

क्षेका/ नासिक /आरडी-बीएसडी/2025-26/102	RO: NASIK:RD-BSD:2025-26:102
दिनांक 24.02.2026	Dated: 24.02.2026

PART – A: TECHNICAL BID

TENDER FOR PROPOSED CONSTRUCTION WORKS COMPOUND
WALL OF RURAL SELF EMPLOYMENT TRAINING INSTITUTE
(RSETI) BUILDING AT NAGAON, DHULE, MAHARASHTRA.

TENDER SUBMITTED BY:

NAME : _____

ADDRESS : _____

DATE : _____

ARCHITECT

M/s. Sandeep Govalkar Design Associates
Architects & Interior Designers.

A3/301-302, SHIVCHHAYA, GILBERT HILL ROAD,
ANDHERI (WEST), MUMBAI - 400 058 INDIA.

TLF: 91- 8828121133

MOBILE: 98211 73563/ 9969699169

NOTICE INVITING TENDERS

Central Bank of India, Nashik Regional Office, invites
Tenders for the Proposed Construction Works of
Compound Wall of RSETI Building at NAGAON, DHULE,
Maharashtra.

The details of tender are as under:

SN	Particulars	Details
1	Name of work	Proposed Construction Works Compound Wall of RSETI Building at NAGAON, DHULE,, Maharashtra
2	Nature of Work	Civil & Related allied Works
3	Time allowed for completion	3 Months (Including Monsoon)
4	Earnest Money Deposit	₹ 40,000.00 (Rupees Forty thousand Only) by means of Demand Draft / Pay Order (Valid for a period of 90 Days from the last date of submission of the tender) from any scheduled Nationalized Bank drawn in favor of Central Bank of India and payable at Nashik.
5	Security Deposit (SD)	For the successful bidder, total security deposit shall be 5% of the contract value. Out of this, 2% of the contract value will be in the form of Initial Security Deposit (ISD); which includes the EMD. Balance 3% shall be deducted from the running account bill of the work at the rate of the 10% of respective running account bill i.e. deduction from each running bill account will be 10%, till the 3% of the contract value is achieved and total of 5%. In case running bills are not paid/submitted, whole 3% of the remaining ISD will be deducted from the final bill paid.
6	Date of issue of tender documents (Technical Bid)form the Bank's website	25.02.2026 to 17.03.2026 from Bank's website (https://centralbank.bank.in).
	(a) Technical Bid Opening	On 18.03.2026 or at any date decided by the Bank if change in Date in due course at Regional Office Nasik
	(b) Price Bid (<u>only to those bidders who qualify in Technical Bid.</u>)	After scrutiny of Technical Bid it will be informed to qualified vendors separately

7	Last date & time for submission of Technical Bid and EMD	17.03.2026 by 03:30 PM Note: It is sole responsibility of the bidder to ensure submission of their Tender documents along with EMD by stipulated date and time at specified address failing which they will not be eligible to Qualify.
8	Address for submission of EMD and cost of tender document.	The Regional Head, Central Bank of India, Nashik Regional Office, Plot No.P-63, MIDC Satpur, Nashik- 422007.
9	Defects Liability / Warranty period	1-year from the date of Virtual Completion Certificate issued by the Bank/ Architect.
10	Liquidated Damages	0.50% per week subject to max. 5% of contract amount for delay in completion of work.
11	Validity of offer	90 days from the date of opening of Price-bid
12	Value of Interim Certificate	Rs. 10 Lakhs. No advance on materials / plant / machinery or mobilization advance shall be paid under any circumstances

18. The Contractor/ Vendor shall sign and stamp each page of the tender document properly spiral bound thereby ensuring the number and sequence of all pages. Tender documents without seal and signature of the authorized tenderer or in loose papers are liable to be rejected.

19. No conditions other than mentioned in the tender will be considered, and if given they will have to be withdrawn before opening of the price-bid.

20. The CBI reserves their rights to accept or reject any or all the tenders, either in whole or in part without assigning any reason(s) for doing so and no claim / correspondence shall be entertained in this regard.

21. In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.

22. Tenders received without EMD and Cost of Tender Documents shall be summarily rejected and such tenders shall not be allowed to participate in the online price bidding process.

23. Non-participation in the tender process may lead to de-empanelment of your firm from Bank's approved list of contractors.

Yours faithfully,
For Sandeep Govalkar Design Associates,

(Sandeep B. Govalkar)
Founder & Principal Architect
Reg.No. CA/88/11359

INSTRUCTIONS TO THE TENDERERS

1.0 Scope of work

Tender for Proposed Construction Works of Compound Wall of RSETI Building at NAGAON, DHULE, Maharashtra

1.1 Site and its location

Proposed RSETI Building for Central Bank of India at NAGAON, DHULE, Maharashtra.

2.0 Tender documents

2.1 The work has to be carried out strictly according to the conditions stipulated in the tender consisting of the following documents and the most workmen like manner.

- Instructions to tenderers
- General conditions of Contract
- Special conditions of Contract
- Price bid
- Drawings & Specifications

2.2 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:

- a. Price Bid
- b. Technical specifications
- c. Special conditions of contract
- d. General conditions of contract
- e. Instructions to Tenderers

2.3 Complete set of tender documents including relative drawings can be downloaded from the Bank's website as per schedule furnished in the NIT.

2.4 The tender documents are not transferable.

3.0 Site Visit

3.1 The tenderer must obtain himself on his own responsibility and his own expenses all information and data that may be required for the purpose of filling this tender document and enter into a contract for the satisfactory performance of the work. The tenderer is requested satisfy himself regarding the availability of water, power, transport and communication facilities, the character quality and quantity of the materials, labour, the law and order situation, climatic conditions local authorities requirement, traffic regulations etc.

The tenderer shall be solely responsible for considering the financial effect of any or all the factors while submitting his tender.

4.0 **Earnest Money**

4.1 The tenderers are requested to submit the Earnest Money of **₹ 40,000.00 (Rupees forty thousand Only)** by means of Demand Draft / Pay Order (Valid for a period of 90 Days from the last date of submission of the tender) from any Scheduled Commercial Bank drawn in favour of CENTRAL BANK OF INDIA and payable at Nashik.

4.2 EMD in any other form other than as specified above will not be accepted. Tender not accompanied by the EMD in accordance with clause 4.1 above shall be rejected.

4.3 No interest will be paid on the EMD.

4.4 EMD of unsuccessful tenderer will be refunded within 30 days of award of Contract.

4.5 EMD of successful tenderer will be retained as a part of security deposit.

5.0 **Initial/ Security Deposit**

The successful tenderer will have to submit a sum equivalent to 2% of accepted tender value less EMD by means of DD drawn in favour of CENTRAL BANK OF INDIA. Payable at Nashik within a period of 10 days from the date of receipt of Letter of Intent (LOI)/ Work Order from CENTRAL BANK OF INDIA.

No interest shall be paid to the amount retained by the CENTRAL BANK OF INDIA as Security Deposit.

6.0 **Signing of contract Documents**

The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract with the respective Regional Office of CENTRAL BANK OF INDIA within 15 days from the receipt of intimation of acceptance of the tender by the CENTRAL BANK OF INDIA. However, the written acceptance of the tenders by the Bank will constitute a binding agreement between the Bank and successful tenderer whether such formal agreement is subsequently entered into or not.

7.0 **Completion Period**

Time is essence of the contract. The work should be completed in all respect accordance with the terms of contract within a period of **90 days (3 months)** from the date of award of work.

8.0 **Validity of tender**

Tenders shall remain valid and open for acceptance for a period of 90 days from the date of opening price bid. If the tenderer withdraws his/her offer during the value period or makes modifications in his/her original offer which are not acceptable to Bank

without prejudice to any other right or remedy the Bank shall be at liberty forfeit the EMD.

9.0 **Liquidated Damages**

The liquidated damages on account of delay shall be 0.50% of Cumulative Awarded value per week subject to a maximum of 5% of Cumulative awarded contract value or actual Invoice Value.

10.0 **Rate and prices:**

10.1 **In case of item rate tender**

10.1.1 The tenderers shall quote their rates for individual items both in words and figure. In case of discrepancy between the rate quoted in words and figures, the unit rate quantity in words will prevail. The amount of each item shall be calculated and the requisite total is given. In case of discrepancy between the unit rate and the total amount calculated from multiplication of unit rate and the quantity the unit rate quoted will govern and the amount will be corrected.

If no rate is quoted for one or more tender items, such tenders shall be treated as **Non Responsive Tenders** and the same shall be summarily rejected.

10.1.2 The tenderers should not change the units as specified in the tender. If any unit is changed the tenders would be evaluated as per the original unit and the Contractor/ Vendor would be paid accordingly.

1.1.3 The tenderer should not change or modify or delete the description of the item. If any discrepancy is observed he should immediately bring to the knowledge of the **CENTRAL BANK OF INDIA**.

11.1.4 Each page of the BOQ shall be signed by the authorized person and cutting or overwriting shall be duly attested by him.

11.1.5 Each page shall be totaled and the grand total shall be given.

11.1.6 The rate quoted shall be firm and shall include all costs, allowances, taxes, levies during the currency of contract including authorized extension, if any, but excluding GST, which shall be mentioned in the bills/invoices separately, as applicable.

11.1.7 The CENTRAL BANK OF INDIA reserve their rights to accept any tenders, either in whole or in part or may entrust the work in phases or may drop the part scope of work at any stage of the project within its sole discretion without assigning any reason(s) for doing so and no claim / correspondence shall be entertained in this regard.

11.1.8 In case, it is decided by the CENTRAL BANK OF INDIA to drop one or more Items from the scope of work at any stage of the project, the Contractor/ Vendor shall not be entitled to raise any claim /compensation for such deleted scope of work. Also, the CENTRAL BANK OF INDIA may consider issuing work order for various

branches/offices in phases but within a reasonable time interval and the Contractor/ Vendor shall be bound to execute the same within the stipulated time period and as per rates quoted by them in this tender without any claim for price escalation.

LETTER OF UNDERTAKING (Annexure I)

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

To,
The Regional Manager,
Central Bank of India, Nashik Regional Office,
Plot No.P-63, MIDC, Satpur,
Nashik- 422007

Dear Sir,

Having examined the drawings, specification, design and schedule of quantities relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender, I/We hereby offer to execute the works specified in the said memorandum at the rates mentioned in the attached Schedule of Quantities and in accordance in all respects with the specifications, design, drawings and instructions in writing referred to in conditions of tender, the Articles of Agreement, Special Conditions, Schedule of Quantities and Conditions of Contract and with such materials as are provided for by, and in all other respects in accordance with such conditions so far as they may be applicable.

MEMORANDUM

- (a) Description of work **Proposed Construction Works of Compound Wall of RSETI Building at NAGAON, DHULE,, Maharashtra**
- (b) Earnest Money **₹ 40,000/- (Rupees forty thousand Only)** by means of Demand Draft / Pay Order (Valid for a period of 90 Days from the last date of submission of the tender) from any scheduled Nationalized Bank drawn in favour of CENTRAL BANK OF INDIA and payable in Nashik. (c) Time allowed for completion 90 days (1 Year) of the Works from Seven day after the date of written Order or date of handing over of the site (Whichever is later) to commence the work
- 1) Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said conditions of contract annexed hereto so far as may be applicable or in default thereof to forfeit and pay to CENTRAL BANK OF INDIA, the amount mentioned in the said contract.
- 2) I / We have deposited a sum of **₹ 40,000/- (Rupees forty thousand Only)** of the total tender amount as Earnest Money with the CENTRAL BANK OF INDIA which amount is not to bear any interest. Should I / We fail to execute the Contract when called upon to

do so I / We do hereby agree that this sum shall be forfeited by me/us to Central Bank of India.

- 3) I/ We understand that as per terms of this tender, the CENTRAL BANK OF INDIA may consider accepting our tender in part or whole or may entrust the various work proposed in phases. We, therefore, undertake that we shall not raise any claim/ compensation in the eventuality of Bank deciding to drop any of the work from the scope of work of this tender at any stage during the contract period. Further, we also undertake to execute the work entrusted to us in phases on our approved rates and within stipulated time limit without any extra claim for price escalation as also provided for in the clause 11.1.6 "Instructions to Tenderers" of this tender.
- 4) I/ We, hereby, also undertake that, we will not raise any claim for any escalation in the prices of any of the material during the contract/execution/completion period including authorized extended contract period, if any.

5) Our Bankers are:

- i)
- ii)

The names of partners of our firm are:

- i)
- ii)

Name of the partner of the firm Authorized to sign Or (Name of person having Power of Attorney to sign the Contract.

(Certified true copy of the Power of Attorney should be attached)

Yours faithfully,
Signature of Contractors.

Signature and addresses of
Witnesses

- i)
- ii)

GENERAL CONDITIONS OF CONTRACT

1.0 Definitions: -

"Contract means the documents forming the tender and the acceptance there of and the formal agreement executed between CENTRAL BANK OF INDIA (client) and the Contractor/ Vendor, together with the documents referred there in including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

1.1 In the contract the following expressions shall, unless the context otherwise requires, have the meaning hereby respectively assigned to them.

1.1.1 "CENTRAL BANK OF INDIA" shall mean Central Bank of India (Client) having its Nashik Regional Office at Plot No.P-63, MIDC Satpur ,Nashik- 422007.

1.1.2 "Architect/ Consultant" shall mean M/s Sandeep Govalkar Design Associates, Architects & Interior Designers.

1.1.3 'The Contractor/ Vendor' shall mean the individual or firm or company undertaking the works and shall include legal personal representative of individual or composing the firm or company and the permitted assignees of individual or firms of company.

1.1.3 The expression 'works' or 'work' shall mean the permanent or temporary work description in the "Scope of work" and / or to be executed in accordance with the contract includes materials, apparatus, equipment, temporary supports, fittings and things of kinds to be provided, the obligations of the Contractor/ Vendor hereunder and work to be done by the Contractor/ Vendor under the contract.

1.1.4 Engineer' shall mean the representative Civil / Electrical Engineer of the CENTRAL BANK OF INDIA

1.1.5 'Drawings' shall mean the drawings prepared and issued by CENTRAL BANK OF INDIA or their Architects and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time.

1.1.6 'Contract value shall mean value of the entire work as stipulated in the letter of acceptance of tender subject such additions thereto or deductions there from as may be made under the provide herein after contained.

1.1.7 Specifications' shall mean the specifications referred to in the tender and modifications thereof as may time to time be furnished or approved by the CENTRAL BANK OF INDIA

1.1.8 "Month" means calendar month.

1.1.9 "Week" means seven consecutive days.

1.1.10 "Day" means a calendar day beginning and ending at 00 Hrs. and 24 Hrs. respectively.

1.1.11 CENTRAL BANK OF INDIA's Engineer" shall mean Engineer in - charge of the Project, as nominated by **CENTRAL BANK OF INDIA, Nashik Regional Office, Maharashtra.**

2.0 CLAUSE

1.0 Total Security Deposit: The Total Security deposit comprise of

- a) Earnest Money Deposit
- b) Initial security deposit
- c) Retention Money

a) Earnest Money Deposit -

- The tenderer shall furnish EMD of **₹ 40,000/- (Rupees forty thousand Only)** in the form of Demand draft or bankers cheque drawn in favour of CENTRAL BANK OF INDIA payable at Nashik, on any Scheduled Commercial Bank.
- No tender shall be considered unless the EMD is so deposited in the required form.
- No interest shall be paid on this EMD. The EMD of the unsuccessful tenderer shall be refunded soon after the decision to award the contract is taken without interest.
- The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time the period when he is required to keep his tender open acceptance by the CENTRAL BANK OF INDIA. or after it is accepted by the CENTRAL BANK OF INDIA. the Contractor/ Vendor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the work within the stipulated time.

b) Initial Security Deposit (ISD)

The amount of ISD shall be 2% of accepted value of tender (In the instant case, the cumulative contract awarded value of all the Circles put together shall be considered for the purpose) including the EMD in the form of DD/PO drawn on any scheduled Bank. The shall be deposited within 15 days from the date of acceptance of tender.

c) Retention Money: -

An amount @ 5% of the bill amount will be retained by the CENTRAL BANK OF INDIA from the bills and the same will be released by the CENTRAL BANK OF INDIA against Defects Liability / Warranty period of valid for 1 year is over.

No advance on materials / plant / machinery or mobilization advance shall be paid in any circumstances

2.0 Language

The language in which the contract documents shall be drawn shall be in English.

2.0 Errors, Omissions and discrepancies

In case of errors, omissions and/ or disagreement between written and scaled dimensions on the drawings or between the drawings and specifications etc., the following order shall apply.

- i) Between scaled and written dimension (or description) on a drawing, the latter shall be adopted.
- ii) Between the written or shown description or dimensions in the drawings and the corresponding one in the specification the former shall be taken as correct.
- iii) Between written description of the item in the specifications and descriptions in bills of quantities of the same item, the former shall be adopted:
 - a) In case of difference between rates written in figures and words, the rate in words shall prevail.
 - b) Between the duplicate / subsequent copies of the tender, the original tender shall be taken as correct.

4.0 Scope of Work:

The Contractor/ Vendor shall carryout, complete and maintain the said work in every respect strictly accordance with this contract and with the directions of and to the satisfaction of the Bank to be communicated through CENTRAL BANK OF INDIA. The CENTRAL BANK OF INDIA at the direction of the Bank from time to time issue further drawings and / or written instructions, detailed directions and explanations which are hereafter collectively referred to as instructions in regard to the variation or modification of the design, quality or quantity of any work or the addition or omission or substitution work. Any discrepancy in the drawings or between BOQ and / or drawings and / or specifications should be brought to the notice of CENTRAL BANK OF INDIA immediately. The removal from the site of any material brought thereon by the Contractor/ Vendor and any substitution of any other materials therefore the removal and / or re-executed of any work executed by him. The dismissal from the work of any person engaged thereupon.

5.0 i) Letter of Acceptance:

Within the validity period of the tender the CENTRAL BANK OF INDIA shall issue a letter of acceptance directly by registered post or otherwise depositing at the office of

the Contractor/ Vendor as given in the tender to enter into a Contract for the execution of the work as per the terms of the tender. The letter of acceptance shall constitute a binding contract between the CENTRAL BANK OF INDIA and the Contractor/ Vendor.

ii) **Contract Agreement:**

On receipt of intimation of the acceptance of tender from the CENTRAL BANK OF INDIA the successful tenderer shall be bound to implement the contract and within ten days there of shall sign an agreement in a non-judicial stamp paper of appropriate value.

6.0 **Ownership of drawings:**

All drawings, specifications and copies thereof furnished by the CENTRAL BANK OF INDIA are the properties of the CENTRAL BANK OF INDIA. They are not to be used on other work.

7.0 **Detailed drawings and instructions:**

The CENTRAL BANK OF INDIA shall furnish with reasonable proper additional instructions by means of drawings or otherwise necessary for the execution of the work. All such drawings and instructions shall be consistent with contract documents, true developments thereof and reasonably inferable there.

The work shall be executed in conformity therewith and the Contractor/ Vendor prepare a detailed program schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the CENTRAL BANK OF INDIA through the architect/consultant

7.0 **Copies of agreement**

Two copies of agreement duly signed by both the parties with the drawings shall be handed over to the Contractor/ Vendors.

8.0 **Liquidated damages:**

If the Contractor/ Vendor fails to maintain the required progress in terms of relevant clause under General Conditions of Contract (GCC) or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion, without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the CENTRAL BANK OF INDIA on account of such breach to pay a liquidated damage at the rate of 0.50% of the contract value subject to a maximum of 5% of the contract value.

9.0 **Materials, Appliances and Employees**

Unless or otherwise specified the Contractor/ Vendor shall provide and pay for all materials, labour, water, power, tools, equipment transportation and any other facilities that are required for the satisfactory execution and completion of the work. Unless or otherwise specified all materials shall be new and both workmanship and materials shall be best quality. The Contractor/ Vendor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work any unfit person or anyone not skilled in the work assigned to him. Workman whose work or behavior is found to be unsatisfactory by the CENTRAL BANK OF INDIA he shall be removed from the site immediately.

10.0 Permits, Laws and Regulations:

Permits and licenses required for the execution of the work shall be obtained by the Contractor/ Vendor at his own expenses. The Contractor/ Vendor shall give notices and comply with the regulations, laws, and ordinances rules, applicable to the contract. If the Contractor/ Vendor observes any discrepancy between the drawings and specifications, he shall promptly notify the CENTRAL BANK OF INDIA in writing. If the Contractor/ Vendor performs any act, which is against the law, rules and regulations he shall meet all the costs arising there from and shall indemnify the CENTRAL BANK OF INDIA any legal actions arising there from.

11.0 Setting out Work:

The Contractor/ Vendor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the CENTRAL BANK OF INDIA before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact that the layout had been approved by CENTRAL BANK OF INDIA, the Contractor/ Vendor shall be responsible for the same and shall at his own expenses rectify such error, if so, required to satisfaction of the CENTRAL BANK OF INDIA.

12.0 Protection of works and property:

The Contractor/ Vendor shall continuously maintain adequate protection of all his work from damage and shall protect the CENTRAL BANK OF INDIA's properties from injury or loss arising in connection with contract. He shall make good any such damage, injury, loss, except due to causes beyond his control and due to his fault or negligence.

He shall take adequate care and steps for protection of the adjacent properties. The Contractor/ Vendor shall take all precautions for safety and protections of his employees on the works and shall comply with all applicable provisions of Govt. and local bodies' safety laws and building codes to prevent accidents, or injuries to persons or property on about or adjacent to his place of work. The Contractor/ Vendor shall take insurance covers as per clause at his own cost. The policy may be taken in joint names of the Contractor/ Vendor and the CENTRAL BANK OF INDIA and the original policy may be lodged with the CENTRAL BANK OF INDIA.

13.0 Inspection of work:

The CENTRAL BANK OF INDIA or their representatives shall at all reasonable times have free access to the work site and / or to the workshop, factories, or other places where materials are lying or from where they are obtained and the Contractor/ Vendor shall give every facility to the CENTRAL BANK OF INDIA and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the CENTRAL BANK OF INDIA except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its construction stage or its completion can also be inspected by the Central Vigilance commission.

14.0 Assignment and subletting

The whole of work included in the contract shall be executed the Contractor/ Vendor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share thereof or interest therein without the written consent of the CENTRAL BANK OF INDIA and no undertaking shall relieve the Contractor/ Vendor from the responsibility of the Contractor/ Vendor from active & superintendence of the work during its progress.

15.0 Quality of materials, workmanship & Test

All materials and workmanship shall be best of the respective kinds as described in the contract/BOQ and in accordance with CENTRAL BANK OF INDIA's instructions and shall be subject from time to time to such tests as the CENTRAL BANK OF INDIA. May direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The Contractor/ Vendor shall provide such assistance, instruments, machinery, labor, and materials as are normally required for examining measuring sampling and testing any material or part of work before incorporation in the work for testing as may be selected and required by the CENTRAL BANK OF INDIA.

ii) Samples

All samples of adequate numbers, size, shades & pattern as per specifications shall be supplied by the Contractor/ Vendor without any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature / test certificate of the same shall be provided to the satisfaction of the CENTRAL BANK OF INDIA. Before submitting the sample / literature the Contractor/ Vendor shall satisfy himself that the material / equipment for which he is submitting the sample / literature meet with the requirement of tender specifications. Only when the samples are approved in writing by CENTRAL BANK OF INDIA the Contractor/ Vendor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be signed by CENTRAL BANK OF INDIA for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. CENTRAL BANK OF INDIA shall take reasonable time to approve the sample. Any delay that

might occur in approving the samples for reasons of its not meeting the specifications or other discrepancies inadequacy in furnishing samples of best qualities from various manufacturers and such other aspects causing delay on the approval of the materials / equipment etc. shall be to the account of the Contractor/ Vendor.

iii) **Cost of tests**

The cost of making any test shall be borne by the Contractor/ Vendor if such test is intended by or provided for in the specification or BOQ.

16.0 Obtaining information related to execution of work

No claim by the Contractor/ Vendor for additional payment shall be entertained which is consequent upon failure on his part to obtain correct information as to any matter affecting the execution of the work nor any misunderstanding or the obtaining incorrect information or the failure to obtain correct information relieve him from any risks or from the entire responsibility for the fulfillment of contract.

17.0 Contractor/ Vendor's superintendence

The Contractor/ Vendor shall give necessary personal superintendence during the execution the works and as long, thereafter, as the CENTRAL BANK OF INDIA may consider necessary until the expiry of the defects liability period, stated here to.

18.0 Quantities

The bill of quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements and quantities. The rate quoted shall remain valid for variation of quantity against individual item to any extent.

19.0 Works to be measured

CENTRAL BANK OF INDIA may from time to time intimate to the Contractor/ Vendor that the work is required to be measured and the Contractor/ Vendor shall forthwith attend or send a qualified representative to assist the CENTRAL BANK OF INDIA in taking such measurements and calculation and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detail in the specifications. The representative of CENTRAL BANK OF INDIA shall take measurements with the Contractor/ Vendor's representative and the measurements shall be entered in the measurement book. The Contractor/ Vendor or his authorized representative shall sign all the pages of the measurement book in which the measurements have been recorded in token of his acceptance. All the corrections shall be duly attested by both representatives. No over writings shall be made in the Measurement book should the Contractor/ Vendor not attend or neglect or omit to depute his representative to take measurements the measurements recorded by the representative of the CENTRAL BANK OF INDIA shall

be final. All authorized extra work, omissions and all variations made shall be included such measurement.

20.0 Variations

No alteration, omission or variation ordered in writing by CENTRAL BANK OF INDIA vitiates the contract. In case the CENTRAL BANK OF INDIA thinks proper at any stage during the progress of works to make any alteration in, or additions to or omission from the works or any. alteration in the kind or quality of the materials to be used therein, the CENTRAL BANK OF INDIA shall give notice thereof in writing to the Contractor/ Vendor shall confirm in writing within seven days of giving such oral instructions the contract shall alter to, add to, or omit from as the case may be in accordance with such notice but the Contractor/ Vendor shall not do any work extra to or make any alterations or additions to or omissions from the works or any deviation from any of the provisions of the contract, stipulations, specifications or contract drawings without previous consent in writing of the CENTRAL BANK OF INDIA and the value of such extras, alterations, additions or omissions shall in all cases be determined by the CENTRAL BANK OF INDIA and the same shall be added to or deducted from the contract value, as the case may be.

21.0 Valuation of Variations

No claim for an extra Item shall be allowed unless it shall have been executed under the authority of the CENTRAL BANK OF INDIA with the concurrence of the CENTRAL BANK OF INDIA as herein mentioned. Any such extra is herein referred to as authorized extra and shall be made in accordance with the following provisions.

- a)
 - (i) The net rates or prices in the contract shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced herein.
 - (ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.
- b) The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of Works are carried out, otherwise the prices for the same shall be valued under sub Clause 'c' hereunder.
- c) Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the Contractor/ Vendor shall within 7 days of the receipt of the letter of acceptance inform the CENTRAL BANK OF INDIA of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the CENTRAL BANK OF INDIA shall fix such rate or prices as in the circumstances in its opinion are reasonable and proper, based on the market rate.

- d) Where extra work cannot be properly measured or valued the Contractor/ Vendor shall be allowed day work prices at the net rates stated in the tender, of the BOQ or, if not, so stated then in accordance with the local day work rates and wages for the district; provided that in either case, vouchers specifying the daily time (and if required by the CENTRAL BANK OF INDIA) the workman's name and materials employed be delivered for verifications to the Architect /consultant at or before the end of the week following that in which the work has been executed.
- e) It is further clarified that for all such authorized extra items where rates cannot be derived from the tender, the Contractor/ Vendor shall submit rates duly supported by rate analysis worked on the 'market rate basis for material, labour hire / running charges of equipment and wastages etc. plus 15% towards establishment charges, Contractor/ Vendor's overheads and profit. Such items shall, not be eligible for escalation.

22.0 Final measurement

The measurement and valuation in respect of the contract shall be completed within one months of the virtual completion of the work.

23.0 Virtual Completion Certificate (VCC)

On successful completion of entire works covered by the contract to the full satisfaction of the CENTRAL BANK OF INDIA, the contractor shall ensure that the following works have been completed the satisfaction of the Bank/ Consultant:

- a) Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour equipment and machinery.
- b) Demolish, dismantle and remove the contractor's site office, temporary works, structure including labour sheds/camps and constructions and other items and things whatsoever brought upon or erected at the site or any land allotted to the contractor by the CENTRAL BANK OF INDIA not incorporated in the permanent works.
- c) Remove all rubbish, debris etc. from the site and the land allotted to the contractor the CENTRAL BANK OF INDIA and shall clear, level and dress, compact the site as required by the CENTRAL BANK OF INDIA.
- d) Shall put the CENTRAL BANK OF INDIA in undisputed custody and possession of the site and all land allot by the CENTRAL BANK OF INDIA
- e) Shall hand over the work in a peaceful manner to the CENTRAL BANK OF INDIA
- f) All defects / imperfections have been attended and rectified as pointed out by the Architects to the full satisfaction of CENTRAL BANK OF INDIA

Upon the satisfactory fulfillment by the contractor as stated above, the contractor is entitled to apply to the Architect / consultant is satisfied of the completion of work. Relative to which the completion certificate has been sought, the Architect/ consultant shall within fourteen (14) days of the receipt of the application for completion certificate, issue a VCC in respect of the work for which the VCC has applied.

This issuance of a VCC shall not be without prejudice to the CENTRAL BANK OF INDIA's rights and contractor liabilities under the contract including the contractor's liability for defects liability nor shall the issuance of VCC in respect of the works or work at any site be construction as a waiver of any right or claim of the CENTRAL BANK OF INDIA against the contractor in respect of or work at the site and in respect of which the VCC has been issued.

24.0 Insurance of works

24.1 Without limiting his obligations and responsibilities under the contract the Contractor/ Vendor shall insure in the joint names of the CENTRAL BANK OF INDIA and the Contractor/ Vendor against all loss of damages from whatever cause arising other than the excepted risks, for which he is responsible under the terms of contract and in such a manner that the CENTRAL BANK OF INDIA. and Contractor/ Vendor are covered for the period stipulated in clause 28 of GCC and are also covered during the period of maintenance for loss or damage arising from a cause, occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the Contractor/ Vendor in the course of any operations carried out by him for the purpose of complying with his obligations under clause.

- a) The Works for the time being executed to the estimated current Contract value thereof, or such additional sum as may be specified together with the materials for incorporation in the works at their replacement value.
- b) Such insurance shall be affected with an insurer and in terms approved by the CENTRAL BANK OF INDIA which approval shall not be unreasonably withheld and the Contractor/ Vendor shall whenever have required produce to the CENTRAL BANK OF INDIA the policy of insurance and the receipts for payment of the current premiums.

25.0 Damage to persons and property

The Contractor/ Vendor shall, except if and so far as the contract provides otherwise indemnify the CENTRAL BANK OF INDIA against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to:

- a) The permanent use or occupation of land by or any part thereof.

- b) The right of CENTRAL BANK OF INDIA to execute the works or any part thereof on, over, under, in or through any lands.
- c) Injuries or damages to persons or properties which are unavoidable result of the execution or maintenance of the works in accordance with the contract
- d) Injuries or damage to persons or property resulting from any act or neglect of the CENTRAL BANK OF INDIA their agents, employees or other Contractor/ Vendors not being employed by the Contractor/ Vendor or for or in respect of any claims, proceedings, damages, costs, charges and expenses in respect thereof or in relation thereto or where the injury or damage was contributed to by the Contractor/ Vendor, his servants or agents such part of the compensation as may be just and equitable having regard to the extent of the responsibility of the CENTRAL BANK OF INDIA, their employees, or agents or other employees, or agents or other Contractor/ Vendors for the damage or injury.

26.0 Contractor/ Vendor to indemnify CENTRAL BANK OF INDIA

The Contractor/ Vendor shall indemnify the CENTRAL BANK OF INDIA. against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision sub-clause 25 of this clause.

27.0 Contractor/ Vendor's superintendence

The Contractor/ Vendor shall fully indemnify and keep indemnified the CENTRAL BANK OF INDIA. against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against CENTRAL BANK OF INDIA. in respect of such matters as aforesaid the Contractor/ Vendor shall be immediately notified thereof and the Contractor/ Vendor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the Contractor/ Vendor shall not be liable to indemnify the CENTRAL BANK OF INDIA. if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the CENTRAL BANK OF INDIA in this behalf.

28.0 Third Party Insurance

- 28.1 Before commencing the execution of the work the Contractor/ Vendor but without limiting his obligations and responsibilities under clause 24.0 of GCC shall insure against his liability for any material or physical damage, loss, or injury which may occur to any property including that of CENTRAL BANK OF INDIA., or to any person, including any employee of the CENTRAL BANK OF INDIA, by or arising out of the

28.2 Execution of the works or in the carrying out of the contract, otherwise than due to the matters referred to in the provision to clause 24.0 thereof.

28.3 Minimum amount of Third Party Insurance

Such insurance shall be affected with an insurer and in terms approved by the CENTRAL BANK OF INDIA whose approval shall not be reasonably withheld and for at least the amount stated below. The Contractor/ Vendor shall, whenever required, produce to the CENTRAL BANK OF INDIA the policy or policies of insurance cover and receipts for payment of the current premiums.

The minimum insurance cover for physical property, injury, and death is Rs.10 Lakh per occurrence with the number of occurrences limited to four. After each occurrence Contractor/ Vendor will pay additional premium necessary to make insurance valid for four occurrences always.

29.0 Accident or Injury to workman:

i. The CENTRAL BANK OF INDIA 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/ Vendor or any subcontractor/ Vendor, save and except an accident or injury resulting from any act or default of the CENTRAL BANK OF INDIA or their agents, or employees. The Contractor/ Vendor shall indemnify and keep indemnified CENTRAL BANK OF INDIA 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.

ii. Insurance against accidents etc. to workmen

The Contractor/ Vendor shall insure against such liability with an insurer approved by the CENTRAL BANK OF INDIA during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the architect / consultant such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-Contractor/ Vendor the Contractor/ Vendor's obligation to insured as aforesaid under this sub-clause shall be satisfied if the sub-Contractor/ Vendor shall have insured against the liability in respect of such persons in such manner that CENTRAL BANK OF INDIA. is indemnified under the policy but the shall require such sub-Vendor to produce to the CENTRAL BANK OF INDIA when such policy of insurance and the receipt for the payment of the current premium.

iii. Remedy on Contractor/ Vendor's failure to insure

If the Contractor/ Vendor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the CENTRAL BANK OF INDIA may affect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the CENTRAL BANK OF INDIA as aforesaid from any amount due or which may become due to the Contractor/ Vendor or recover the same as debt from the Contractor/ Vendor.

- iv. Without prejudice to the others rights of the CENTRAL BANK OF INDIA against Contractor/ Vendors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the Contractor/ Vendor the amount of any damages costs, charges, and other expenses paid by the CENTRAL BANK OF INDIA and which are payable by the Contractor/ Vendors under this clause. The Contractor/ Vendor shall upon settlement by the Insurer of any claim made against the insurer pursuant to a policy taken under this clause, proceed with due diligence to rebuild or repair the works destroyed or damaged. In this event all the monies received from the Insurer in respect of such damage shall be paid to the Contractor/ Vendor and the Contractor/ Vendor shall not be entitled to any further payment in respect of the expenditure incurred for rebuilding or repairing of the materials or goods destroyed or damaged.

30.0 Commencement of Works:

The date of commencement of the work will be reckoned as the date of award of work by CENTRAL BANK OF INDIA or the date of execution of agreement with CENTRAL BANK OF INDIA.

31.0 Time for completion

Time is essence of the contract and shall be strictly observed by the Contractor/ Vendor. The entire work shall be completed within a period of **90 calendar days** from the date of commencement.

32.0 Extension of time

If, the work be delayed for reasons beyond the control of the Contractor/ Vendor, the Contractor/ Vendor may submit a recommendation to the CENTRAL BANK OF INDIA to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the Contractor/ Vendor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the Contractor/ Vendor shall apply to the CENTRAL BANK OF INDIA. in writing at least 30 Days before the expiry of the scheduled time and while applying for extension of time he shall furnish the reason in detail and his justification if any, for the delays in the prescribed format for granting

extension of time. While granting extension of time the Contractor/ Vendor shall be informed the period extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the provision of liquidated damages as stated under clause 8.0 shall become applicable. Further the contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

33.0 **Rate of progress**

Whole of the materials, plant and labour to be provided by the Contractor/ Vendor and the mode, manner and speed of execution and maintenance of the works are to be of a kind and conducted in a manner to the satisfaction of the CENTRAL BANK OF INDIA. Should the rate of progress of the work or any part thereof be at any time be in the opinion the CENTRAL BANK OF INDIA too Slow to ensure the completion of the whole of the work the prescribed time or extended time for completion, the CENTRAL BANK OF INDIA shall thereupon take such steps as considered necessary to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the CENTRAL BANK OF INDIA neither shall relieve the Contractor/ Vendor from fulfilling obligations under the contract nor will he be entitled to raise any claims arising out of such directions.

34.0 Work **during nights and holidays**

Subject to any provision to the contrary contained in the contract no permanent work shall, as herein provided, be carried on during the night or on holidays without the permission in writing of the CENTRAL BANK OF INDIA, except when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the Contractor/ Contractor/ Vendor shall immediately advise the CENTRAL BANK OF INDIA. However, the provisions of the clause shall not be applicable in the case of any work which becomes essential to carry by rotary or double shifts in order to achieve the progress and quality of the part of the works being technically required / continued with the prior approval of the CENTRAL BANK OF INDIA at no extra cost.

All work at night after obtaining approval from competent authorities of CENTRAL BANK OF INDIA shall be carried out without unreasonable noise and disturbance.

35.0 No **compensation or restrictions of work**

If at any time after acceptance of the tender, CENTRAL BANK OF INDIA. shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any part of the work to be carried out. CENTRAL BANK OF INDIA shall give notice in writing to that effect to the Contractor/ Vendor and the Contractor/ Vendor shall act accordingly in the matter. The Contractor/ Vendor shall have no claim to any payment of compensation or otherwise whatsoever on account of any profit or

Advantage which he might have derived from the execution of the Work fully but which he did not derive in consequence of the foreclosure of the whole or part of the work.

Provided that the Vendor shall be paid the charges on the cartage of only materials actually and bona-fide brought to the site of the work by the Contractor/ Vendor and rendered surplus as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the Vendor, provided however that the CENTRAL BANK OF INDIA shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less.

"In case of such stores having been issued from CENTRAL BANK OF INDIA stores and returned by the Contractor/ Vendor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the Vendor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the Contractor/ Vendor and in this respect the decision of Architect / consultant shall be final.

36.0 Suspension of work

- i) The Contractor/ Vendor shall, on receipt of the order in writing of CENTRAL BANK OF INDIA (whose decision shall be final and binding on the Contractor/ Vendor) suspend the progress of works or any part thereof for such time and in such manner as CENTRAL BANK OF INDIA may consider necessary so as not to cause any damage or injury to the work already done or endanger the safety thereof for any of following reasons:
 - a) On account any default on the part of the Contractor/ Vendor, or
 - b) For proper execution of the works or part thereof for reasons other than the default the Vendor/ Contractor, or
 - c) For safety of the works or part thereof.

The Contractor / Vendor shall, during such suspension, properly protect and secure the works the extent necessary and carry out the instructions given in that behalf by the CENTRAL BANK OF INDIA.

- ii) If the suspension is ordered for reasons (b) and (c) in sub-para (i) above:

The Contractor/ Vendor shall be entitled to an extension of time equal to the period of every such suspension. No compensation whatsoever shall be paid on this account.

37.0 Action when the whole security deposit is forfeited

In any case in which under any clause or clauses of this contract, the Contractor/ Vendor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit the CENTRAL BANK OF INDIA shall have the power to adopt any of the following course as they may deem best suited to the interest of the CENTRAL BANK OF INDIA:

- a) To rescind the contract (of which rescission notice in writing to the Contractor/ Vendor by CENTRAL BANK OF INDIA shall be conclusive evidence) and in which case the security, deposit of the Contractor/ Vendor shall be forfeited and be absolutely at the disposal of CENTRAL BANK OF INDIA
- b) To employ labour paid by the CENTRAL BANK OF INDIA and to supply materials to carry out the work, or part of the work, debiting the Contractor/ Vendor with the cost of the labour and materials cost of such labour and materials (as worked out by the CENTRAL BANK OF INDIA shall final and conclusive against the Contractor/ Vendor) and crediting him with the value of the work done, in all respects in the same manner and at the same manner and at the same rates as if it had been carried out by the Contractor/ Vendor under the terms of this contract certificate of CENTRAL BANK OF INDIA as to the value of work done shall be final conclusive against the Contractor/ Vendor.
- c) To measure up the work of the Contractor/ Vendor, and to take such part thereof as shall be unexecuted, out of his hands, and to give it to another Contractor/ Vendor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original Contractor/ Vendor, if the whole work had been executed by him (The amount of which excess the certificates in writing of the CENTRAL BANK OF INDIA shall final and conclusive) shall be borne by original Contractor/ Vendor and may be deducted if any money due to him by CENTRAL BANK OF INDIA under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or sufficient part thereof.

In the event of any of above courses being adopted by the CENTRAL BANK OF INDIA the Contractor/ Vendor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material or entered into any engagements or make any advances on account of, or with a view to the execution of the work or the performance of the contract and in case the contract shall be rescind under the provision aforesaid, the Contractor/ Vendor shall not be entitled to recover or to be paid any sum or any work thereto for actually performed under this contract, unless, and until CENTRAL BANK OF INDIA will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

38.0 Owner's right to terminate the contract

If the Contractor/ Vendor being an individual or a firm commit any 'Act of insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Govt. and of the Official Assignee of the liquidator in such acts of insolvency or winding up shall be unable within seven days after notice to him to do so, to show to the reasonable satisfaction of the CENTRAL BANK OF INDIA that he is able to carry out and fulfill the contract, and to dye security therefore if so required by the CENTRAL BANK OF INDIA

Or if the Contractor/ Vendor (whether an individual firm or incorporated Company) shall suffer execution to be issued or shall suffer any payment under this contract to be attached by or on behalf of any of the creditors of the Contractor/ Vendor.

Or shall assign or sublet this contract without the consent in writing of the CENTRAL BANK OF INDIA or shall charge or encumber this contract or any payment due to which may become due to the Contractor/ Vendor there under:

- a) has abandoned the contract; or
- b) has failed to commence the works or has without any lawful excuse under these conditions suspended the progress of the works for 14 days after receiving from the CENTRAL BANK OF INDIA written notice to proceed, or
- c) has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or has failed to remove the materials from the site or to pull down and replace work within seven days after written notice from the CENTRAL BANK OF INDIA that the said materials were condemned and rejected by the CENTRAL BANK OF INDIA under these conditions; or has neglected or failed persistently to observe and perform all or any of the acts matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the Contractor/ Vendor to observe or perform the same or has to the detriment of good workmanship or in defiance of the CENTRAL BANK OF INDIA to the contrary subject any part of the contract.

Then and in any of said cases the CENTRAL BANK OF INDIA may not withstanding any previous waiver, after giving seven days' notice in writing to the Contractor/ Vendor, determine the contract, but without thereby affecting the powers of the CENTRAL BANK OF INDIA or the obligation and liabilities of the Contractor/ Vendor the whole of which shall continue in force as fully as if the contract had not been determined and as if the works subsequently had been executed by or on behalf of the Contractor/ Vendor. And, further the CENTRAL BANK OF INDIA or their employees may enter upon and take possession of the work and all plants, took scaffoldings, materials, sheds, machineries lying upon the premises or on the adjoining lands or roads use the same by means of their own employees or workmen in carrying on and completing the work or by engaging any other Contractor/ Vendors or persons to the work and the Contractor/ Vendor shall not in any was interrupt or do any act, matter or thing to prevent or hinder such other

Contractor/ Vendor or other persons employed for complement and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient to the CENTRAL BANK OF INDIA a notice in writing will be given to the Contractor/ Vendor to remove his surplus materials and plants and should the Contractor/ Vendor fail to do so within 14 days after receive thereof by him the CENTRAL BANK OF INDIA sell the same by publication, and after due publication, and shall, adjust the amount realized by such auction. The Contractor/ Vendor shall have no right to question any of the act of the CENTRAL BANK OF INDIA incidental to the sale of the materials etc.

39.0 Certificate of payment

The contractor shall be entitled under the certificates to be issued by the Architect / consultant to the contractor within 10 working days from the date of certificate to payment from CENTRAL BANK OF INDIA from time to time. The CENTRAL BANK OF INDIA shall recover the statutory recovering other dues including the retention amount from the certificate of payment.

Provided always that the issue of any certificate by the Architect / consultant during progress of works or completion shall not have effect as certificate of satisfaction relieve the contractor from his liability under clause.

The Architect / consultant shall have power to withhold the certificate if the work or in part thereof is not carried out to their satisfaction.

The Architect / consultant may by any certificate make any corrections required previous certificate.

The CENTRAL BANK OF INDIA shall modify the certificate of payment as issued by the architect / consultant from time to time while making the payment

The contractor shall submit interim bills only after taking actual measurements and properly recorded in the Measurement books

The Contractor shall not submit interim bills when the approximate value of work done by him is less than **Rs. 10.00 Lakh.**

The final bill may be submitted by contractor within a period of one month from the date of virtual completion and Architect / consultant shall issue the certificate of payment within a period of two months. The CENTRAL BANK OF INDIA shall pay the amount within a period of three months from the date of issue of certificate provided there is no dispute in respect of rates and quantities.

The contractor shall submit the interim bills in the prescribed format with all details.

After successful completion of work, the Contractor/ Vendor shall prepare separate bills for each branch/office/ATM/site and submit the branch-wise Tax Invoices/Bills along with specified **5 to 10 years Warrantee on Company Warrantee Cards / on Rs.500/- Non-Judicial Stamp paper** for Supply of Furniture/ Waterproofing Works or other similar works along with a certificate/acknowledgement certifying completion of work by CENTRAL BANK OF INDIA or their authorized representative.

No advance on materials / plant / machinery or mobilization advance shall be paid in any circumstances.

The CENTRAL BANK OF INDIA shall recover the statutory recoveries viz. TDS, retention and other dues, if any, as per contractual provisions.

The CENTRAL BANK OF INDIA shall have power to withhold the payment if the work or part thereof is not carried out to their satisfaction.

40.0 **A. Settlement of Disputes and Arbitration**

i. Any and all disputes, controversies and conflicts ("Disputes") arising out of or in connection with this tender and/or, ensuing Contract or the performance or nonperformance of the rights and obligations set forth herein, or the breach, termination, invalidity or interpretation thereof shall be referred for arbitration in terms of the Arbitration and Conciliation Act, 1996 (Arbitration Act) or any amendments thereof. Prior to submitting the Disputes to arbitration the parties shall make all endeavors to settle the dispute/s through mutual negotiation and discussions. In the event that the said dispute/s are not settled within 30 days of the arising thereof as evidenced through the first written communication from any party notifying the other regarding the disputes, the same shall finally be settled and determined by arbitration as above.

ii. The place of arbitration shall be at Nashik and the language used in the arbitral proceedings shall be English. Arbitration shall be conducted by a mutually appointed sole arbitrator. If the Parties are unable to agree upon a sole Arbitrator, each Party shall appoint one arbitrator and the two arbitrators so appointed by the Parties shall appoint the third arbitrator, who shall be the Chairman of the Arbitral Tribunal.

iii. The arbitral award shall be in writing and subject to the provisions of the Arbitration and Conciliation Act, 1996 Act shall be enforceable in any court of competent jurisdiction.

iv. Pending the submission to arbitration and thereafter, till the Arbitrator or the Arbitral Tribunal renders the award or decision, the Parties shall, except in the event of termination of this Agreement or in the event of any interim order/award is granted under the afore stated Act, continue to perform their obligations under this Agreement.

B. GOVERNING LAW & JURISDICTION

The tender and/or, ensuing Contract shall be governed and construed in accordance with the Laws of Republic of India.

Subject to Clause 40.0, A, the Parties agree to submit to the exclusive jurisdiction of the appropriate courts at (**Nashik**) in connection with any dispute between the Parties under the tender and/or, ensuing Contract.

41.0 Water Supply

The contractor shall make his own arrangements for water required for the work and nothing extra will be paid for the same. This will be subject to the following condition:

- i) That the water used by the contractor shall be fit for construction purposes to the satisfaction of the Architect / consultant's.
- ii) The contractor shall make alternative arrangements for the supply of water if the arrangement made by the contractor for procurement of water in the opinion of the Architect / consultant is unsatisfactory.
- iii) In case contractor is permitted to use CENTRAL BANK OF INDIA's source of water i.e. Municipal connection, bore well (existing or new) etc., the CENTRAL BANK OF INDIA may consider recovering @1% of contract amount from the final bill of contractor.

41.1 The contractor shall construct temporary well / tube well in CENTRAL BANK OF INDIA land for taking water for construction purposes only after obtaining permission in writing from the CENTRAL BANK OF INDIA. The contractor has to make his own arrangements for drawing and distributing the water at his own cost. He has to make necessary arrangements. To avoid any accidents or damages caused due to construction and subsequent maintenance of the wells. He has to obtain necessary approvals from local authorities, if required, at his own cost. He shall restore the ground to its original condition after wells are dismantled on completion of work or hand over the well to the CENTRAL BANK OF INDIA without any compensation as directed by the Architect / consultant.

42.0 Power Supply

The contractor shall make his own arrangements for power and supply / distribution system for driving plant or machinery for the work and for lighting purpose at his own cost, the cost of running and maintenance of the plants are to be included in his tender prices, He shall pay all fees and charges required, by the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

43.0 Treasure Trove etc.

Any treasure trove, coin or object antique which may be found on the site shall be the property of CENTRAL BANK OF INDIA and shall be handed over to the bank immediately.

44.0 **Method of measurement**

Unless otherwise mentioned in the schedule of quantities or in mode of measurement, the measurement will be on the net quantities or work produced in accordance with up to date rules laid down by the Bureau of Indian Standards. In the event any dispute / disagreement the decision of the CENTRAL BANK OF INDIA shall be final and binding on the corrector.

45.0 **Maintenance of registers**

The contractor shall maintain the following registers as per the enclosed perform at site of work and should produce the same for inspection of CENTRAL BANK OF INDIA /Architect / consultant whenever desired by them. The contractor shall also maintain the records / registers as required by the local authorities / Govt. from time to time.

- I) Register for secured advance
- ii) Register for hindrance to work
- iii) Register for running account bill
- iv) Register for labour

46.0 **Force Majeure**

- 46.1 Neither Contractor/ Vendor nor CENTRAL BANK OF INDIA shall be considered in default in performance of the obligations if such performance is prevented or delayed by events such as but not war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of or for any other cause beyond the reasonable control of the party affected or prevents or delayed. However, a notice is required to be given within 30 days from the happening of the event with complete details, to the other party to the contract.
- 46.2 As soon as the cause of force majeure has been removed the party whose ability perform its obligations has been affected, shall notify the other of such cessation and the actual delay incurred in such affected activity adducing necessary evidence in support thereof.
- 46.3 From the date of occurrence of a case of force majeure obligations of the party affected shall be suspended during the continuance of any inability so caused. With the caused itself and inability resulting there from having been removed, the agreed time completion of the respective obligations under this agreement shall stand extended a period equal to the period of delay occasioned by such events.
- 46.4 Should one or both parties be prevented from fulfilling the contractual obligations by state of force majeure lasting to a period of 6 months or more the two parties, shall mutually decide regarding the future execution of this agreement.

47.0 Local laws, Acts Regulations:

The Contractor/ Vendor shall strictly adhere to all prevailing labour laws including the contract labour (regulation and abolition act of 1970) and other safety regulations. The Contractor/ Vendors should comply with the provision of all labour legislation including the latest requirements of the Acts, laws, any other regulations that are applicable to the execution of the project.

48.0 Accidents

The Contractor/ Vendor shall immediately on occurrence of any accident at or about the site or in connection with the execution of the work report such accident to the architect / consultant. The Contractor/ Vendor shall also such report immediately to the competent authority whenever such report is required to be lodged by the law and take appropriate actions thereof.

49.0 The contractor's shall be bound to comply the following provision in terms of

"Restrictions imposed by the Government of India, Ministry of Finance Department of Expenditure under Rule 144 (XI) of General Financial Rules 2017 vide their order no. F. No 6/18/2019/PPD dated 23rd July 2020" as under;

- I. Any bidder from a country which shares a land border with India will be eligible to bid in this tender ONLY if the bidder is registered with the Competent Authority (registration committee constituted by the Department for Promotion of Industry and Internal Trade).
- II. 'Bidder' (including the term 'tenderer', 'consultant' or 'service provider' in certain contexts) means any person or firm or company, including any member of a consortium or joint venture (that is an association of several persons, or firms or companies), every artificial judicial person not falling in any of the descriptions of bidders stated hereinbefore, including any agency branch or office controlled by such person, participating in a procurement process.
- III. 'Bidder from a country which shares a land border with India (such a country)' for this purpose means:
 - a. An entity incorporated, established or registered in such a country; or
 - b. A subsidiary of an entity incorporated, established or registered in such a country; or
 - c. An entity substantially controlled through entities incorporated, established or registered in such a country; or
 - d. An entity whose beneficial owner is situated in such a country; or
 - e. An Indian (or other) agent of such an entity; or
 - f. A natural person who is a citizen of such a country; or
 - g. A consortium or joint venture where any member of the consortium or joint venture falls under any of the above
- IV. The beneficial owner for the purpose of (iii) above will be as under:

1. In case of A Company or Limited Liability Partnership, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more judicial person, has a controlling interest or who exercises control through other means.
Explanation-
 - a. "Controlling ownership interest" means ownership of or entitlement to more than twenty five percent of shares or capital or profits of the company;
 - b. "Control" shall include the right to appoint majority of the directors or to control the management or policy decisions including by virtue of their shareholding or management rights or shareholders agreements or voting agreements;
2. In case of a partnership firm, the beneficial owner is the natural person(s) who, whether acting alone or together, or through one or more judicial person, has ownership of entitlement to more than fifteen percent of capital or profits of the partnership;
3. In case of an unincorporated association or body of Individuals, the beneficial owner is the natural person(s), who, whether acting alone or together, or through one or more judicial person, has ownership of or entitlement to more than fifteen percent of the property or the capital or profits of such association or body of individuals;
4. Where no natural person is identified under (1) or (2) or (3) above, the beneficial owner is the relevant natural person who holds the position of senior managing official;
5. In case of a trust, the identification of beneficial owner(s) shall include identification of the author of the trust, the trustee, the beneficiaries with fifteen percent or more interest in the trust and any other natural person exercising ultimate effective control over the trust through a chain of control or ownership.
- V. An Agent is a person to do any act for another, or to represent another in dealings with third person.
- VI. The successful bidder shall not be allowed to sub-contract works to any contractor from a country which shares a land border with India unless such contractor is registered with the Competent Authority.
- VII. All bidders need to submit a declaration-cum-certificate (along with evidence) in this regard as per "**Annexure Q**". Failure to submit such valid declaration-cum-Certificate will make the bid liable for rejection."

ANNEXURE "Q"

Declaration-Cum- Certificate on the Letter Head of Bidder Regarding Restrictions on Procurement From Bidders From A Country Or Countries, On Grounds Of Defence In India, Or Matters Directly Related Thereto, Including National Security.

Restrictions under Rule 144 (XI) of General Financial Rules 2017 of Ministry of Finance, India order no. F. No 6/18/2019/PPD dated 23rd July 2020

I/We have read the clause regarding restrictions on procurement from a bidder of a country which shares a land border with India;

I/We, the bidder (Specify full name -----) certify that we are NOT from such a country OR, if from such a country, has been registered with Competent Authority.

I/We hereby certify that we fulfil all requirements in this regard and is eligible to be considered.

(Signature of Authorised Signatory along with Seal)

Name of authorised signatory:

Designation of Authorised signatory:

List of Evidences enclosed:

1. Copy of certificate of valid registration with the Competent Authority (Score out if not applicable)
2.
3.
4.

Date:

Place:

SPECIAL CONDITION OF CONTRACT

1. The Technical Bid should contain the following: -

- a. Technical Bid duly signed and sealed on each page.
- b. Banker's Cheque/Demand Draft of Earnest Money deposit.

The technical bid not accompanied by abovementioned any one or more documents shall be treated as non-responsive bid and the same shall be summarily disqualified. No correspondence shall be entertained in this regard.

2. **Taxes, duties, levies etc.:**

The rates quoted shall be inclusive of all taxes, duties, levies, royalties, fees, cess or charges in respect of the works but excluding GST which shall be payable over and above the approved rates as per actual. Variation of taxes, duties, fees, levies etc. (excluding GST) if any, till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account in any case will be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under as statutory law during the currency of contract the same shall be borne by the Contractor/ Vendor. **GST will however be paid by the CENTRAL BANK OF INDIA as applicable.**

3. The Contractor/ Vendor shall study the schedule of items, technical specifications, drawings, design, etc. for its sufficiency considering all the regulations of local authorities and supply company and code of standard as applicable at the time of submitting the tender and shall bring to the notice of bank, addition or deletion, if any, in writing before due date of submission of tender.

4. **Acceptance of tender**

The CENTRAL BANK OF INDIA shall have the right to reject any or all tenders without assigning any reason. They are not to bind to accept the lowest or any tender and the tenderer or tenderers shall have no right to question the acts of the CENTRAL BANK OF INDIA. However adequate transparency would be maintained by the CENTRAL BANK OF INDIA.

5. **Dimensions and levels**

All dimensions and levels shown on the drawings shall be verified by the contractor and the site and he will be held responsible for the accuracy and maintenance of. All the dimensions and the levels. Figured dimensions are in all cases to be accepted and dimension shall be scaled. Large scale details shall take precedence over small scale drawings. In case of discrepancy the contractor shall ask for clarification from the Architect / consultant before proceeding with the work.

6. **Notice of operation**

The contractor shall not carry out any important operation without the Consent in with from the Architect / consultant:

7. Construction records

The contractor shall keep and provide to the Architect / consultant full and accurate records of the dimensions and positions of all new work and any other information necessary to prepare complete drawings recording details of the work as construction.

8. Safety of adjacent structures and trees

The contractor shall provide and erect to the approval of the Architect / consultant supports as may be required to protect effectively all structures and protective give to trees, which may be endangered by the execution of the works or otherwise such permanent measures as may be required by the Architect to protect the tree structures.

9. Temporary works

Before any temporary works are commenced the contractor shall submit at least in advance to the architect / consultant for approval complete drawings of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the architect / consultant may require in accordance with the conditions of contract at his own cost the contractor shall be solely responsible for the stability and safety of all temporary works and unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.

10. Water power and other facilities

- a) The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his own arrangements for the supply of good quality water suitable for the construction and good quality drinking water for their workers If necessary the contractor has to sink a tube well / open well and bring water by means of tankers at his own cost for the purpose The CENTRAL BANK OF INDIA will not be liable to pay any charges in connection with the above
- b) The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges
- c) The contractors for other trades directly appointed by the CENTRAL BANK OF INDIA shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for Construction purposes shall be borne by the contactor and charges payable for permanent

connections, if any, shall be initially paid by the contractor and the CENTRAL BANK OF INDIA will reimburse the amount on production of receipts

- d) The CENTRAL BANK OF INDIA as well as the Architect / consultant shall give all possible assistance to the Contractor's to obtain the requisite Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor

11. Facilities for contractor's employees

The contractor shall make his own arrangement for the housing and welfare of his staff and workmen including adequate drinking water facilities. The contractor shall also make the arrangements at his own cost for transport where necessary for his staff and workmen to and from site of work at his own cost.

12. Lighting of works

The contractor shall at all times provide adequate and approved lighting as required for the proper execution and supervision and inspection of work.

13. Firefighting arrangements

i) The contractor shall provide suitable arrangement for firefighting at his own cost. This purpose he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are to be always kept filled with sand and some with water this equipment shall be provided at suitable prominent and easily accessible place and shall be properly maintained.

ii) Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and, to the approval of the relevant authorities. The contractor makes the following arrangements at his own cost but not limited the following:

- a) Proper handling, storage and disposal of combustible materials and waste.
- b) Work operations which can create fire hazards.
- c) Access for fire-fighting equipment.
- d) Type, number and location of containers for the removal of surplus materials and rubbish.
- e) Type, size, number and location of fire extinguishers or other fire fighting equipment.
- f) General house keeping

14. Site order book

A site order book shall be maintained at site for the purpose of quick communication between the Architect / Consultant. Any communication relating to the work may be conveyed through records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the contractor and shall be made available to the architect / consultant as and when demanded. Any instruction which the architect / consultant may like to issue to the contractor or the contractor may like to bring to the architect / consultant two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

15. Temporary fencing/ barricading

The contractor shall provide and maintain a suitable temporary fencing / barricading and gates at his cost to adequately enclose all boundaries of the site for the protection of the public and for the proper execution and security of the work and in accordance with the requirement of the architect / consultant and regulations of local authorities. These shall be altered, relocated and adopted from time to time as necessary and removed on completion of the work.

16. Site meetings

Site meetings will be held to review the progress and quality evaluation. The contractor shall depute a senior representative along with the site representative and other staff of approved sub-contractors and suppliers as required to the site meetings and ensure all follow up actions. Any additional review meetings shall be held if required by the architect/ consultant. -

17. Disposal of refuse

The contractor shall cart away all debris, refuse etc. arising from the work from the site and deposit the same as directed by the architect / consultant at his own cost. It is the responsibility of the contractor to obtain from the local authorities concerned to the effect that all rubbish arising out of contractor's activities at the construction site or any other off-site activities borrow pits has been properly disposed-off.

18. Contractor to verify site measurement

The contractor shall check and verify all site measurements whenever requested other specialists contractors or other sub-contractors to enable them to prepare the own shop drawing and pass on the information with sufficient promptness as will in any way delay the works.

19. Displaying the name of the work

The contractor shall put up a name board of suitable size as directed by the architect/consultant indicating therein the name of the project and other details as given by the architect/consultant at his own cost and remove the same on completion of work.

20. As built drawings

- i. For the drawings issued to the contractor by the Architect / Consultant. The architect Consultant will issue two sets of drawings to the Contractor for the items for some changes have been made. From the approved drawings as instructed by the CENTRAL BANK OF INDIA / Architect / Consultant. The contractor will make the changes made on these copies and return these copies to the architect / Consultant for their approval. In cases revision is required or the corrections are not properly marked the architect / Consultant will point out the discrepancies to the contractor. The contractor will have to incorporated these corrections and / or attend to discrepancies either on copies as directed by the architect / consultant and resubmit to him for approval. The architect / consultant will return one copy duly approved by him.

- ii. For the drawings prepared by the contractor

The contractor will modify the drawing prepared by him wherever the changes made by the CENTRAL BANK OF INDIA / architect / consultant. And submit two copies of such modified drawings to the architect/ consultant for approval. The architect / consultant will return one copy of the approved drawing to the contractor.

21. Approved make

The contractor shall provide all materials from the list of approved makes at his own cost and also appoint the specialized agency for the waterproofing anti-termite, aluminum doors and windows and any other item as specified in the tender. The architect/consultant may approve any make / agency within the approved list as given in the tender after inspection of the sample/mock up.

22. Procurement of materials

The contractor shall make his own arrangements to procure all the required materials for the work. All wastages and losses in weight shall be to the contractors account

23. Excise duty, taxes, levies etc.;

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees, cess or charges in respect of the works including but not limited to sales tax, tax on works contract excise duty, and octroi, payable in respect of materials, equipment plant and other things required for the contact. All of the aforesaid taxes, duties, levies, fees and charges shall be to the contractor's account and the CENTRAL BANK OF INDIA shall not be required to pay any additional or extra amount on this

account. Variation of taxes, duties, fees, levies etc. if any, till completion of work shall be deemed to be included in the quoted rates and no extra amount on this account. Variation of taxes, duties, fees, levies etc. if any, till completion of work shall be deemed to be included in the quoted rates and no extra claim on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under as statutory law during the currency of contract the same shall be borne by the contractor.

24. Photographs:

- The Contractor shall at his own expense supply to the Architects with duplicate hard copies of large photographs not less than 25 cm. x 20 cm. (10" x 8") of the works, taken from two approved portions of each building, at intervals of not more than one months during the progress of the work or at every important stage of construction.
- In addition to above, the contractor shall be bound to submit adequate no. of site photographs along with each Running Bill for the project clearing showing major progress of work measured and claimed therein failing which the Architect/ CENTRAL BANK OF INDIA may consider returning the Bill to the contractor and no claim for delay on this account will be entertained.

ARTICLES OF AGREEMENT

(On non-judicial Stamp Paper of Rs. 500/- or as per latest Govt. Rules)

ARTICLES OF AGREEMENT made the _____ date of _____ between Central BANK OF INDIA, having its Regional office at Nashik hereinafter called "the Client" of the One Part and M/S.

WHEREAS the CENTRAL BANK OF INDIA is desirous of Proposed Construction Works Compound Wall Of Rural Self Employment Training Institute (Rseti) Building At Nagaon, Dhule, Maharashtra. and has caused specifications describing the work to be done to be prepared by CENTRAL BANK OF INDIA.

AND WHEREAS the said Drawings numbered _____ to _____ inclusive, the Specifications and the Schedule of Quantities have been signed by or on behalf of the parties hereto.

AND WHEREAS the Contractor has agreed to execute upon and subject to the Conditions set forth herein and to the Conditions set forth herein in the Special Conditions and in the Schedule of Quantities and Conditions of Contract (all of which are collectively hereinafter referred to as "the said conditions") the works shown upon the said Drawings and / or described in the said Specifications and included in the Schedule of Quantities at the respective rates therein set forth amounting to the sum as therein arrived at our such other sum as shall become payable there under (hereinafter referred to as "the said Contract Amount.)

NOW IT IS HEREBY AGREED AS FOLLOWS:

- 1) In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Conditions execute and complete the work shown upon the said Drawings and described in the said Specifications and the priced Schedule of Quantities.
- 2) The Employer shall pay to the Contractor the said Contract Amount, or such other sum as shall become payable, at the times and in the manner specified in the said Conditions.
- 3) The term "The Architects" in the said Conditions shall mean **M/s Sandeep Govalkar Design Associates**, or in the event of their ceasing to be the Architects for the purpose of this Contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Employer, not being a person to whom the Contractor shall object for reasons considered to be sufficient by the Employer, PROVIDED ALWAYS that no person or persons subsequently appointed to be Architects under this Contract shall be entitled to

- 4) Disregard or overrule any previous decisions or approval or direction given or expressed in writing by the outgoing Architects for the time being.
- 5) The said Conditions and Appendix thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by submit themselves to the said Conditions and perform the Agreements on their part respectively in the said Conditions contained.
- 6) The Plans, Agreements and Documents mentioned herein shall form the basis of this Contract.
- 7) This Contract is neither a fixed lump-sum contract nor a piece work contract but a contract to carry out the work in respect of the entire building complex to be paid for according to actual measured quantities at the rates contained in the Schedule of Quantities and Rates or as provided in the said Conditions.
- 8) The Contractor shall afford every reasonable facility for the carrying out of all works relating to civil works, installation of lifts, Telephone, electrical installations, fittings air-conditioning and other ancillary works in the manner laid down in the said Conditions, and shall make good any damages done to walls, floors, etc. after the completion of his work.
- 9) The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract.
- 10) Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work soon after the Site is handed over to him or from 14th day after the date of issue of formal work order as provided for in the said Conditions whichever is later and to complete the entire work within **90 days** subject to nevertheless the provisions for extension of time.
- 11) All payments by the CENTRAL BANK OF INDIA under this Contract will be made only at Nashik.
- 12) All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Nashik and only the Courts in Nashik shall have jurisdiction to determine the same.
- 13) That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

IN WITNESS WHEREOF THE EMPLOYER and the Contractor have set their respective hands to these presents and two duplicates hereof the day and year first hereinabove written.

SIGNATURE CLAUSE

SIGNED AND DELIVERED by the

_____ By the
(Employer)

hand of Shri _____

(Name and Designation)

(Signature of Employer)

In the presence of :

1) Shri / Smt. _____

(Signature of Witness)

Address _____

(Witness)

SIGNED AND DELIVERED by the

_____ by the
(Contractor)

(Signature of Contractors)

in the presence of :

Shri / Smt. _____

(Signature of Witness)

Address _____

(Witness)

**FORMAT OF GUARANTEE TO BE EXECUTED BY THE FIRM/ CONTRACTOR IN
RESPECT OF THE WORK OF PRE-CONSTRUCTION ANTI-TERMITE TREATMENT FOR
FOUNDATION OF VERTICAL POSTS.**

(On non-judicial Stamp Paper of Rs. 500/- or as per latest Govt. Rules)

The agreement made this _____
Day of _____ Two Thousand _____ between The Regional Manager, Central Bank of India, Nashik Regional Office, Nashik of one part
and _____
(Name of the Firm/ Contractor (hereinafter called the Guarantor) of the other part.

WHEREAS THIS AGREEMENT is supplementary to the Contract (hereinafter called the Contract dated _____
made between the Employer of the one part and the Guarantor of the part) whereby the Firm/Contractor interlaid undertook to render the building/ structure completely free of any infestation of termites, and whereas the Guarantors agreed to give guarantee to the effect that the said building/ structure shall remain free from infestation for the period of 10 years from the date of Completion of pre-construction anti-termite treatment as per IS Code.

Now the Guarantor hereby agrees to make good all defects and render the building/ structure free from any infestation of termites, during this period of guarantee and to the satisfaction of the employer. The Guarantor also agrees to take up such rectification work at his own cost, and within one week from the date of issue of notice from the Employer, calling upon him to rectify the defects.

The decision of the Employer as to the cost by the Guarantor will be final and binding in the case, the Guarantor fails to commence the work as per the above notice and the work is got done through the other Contractor, that if the Guarantor fails to execute the preconstruction anti-termite treatment or commits breach thereunder then the Guarantor will indemnify the principal and his successors against all loss, damaged caused, expenses otherwise which may be incurred by him by any reason of any default on the part of the Guarantor in performance and observance of this agreement, as to the amount of loss and /or damage and / or cost incurred by the Employer, the decision of the Employer will be final and binding.

In witness where of these presents have executed by the obligator and by _____ and
for of behalf of the Employer on the day, month and year first above written, Signed
and delivered by Central Bank of India, by _____
In the presence of _____
Signed and delivered by the hands of _____
Contractor _____
In presence of _____

SAFETY CODE

1. First aid appliances including adequate supply of sterilized dressing and cotton wool shall be kept in a readily accessible place.
2. An injured person shall be taken to a public hospital without loss of time, in cases when the injury necessitates hospitalization.
3. Suitable and strong scaffolds should be provided for workmen for all works that cannot safely be done from the ground.
4. No portable single ladder shall be over 8 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent running shall not be more than 30 cm. When a ladder is used an extra mazdoor shall be engaged for holding ladder.
5. The excavated material shall not be placed within 1.5 meters of the edge of the trench half of the depth of trench whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.
6. Every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be one meter.
7. No floor, roof or other part of the structure shall be so overloaded with debris or material as to render it unsafe.
8. Workers employed on mixing and handling material such as asphalt, cement, mortar, concrete and lime shall be provided with protective footwear and rubber hand gloves.
9. Those engaged in welding works shall be provided with welders' protective eye shield and gloves.
10. (i) No paint containing lead or lead products shall be used except in the form of paste readymade paint.
(ii) Suitable facemasks should be supplied for use by the workers when the paint applied in the form of spray or surface having lead paint dry rubbed and scrapped.
11. Overalls shall be supplied by the contractor to the painters and adequate facilities shall be provided to enable the working painters to wash during cessation of work.
12. Hoisting machines and tackle used in the works including their attachments anchor and supports shall be in perfect condition.
13. The ropes used in hoisting or lowering material or as a means of suspension shall be durable quality and adequate strength and free from defects.

APPENDIX HEREINBEFORE REFERRED TO

Name of the organization Offering Contract: The Regional Manager,
Central Bank of India, Nashik Regional Office Plot No.P-63, MIDC
Satpur Nashik- 422007.

- 1) Consultants : M/s. Sandeep Govalkar Design Associates
Architects & Interior Designers.
A3/301-302, SHIVCHHAYA, GILBERT
HILL ROAD, ANDHERI (WEST), MUMBAI
- 400 058 INDIA. TLF: 91- 8828121133
MOBILE: 98211 73563/ 9969699169
- 2) Site Address : NAGAON, DHULE,, Maharashtra
- 3) Scope of Work : Civil Construction , Interior & Related Allied
Works
- 4) Name of the Contractor : _____

- 5) Address of the Contractor : _____

- 6) Period of Completion : 36 days from the date of Commencement
- 7) Earnest Money Deposit : **Rs.40,000/-**
(Rupees forty thousand only) by means of
Demand Draft / Pay Order (Valid for a period of
90 Days from the last date of submission of the
tender) from any scheduled Commercial Bank
drawn in favour of CENTRAL BANK OF INDIA
and payable in Nashik.
- 8) Retention Money : As per clause no. 11(a) of general
Conditions
- 9) Defects Liability Period : Twelve Months from the date of
Virtual Completion.
- 10) Liquidated damages : 0.5% of the Contract amount shown

in the tender per week subject to max. 5% of the contract value or actual final bill value.

- | | | | |
|-----|--|---|--|
| 11) | Value of Interim Bill (Min.) | : | Rs. 10.00 Lakhs. |
| 12) | Date of Commencement | : | 7 days from the date of acceptance letter is issued to the Contractor/ or the day on which the Contractor is instructed to take possession of the site whichever is earlier. |
| 13) | Period of Final Measurement | : | 3 (Three) Months from the date of Virtual Completion. |
| 14) | Initial Security Deposit | : | 2% of the Accepted Value of the Tender. (Clause No. 22) |
| 15) | Total Security Deposit | : | As per clause No. 2 of GCC |
| 16) | Refund of initial Security Deposit
Comprising of EMD and ISD. | : | 50% of the Security Deposit shall be refunded to the Contractor on completion of the work and balance refunded only after the Defect Liability Period is over. |
| 17) | Period for Honoring Certificate | : | 1. One Month for R.A. Bills
2. The final bill will be submitted by the Contractor within one month of the date fixed for completion work and the Bill shall be Certified within 3 months from the date of receipt of final bill provided the bills are submitted with all pre-requisite documents/test reports etc. prescribed in the tender. |

 Signature of Tenderer.

Date:

INDEX PROFORMAS OF VARIOUS TESTS

TABLE NO.	DESCRIPTION	PAGE NO.
1.	Record of Cement/Received/Used/Balance.	
2.	Proforma of Paint/Lead/CICO Register.	
3.	Bank for Reinforcement Bars Received.	
4.	Proforma for Register of Material of Site Account.	
5.	Proforma for Account of Secured Advance Register.	
6.	Proforma for Bulkage Test of Sand Register.	
7.	Proforma for Silt Test Register.	
8.	Proforma for Sieve Analysis of Fine Aggregate Register.	
9.	Proforma for Sieve Analysis of Coarse Aggregate Register.	
10.	Proforma for Slump Test Register.	
11.	Proforma of Cube Test Register.	
12.	Proforma for Hindrance to Work.	
13.	Proforma for Running A/c. Bill.	
14.	Account of Secured Advance if Admissible on	
15.	Materials Held at Site by the Contractors	
16.	Memorandum for Payment.	

TABLE-I

RECORD OF CEMENT RECEIVED / USED / BALANCE

S. No.	Cement in stock Bags	Cement received (Bags)	Total Cement received (Bags)	Source4 from which received	Description of work where cement is used	Number of cement bags consumed	Balance in stock	Signature of Contractors Bank / Engineer
1	2	3	4	5	6	7	8	9

TABLE-II

RECORD OF PAINT / LEAD / CICO REGISTER

Name of work :

Name of the Contractor :

Agreement No. :

Date of Receipt	Source Receipt with Ref. To S.O./Indent	Qty. Received	Progressive Total	Item of work for which issued with approx qty. work done in case of paint only	Date of issues	Quantity issued	Qty. returned at the end of the day	Total issued	Delay Balance at hand	Contractors initials	Site Engineers initials	Signature of Banks/ Architect
1	2	3	4	5	6	7	8	9	10	11	12	13

Register for bitumen should be maintained. The format will be similar to that for cement.

TABLE-III

RECORD FOR REINFORCEMENT BARS RECEIVED

Truck No.	Challan No.	Name of Supplier	Binding Wire	6 mm dia	8 mm dia	12 mm dia	16 mm dia	20 mm dia	25 mm dia	Total Received
1	2	3	4	5	6	7	8	9	10	11

Number of diameters given is only illustrative. Open more columns for other diameters wherever needed.

TABLE-IV

PROFORMA FOR REGISTER OF MATERIAL AT SITE ACCOUNT

Name of Work : Name of Article :
 Name of Contractor: Estimated Requirement :
 Agreement No. : Issue Rate :

Date of Receipt	Received from/Issued to (with Ret. to So/Indent)	Receipt	Issue	Balance	Initials of Contractor	Initial of Bank's/Architect's representative	Remark
1	2	3	4	5	6	7	8

TABLE-V

PROFORMA FOR REGISTER OF MATERIAL AT SITE ACCOUNT

Name of Work :

Name of Contractor:

Agreement No. :

Descript ion of Material	Qty. outstanding from previous Bill	Deduct Qty. utilised in works measured since previous bill	Qty. outstanding & Qty. brought to site since previous bill	Signature of Site Engineer	Signature of Contracto r	Initial of Bank's/ Architect's representative	Remark
1	2	3	4	5	6	7	8

TABLE-VI

PROFORMA FOR BULKAGE TEST OF SAND REGISTER

Sr. .No.	Date of Test	Volume of dust sand in Cylinder inundated & stirred	Volume inundated Sand in Cylinder	Percentage of Bulkage	Signature of Site Engineer	Signature of Contractor	Initial of Bank's Architect's representative (Periodical)
1	2	3	4	5	6	7	8

TABLE-VII

PROFORMA OF SILT TEST REGISTER

Sr. No .	Date of Test	Height of Sand in Cylinder inundated & stirred	Height of Silt	Max percentage of silt as specified	Percentage of silt obtained	Signature of Site Engineer	Signature of Contractor	Initial of Bank's / Representative (Periodical)
1	2	3	4	5	6	7	8	9

TABLE-VIII

PROFORMA SIEVE ANALYSIS OF FINE AGGREGATE REGISTER

Sr. No	Date of Test	Wt. of Material to be tested	Sieve as per I.S. designation	Wt. of Sand retained in sieve	%a retained in each sieve successively	Cumulative % retained in each sieve	F.M.	Signature of Site Engineer	Signature of Contractor	Signature of Banks/ Architect's representative & Remarks (Periodical)

TABLE-IX

PROFORMA OF SIEVE ANALYSIS OF COARSE AGGREGATE REGISTER

S. No.	Date of Testing	Wt. of Material to be tested	Nominal size of Aggregate	I.S. Sieve designation	Standard passing for graded aggregate. of nominal size	Test Result	Obtained passing	Signature of Site Engineer	Signature of Contractor	Signature of Banks/ Architect's representative & Remarks (Periodical)
1	2	3	4	5	6	7	8	9	10	11

TABLE-X

PROFORMA FOR HINDRANCE TO WORK

Name of Work : Date of Start of work :

Name of Contractor : Period of Completion :

Agreement No. : Dt. of Completion of work :

S.No.	Nature of Hindrance	Date of Occurrence of Hindrance	Date of which Hindrance was removed	Period of which Hindrance existed	Signature of Site Engineer	Signature of Bank / Architects Representative
1	2	3	4	5	6	7

TABLE - XI

ACCOUNT OF SECURED ADVANCE, IF ADMISSIBLE ON
MATERIALS HELD AT SITE BY THE CONTRACTOR

S.No.	Item	Quantity	Unit	Amount	Remarks
1	2	3	4	5	6

Total value of materials at Site.

Secured Advance @ ----- of above value -

B

CERTIFIED:

- (i) That the materials mentioned above have actually been brought by the Contractor to the site of the work and on advance on any quantity of any of this item is outstanding on their security.
- (ii) That the materials (are of imperishable nature) and are all required by the Contractor for use in the work in connection with the items for which rates of finished work have been agreed upon.

Dated Signature of
 Site Engineer
 Preparing the bill
 Rank -----

Date signature of
 Banks Architects----- (Name
 of the Architects)

 Dated Signature of the
 Contractor TABLE -XV



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MEMORANDUM FOR PAYMENT

R/A BILL NO.

1. Total value of work done since previous bill (A) Rs. -----
2. Total amount of secured advance due since Previous Bill (B) Rs. -----
3. Total amount due since Previous Bill (C) (A+B) Rs. -----
4. PVA on account of declaration in price of Steel, Cement and other materials and labour as detailed in separate statements enclosed. Rs. -----
5. Total amount due to the Contractor Rs. -----
-

OBJECTIONS:

- i) Secured Advance paid in the previous R/A Rs. -----
- ii) Retention money on value of works as per accepted tenders upto date amount Rs. -----
Less already recovered Rs. -----
Balance to be recovered Rs. -----
- iii) Mobilization Advance, if any
 - (a) Outstanding amount (principal + interest) as on date Rs. -----
-
 - (b) To be recovered in this bill Rs. -----
- iv. Any other Departmental materials cost to be recovered as per contract, if any Rs. -----
- iv. Any other Departmental service charges to be recovered if any, as per contract (water, power etc.) enclose statement. Rs. -----



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Total Deduction as per contract (F) Rs. -----

Adjustments, if any ----- Amount Rs. -----
less received by Contractor in -----
R/A Bill (as per statement of
Contractor)

P.V.A. Rs. -----

Total amount payable as per contract Rs. -----
(E+F+G)

(Rupees ----- in
words)

The bill amount to Rs. ----- (both figures and words) has been
scrutinized by us after due checking of the measurements of work as
required and is recommended for payment.

Date: -----

Signature of Architect
with Seal

The bill amount to Rs. ----- certified by Consultants has been
scrutinized by me after due test checking of measurements of works as
required and is recommended for payment for an amount of
Rs.

Date : -----

Signature of Owners
Engineer

STATUTORY DEDUCTION:

i)	Total Amount due (E)	Rs. -----
ii)	Less I.T. Payable	Rs. -----
iii)	Less S.T. Payable	Rs. -----
	Net Payable	Rs. -----

This figures given in the Memorandum for payable has been
verified and bill passed for payment -----
----- (in words and figures)

Date: -----

Signature of the AGM (P&E).

NB. 1) The contractor should obtain prior approval from Employer / Consultants before placing order for any specific materials. Employer may / delete any of the makes or brands out of the above list.

BIS.

2). All materials should conform to relevant standards and codes of

3) Materials with I.S.I. mark shall be used duly approved by the CENTRAL BANK OF INDIA Engineer / Architect.

Note: - If any material is found to be not up to the mark, the contractor will have to produce original bills/certificate from the manufacturer or his authorized Distributor for authenticity and genuineness of the material for consideration and as per make approved by the CENTRAL BANK OF INDIA. The same will not be considered for payment.

MODE OF MEASUREMENT

1. Unless otherwise stated, all pipes shall be measured net, length as laid and measured overall fittings, such as bends, junctions, etc., and given in running meters. The length shall be taken along the center line of the pipes and fittings.
2. False Ceiling shall be measured in Plan area (length x width) only; irrespective of design in vertical patta, coves, dome etc.
3. Storage/ Almirah/ Wardrobes etc shall be measured in elevation area (width x height) only; irrespective of depth from 450 mm to 600 mm.
4. Length of fittings viz, taps, valves, traps etc., which are paid under appropriate items shall not be re-measured under linear measurements as enumerated above.
5. Soil waste and vent pipes shall be measured along the center line of the stack including the connecting bends/tees to W.C. Pan, Nahani trap, etc. and shall be paid as enumerated above.
6. W.C. Pans, Lavatory basins, Sinks, Drain boards, Urinals, Mirrors, Glass shelf Toilet paper Holder, shall be measured by number and shall include all accessories as enumerated in detail specification under each item.
7. Unless otherwise specified, all types of taps, valves, etc., shall be measured by number and paid separately.
8. Manholes, inspection Chambers, Gully traps, etc. shall be constructed according to detail specification and measured by number and paid separately. The depth of Manhole shall mean the vertical distance from the top of the Manhole cover to the outgoing invert of the main drain channel.
9. Water meter shall include Y strainer and other appurtenances required by the local bodies and shall include brick masonry chamber, etc., as per detailed specifications and item shall be measured by number and paid for accordingly or as per schedule of quantity.

SECTION – A: MATERIALS

- 1) Material shall be of best approved quality obtaining and they shall comply with the respective Indian Standard Specification.
- 2) Samples of all materials shall be got approved before placing order and the approved sample shall be deposited with the Architect.
- 3) In case of non-availability of materials in metric sizes the nearest size in FPS units shall be provided with prior approval of the Architects for which neither extra will be paid nor shall any rebates be recovered.
- 4) If directed, materials shall be tested in any approved Testing Laboratory and the test certificates in original shall be testing including charges for repeated tests, if ordered, shall be borne by the Contractor.
- 5) It shall be obligatory for the Contractor to furnish certificate, if deemed by the Architects, from manufacturer or the material supplier that the work has been carried out by using their material and as per their recommendations.
- 6) All materials supplied by the Employer / any other Specialist Firms shall be properly stored and the Contractor shall be responsible for its safe custody until they are required on the works and till the completion of the work.
- 7) Unless otherwise shown on the Drawings or mentioned in the "Schedule of Quantities" or special specification, the quality of materials, workmanship, dimensions, etc., shall be as specified as hereunder.
- 8) All equipment and facilities for carrying out field tests on materials shall be provided by the Contractor without any extra cost.

a) Cement:

Cement shall comply in every respect with the requirements of the latest publications of IS: 269 and unless otherwise specified ordinary Portland cement shall be used.

The weight of ordinary Portland Cement shall be taken as 1440 kg. per cu.m. (90 lbs. per c.ft.). Cement shall be measured by weight and in whole bags, and each undisturbed and sealed 50 kg. bag being considered equivalent to 35 liters (1.2 c.ft.) in volume care should be taken to see that each bag contains full quantity of cement. When part bag is required cement shall be taken by weight or measured in measuring boxes.

No other make of cement but that approved by the Architects will be allowed on works and the source of supply will not be changed without approval of Architect in writing. Test certificates to show that cement is fully complying the specifications shall be submitted to the Architects and

notwithstanding this, the Architect may at his discretion, order that the cement brought on site and which he may consider damaged or of doubtful quality for any reason whatsoever, shall be re-tested in an

approved testing laboratory and fresh certificates of its soundness shall be produced.

Cement ordered for re-testing shall not be used for any work pending results of re-test.

Cement shall be stored in weather-proof shed with raised wooden plank flooring to prevent deterioration by dampness or intrusion of foreign matter. It shall be stored in such a way as to allow the removal and use of cement in chronological order of receipt i.e., first received being used first used. Cement deteriorated and or clotted shall not be used on the work but shall be removed at once from the site. However, allowing use of warehouse set cement shall be determined by the Architect.

- b) **Lime:** Lime shall comply in every respect with the requirements of IS: 712 and shall be made from approved line stone or kankar and properly burnt. It shall be free from excess of unburnt kankars or lime stone ashes or other extraneous materials and shall be stored in weather-proof sheds. Lime which has damaged by rain, moisture, or air slacking shall not be used but shall be removed from the site of work forthwith. Lime shall be slacked with fresh water and screened through appropriate screens and stored and used within 14 days provided it is protected from drying out.

Field tests according to IS: 1624 shall be carried out from time to time to determine the quality of lime.

- c) **River Sand:**

River sand shall confirm to IS: 383 and relevant portion of IS: 515. It shall pass through a I.S. sieve 4.75 mm. (3/16 B.S.) test sieve, leaving a residue not more than 5%. It shall be from natural source i.e. only river or crushed stone screenings, if allowed, chemically clean, sharp, hard durable, well graded and free from dust, pebbles, clay, shale, salt, organic matter, loam, mica or other deleterious matter. The sum percentages of all deleterious substances to acceptable limits. River sand shall not contain any trace of salt and it shall be tested and river sand containing any trace of salt shall be rejected.

The fine aggregate i.e. river sand for concrete shall be graded within limits as specified in IS: 383 and the fineness Modules may range between 2.60 to 3.20.

The fine aggregate shall be stacked carefully on a clean hard dry surface so that it will not get mixed up with deleterious foreign materials. If such a surface is not available a platform of planks or corrugated iron sheets or brick floor or a thin layer of lean concrete shall be prepared.

- d) **Fine & Coarse Aggregate:**

Shall consist of crushed or broken stone 95% of which shall be retained on 4.75 mm. IS tests sieve. It shall be obtained on crushing Granite, Quartzite, Trap, Basalt, or similar approved stones from approved quarry and shall confirm to IS:383 and IS 515. Fine & Coarse aggregate shall be chemically inert when mixed with cement and shall be cubical in shape and be free soft, friable, thin, porous, laminated or flaky pieces. It shall be free from dust and any other foreign matter.

Gravel / Shingle of desired grading may be permitted as a substitute in part or full in plain cement concrete if the Architect is otherwise satisfied about the quality of aggregate. For all the R.C.C. works the size of coarse aggregate shall be 20 to 25 mm. and fine aggregate shall be 10 to 15 mm.

e) **Reinforcement:**

Reinforcement shall be of mild steel tested quality confirming to I.S.: 432-1966 and any other I.S. applicable or deformed bar confirming to IS:1786 and Is:1139 or hard drawn Fe 415 (Tor Steel) steel wire fabric confirming to IS:1566;1967.

All finished bars shall be free from cracks, surface flaws, laminations, jagged and imperfect edges.

f) **Bricks :**

Bricks shall generally comply with IS:1077 except in size which shall be classified as 1st and 2nd class. 1st class bricks shall be the best quality locally available table moulded, well burnt but not over burnt, have plain rectangular faces with parallel sides and sharp right-angled edges, have a fine compact and uniform texture. The bricks shall be free from cracks, chips, flaws, stones or subsequent to soaking in water. It shall emit a clear ringing sound on being struck and shall not absorb water more than 20% by weight. Common building bricks shall have a compressive strength of 35 kg. / sqm unless otherwise specified for first class bricks.

- g) **Water** for mixing cement / lime / surkhi mortar or concrete shall not be salty or brackish and shall be clean, reasonably clear and free from objectionable quantities of silt and traces of oil, acid and injurious alkali, salts, organic matter and other deleterious materials which will either weaken the mortar or concrete or cause efflorescence or attack the steel in reinforced cement concrete. Water shall be obtained from sources approved by the Architect. Potable water is generally considered satisfactory for mixing and curing concrete, mortar masonry, etc., where water other than main source is used this shall be tested in an approved testing laboratory to establish its suitability. All charges connected therewith shall be borne by the Contractor.

h) **Paints :**

Lime for lime wash, dry distemper, oil bound distemper cement primer, oil paint, enamel paint, flat oil paint, plastic emulsion paint, anti-corrosive primer, red lead, water-proof cement paint and exterior grade Acrylic Emulsion paint, cement paint, sand-tex matt shall be from an approved manufacturer and shall conform to the latest Indian Standard for various paints. Ready mixed paints as received from the manufacturer without any admixture shall be used, except for addition of thinner, if recommended by the manufacturer.

i) **Mortar :**

Lime Surkhi Mortar : Lime and surkhi shall conform to the specifications. It shall be composed of approved lime and surkhi in proportion of 1 lime to 2 surkhi mixed thoroughly. The ingredients shall be accurately gauged by measure and shall be well and evenly mixed together on a platform and water added to make it homogenous. When large quantities are required the mortar shall be mixed in a mechanical grinder.

Cement Mortar :

Cement mortar shall be of proportions specified for each type of work in the schedule. It shall be composed of Portland Cement and sand. The ingredients shall be accurately gauged by measure and shall well and evenly mixed together in a mechanical pan mixer, care being taken not to add more water than is required. No mortar that has begun to set shall be used. River sand shall be used unless otherwise specified.

If hand mixing is allowed, then it shall be done on pucca water-proof platform. The gauged materials shall be put on the platform and mixed dry. Water will then be added and the whole mixed again until it is homogenous and of uniform colour. Not more than one bag of cement shall be mixed at one time and which can be consumed within half an hour of its mixing.

Composite Lime, Cement, Sand Mortar :

The mortar shall be of proportions specified for each type of work in the schedule of quantities. It shall comprise of Portland cement, lime and sand. Lime shall be measured in gauge boxes similar to one used for measuring cement and sand to the proportion specified and sufficient water then added to it to form a thick slurry thus obtained shall then be added to dry cement and sand mixture and thoroughly mixed to make a workable homogenous mortar of uniform colour by adding more water if necessary. Mechanical mixers shall generally be used for mixing such mortars. If hand mixing is allowed it shall be done on pucca platform.

Note :



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In connections with the I.S. Code numbers indicated under Section, Specification, Section A – General

Refer to the following I.S. Code numbers and the year and or otherwise latest modified I.S. Code Number.

- | | | |
|-----------------------|---|------------------------------|
| 1) Cement | : | I.S. 269 – 1976 |
| 2) Lime | : | I.S. 712 – 1964 |
| | | I.S. 1624 – 1960 |
| 3) Fine – Aggregate | : | I.S. 383 – 1970 |
| 4) Coarse – Aggregate | : | I.S. 515 – 1970 |
| 5) Reinforcement | : | I.S. 432 – 1966 Fe 415 |
| | | I.S. 1786 – 1966 (Tor Steel) |
| | | I.S. 1139 – 1966 |
| 6) Bricks | : | I.S. 1077 – 1970 |

SECTION – B: MODE OF MEASUREMENTS

The method of measurement for various items in the tender shall be generally in accordance with the IS: 1200 subject to the items for which the mode of measurements is not given under or elsewhere in the tender.

1) Excavation :

- a) **Footings**: Area of excavation for footing shall be measured equal to the area of the lowest concrete as shown on the drawing. Depth shall be measured vertically from ground level to bottom of concrete course or dry rubble packing as the case may be.
- b) **Plinth Beams**: Depth of excavation for plinth beam shall be measured from ground level up to bottom of beam and width equal to width of the beam. If a leveling course is ordered, it shall be measured up to the bottom of the Leveling course.
- c) Where excavation is made in trenches, measurements for cutting shall be taken by means of taps and staff and the width of concrete or rubble packing as shown on the Drawing shall be considered as the width of excavation.
- d) Where excavation is made for leveling the site, levels shall be taken before start and after completion of work and total quantity of excavation computed from these levels in manner approved by the Architect.
- e) Where soil including soft rock and hard rock are mixed, hard rock after excavation shall be stacked separately. Measurement of the entire excavation shall be taken as indicated above. Excavations of hard rocks shall be measured from stacks of excavated hard rock and reduced by 40% for bulkage and void. The quantity so arrived at shall be paid for under hard rock. The difference between the quantity of entire excavation and quantity payable under hard rock shall be paid as soil including soft rock.

2) Earth Filling :

In open spaces Fillings shall be measured from cross sections of embankments, levels of which are recorded by means of levels before start of work and after completion of work. When it is not possible to measure filling from cross sections, it may be measured from loose stacks or lorry measurements with previous written permission from the Architect and 20% deduction shall be made from the measured quantity to arrive at the net quantity payable.

3) **Cement Concrete (Plain & Reinforcement):**

Cement concrete in R.C.C. and P.C.C. items shall be measured exclusive of reinforcement and plaster thickness but shall include necessary costs of shuttering, centering, hire charges of all equipment, curing, hacking and fair finish. Reinforcement and plaster shall be measured and paid separately.

Items line R.C.C. precast jalli, R.C.C. pipes and other such items which are normally manufactured in factories as well as those items which have been specifically mentioned in the Schedule of Quantities shall be measured inclusive of reinforcement.

No deductions will be made for openings up to 0.1 sq.mtr. and no extra labour for forming such openings or voids shall be paid.

Columns shall be measured from face to face of columns / beams and shall include haunches, if any. The depth of the beams (other than raft foundations beam) shall be measured from the top of the slab to the bottom of the beam.

In case of combined footings and raft foundations, the exposed, portion of the beam rib shall be measured as beam and remaining portion measured in footing / raft slab.

Slabs (other than in raft foundations) shall be measured in bays (clear of beams) with deductions for columns portions.

4) **Reinforcement:**

Shall be measured in lengths of bars as actually placed in position on standard weight basis; no allowance being made in the weight for rolling margin, Wastage and binding wire shall not be measured, authorized overlaps and spacers shall only be measured.

(Make: JSW / Kamdhenu / Shree Om/ Approved Equivalent)

Standard weight for steel reinforcement bars

Diameter of the steel bars in mm.	6	8	10	12	16	20	25	32
Weight of steel bars in kg per Rmt.	0.22	0.39	0.62	0.89	1.58	2.47	3.85	6.31

5) **Brick Work :**

Except walls of half-brick thickness or less, all brick work shall be measured in cubic meters.

Thickness of Wall:

Brick walls up to and including three bricks in thickness shall be measured in multiples of half-brick which shall be deemed to be inclusive of the mortar joints. Where fractions on half-bricks occur due to Architectural or other reasons, the measurement shall be taken half-bricks.

For walling, which is more than three bricks in thickness, the actual thickness of the wall be measured to the nearest centimeter.

Honey-combed brick walling shall be given in square meters stating the thickness of wall and the pattern of honey-combing. Honey comb openings shall not be deducted.

Deductions:

No deductions or additions shall be made on any account for

- a) Ends of dissimilar materials (i.e. joists, beams, lintels, lofts, grinders, rafters, purlins, trusses, corbels, steps, etc.) up to 500 square centimeters in section.
- b) Opening up to 0.1 sq. in section.
- c) Wall plates, bed plates and bearing of slabs, chajjas and the like where the thickness does not exceed 10 cm. and the bearing does not extend over the full width of the wall.

6) **Stone Masonry :**

Except where otherwise described, stone work and stone walling generally shall be given in cubic meters and facia work in square meters.

When measuring walls, the thickness shall be measured to the nearest one centimeter.

Deductions shall be made as described under brick work.

7) **Plastering and Pointing:**

All plastering and pointing shall be measured in square meters unless otherwise described.

Net are of surface plastered shall be measured. No deductions will be made for ends of joints, beams, posts, etc., and opening not exceeding 0.5 sq.mtr. each and no additions shall be made neither for reveals,

jambes, soffits, sills, etc. of these openings nor for finishing the plaster around openings, ends, of joists, beam and posts, etc.

Full deductions will be made for door, window and ventilator from each side with adding jambes for door, window and ventilator.

8) **Painting, White Washing, Colour Washing and Distempering:**

All painting work shall be measured in square meters.

Net area of surface painted shall be measured. No deductions will be made for unpainted surfaces of ends of joists, beams, posts etc., and opening not exceeding 0.5 sq.mtr. each and no additions shall be made for reveals, jambes, soffits, sills, etc., of these openings. Full deductions will be made for door, window and ventilator from each side with adding jambes for door, window and ventilator. No coefficient will be considered for painting over sponge finished or sand faced plaster.

Note:

The height shall be taken from the bottom of the lowest rail, if the palisades do not go below it (or from the lower end of the palisades, if they project below the lowest rail) up to the top of the palisades, but not up to the top of the standards, if they are higher than the palisades. Similarly, for the gates, depth of roller shall not be considered while measuring the height.

Area painted over sand cement plaster, sponge finished / sand faced plaster / rough cast plaster area painted without considering any coefficient for painting over sand faced plaster.

SECTION – C: WORKMANSHIP

CLEARING OF SITE, EXCAVATION AND EARTH FILLING

Note: Workmanship for all items related to the construction work should be as per relevant I.S. Code.

General:

Trenches for wall foundations, column footings, raft foundations, pile caps, plinth beams, water tanks, cess pits, etc., shall be excavated to the exact length, width and depth shown in the figure on the drawing or as may be directed by the Architect. If taken out to greater length, width or depth than shown or required, the extra work occasioned thereby shall be done at the Contractors own expenses. Extra depth shall be brought up by plain cement concrete filling 1:4:8 proportion and extra length and width filled in by rammed earth or murum or if the Architect thinks it necessary for the stability of the work by 1:4:8 concrete, as may be directed by the Contractors costs.

Excavated material shall be used for filling in plinth, or each side of the foundation blocks or trenches or it shall be spread elsewhere on or near the site of work including watering, ramming and consolidating or carted away from site free of charge, as may be ordered.

The Contractor shall at his own expenses and without any extra charge, make provision for supporting all utility services, lighting the trenches, separating and stacking, serviceable materials neatly, shoring, timbering, stuttering, bailing out of water either sub-soil or rain water including pumping at any stage of the work. Trenches shall be kept free of water while masonry or any concrete works are in progress and until the Architects consider that concrete is sufficiently set.

Excavation excluding in Hard Rock:

Excavation shall be carried out in any type of soil, murum (soft or hard), soft rock, boulders, old foundation, concrete asphalt or stone paved surfaces, old masonry or concrete (plain or reinforced).

Excavation in Hard Rock:

Rock which is in solid beds, which can only remove either by blasting or by wedging or chiseling shall be treated as hard rock. A boulder or detached rock measuring one cubic meter or more, shall blasting, wedging or chiseling.

Where hard rock is met with the blasting operations is considered necessary, the Contractor shall intimate about the same to the Architect.

The Contractor shall obtain license from District / Public authorities for carrying out blasting work as well as for obtaining transporting and storing explosives as per Explosives, Rules 1940 or as amended. He shall purchase the explosives, fuses, detonators, etc., only from a licenses dealer. He shall maintain the account of explosive etc., purchased and used by him. He shall be responsible for safe custody and proper accounting of explosives materials. The Architect shall have access to check store of explosive and accounts thereof.

Blasting shall normally be done with gun powder. Dynamite Gelatin or any other high explosive shall only be used in special cases with written permission of the Architect and District / Public authorities concerned under Explosives Rules.

Blasting operations shall be carried out under the supervision of a responsible representative of the Contractor during certain hours, preferably during lunch break as approve in writing by the Architect. The representative shall be conversant with the rules of blasting.

Proper precautions for the safety of persons shall be taken. Red flags shall be prominently displayed around the area to be blasted and all people on work expect those who actually light the fuses shall be withdrawn to a safe distance of not less than 100 meters from the blast. Blasting shall not be

done within 100 meters of an existing masonry or any other kind of structure unless special precautions are taken by heavy blanketing etc.

Where Blasting is not practicable or prohibited, excavation shall be done by wedging or chiseling and it shall be restricted to the quantity required to enable the necessary foundation etc. to be put in. In case, the dimension of trenches exceeds those shown in drawings or as directed by the Architect, the excess quantity shall not be paid for, the item also covers bailing out subsoil or rain water including pumping at any stage of work, shoring strutting, etc.

Earth Filling:

General: Filling shall be done with good earth, murum, stone chips, or disintegrated building debris. It shall be free from salts, organic matter, black cotton or slushy earth and combustible material. All clods shall be broken.

a) Filling in Plinth :

Filling shall be done in layers not exceeding 25 cm., amply watered and consolidated by ramming with iron or wooden rammers weighing 7 to 8 kgs. and having base 20 cm. square or 20 cm. diameter. When the filling reaches the finished level, surface shall be flooded with water for at least 24 hours, allowed to dry and then rammed and consolidated, after making good any settlement in order to avoid settlement at a later stage. Special care shall be taken to pack earth under plinth beams and column corners. Finished level of filling shall be kept to a slope intended to be given to the floor.

b) Filling in Outdoor portions and for Site Development:

Shall be done in layer of 30 cm. Each layer shall be adequately watered. When filling reaches the required level the top most layer shall be dressed to proper section, grade and camber and rolled by 8 to 10 ton's power roller and adequately watered to aid compaction.

DRY RUBBLE PACKING & LEVELING COURSE.

Dry Rubble Packing: Ground shall first be leveled up and thoroughly consolidated by means of heavy log hammer or frog rams. Rubbles of specified thickness shall then be laid and set with hand. It shall be consolidated by either hand roller or wooden log hammer; free use of water being made during consolidation. All hollows and interstices after consolidation shall be filled up with quarry spalls, stone chips etc., and the packing blinded with stone grit and watered and consolidated by log hammer.

Rubble packing in Road work shall be thoroughly consolidated by means of power rollers of 8 ton's capacity instead of log hammers and the surface

shall be brought to proper grade and camber. After checking the level, grade and camber the surface will again be watered and rolled to receive road structure.

Leveling Course:

It shall be either plain cement concrete of leaner mix or lime concrete which shall be proportioned as stipulated in the relevant item and mixed and placed in position confirming to line and level show on the drawing and compacted by approved means and cured adequately.

Lime concrete shall be prepared by mixing sand and slaked lime in proportion of three parts of sand and one part of lime and ground in a suitable mill and the mortar so prepared shall be added to six parts of the brick bat passing through 50 mm. mesh, mixed well and placed in position and compacted by approved means. The concrete shall be cured adequately.

PLAIN & REINFORCED CEMENT CONCRETE

A) VOLUMETRIC BASIS: -

General: Except where they are varied by the requirements of this specification due provision of Indian Standard Specification IS-456-1964 for plain and reinforced concrete and IS-432 part I and II for Mild and Medium Tensile steel Bars and hard drawn steel wire for concrete reinforcement and any other relevant ISS applicable together with the latest amendments shall be held to be incorporated this specifications. It shall be intent of these specifications to ensure that all concrete placed at various location of the job should be durable, strong enough to carry design, loads, it should wear well and practically be impervious to water. It should be free from such defects as shrinkage, cracking and honeycombing.

Proportioning the Mix :

In ordinary concrete, excluding controlled concrete, proportions of cement to fine and coarse aggregate shall be as specified in the respective items and shall be accurately measured as in table "A" below. These proportions are based on assumption that the aggregates are dry. If aggregates are moist allowance shall be made for bulking in accordance with IS:2386/-. Allowance shall also be made for surface water present in aggregate when computing water contents. Surface water present shall be determined by one of the field methods described in IS:2386/- (Part III). In the absence of exact data, the amount of surface water may estimate by the value given in table "B" below (Table "A" and "B" please see on page nos.124 & 125).

Mixing :

Concrete of 1:2:4 or richer mix shall be mixed in an approved mechanical mixer. The mixer and mixing platform shall be suitably protected from wind and rain. Aggregates shall be accurately measured out in boxes and

mixed dry along with cement, water shall be then added in measured quantity and mixing shall be continued until there is a uniform distribution of the materials and the mass is uniform in colour and in consistency but in no case shall the mixing be done for less than 2 minutes.

When hand mixing is permitted with the approval of the Architect it shall be carried out on water-tight mixing platform and care shall be taken to ensure that mixing is continued until mass is uniform in colour and consistency.

Consistency :

Quantity of water for making reinforced concrete shall be sufficient so as to ensure that concrete shall surround and properly grip all the reinforcement. The best consistency shall be that, which will flow sluggishly without flattening out and without separation of coarse aggregates from the mortar. The degree of plasticity shall depend on the nature of work and atmospheric temperature and whether the concrete is vibrated or hand compacted. The slumps shown in table "C" obtained by standard slump test carried out in accordance with the procedure laid down in IS:119-1959 shall be adopted for different types of work.

Admixtures :

The usage of admixtures is allowed only if approved by the structural consultant and his decision in this regard shall be final.

Transportation:

Concrete shall be conveyed from the place of mixing to the place of final deposit as rapidly as practicable by methods which will prevent segregation or loss of any of the ingredients. If segregation does occur during transport, the concrete shall remix before being placed. In no case, more than 30 minutes shall elapse between mixing the consolidation in its position.

Placing and Compacting :

Concrete shall be placed in layers of suitable thickness or in strips and compacted before initial setting commences and should not be subsequently disturbed. Method of placing shall be such as to preclude segregation and as far as practicable the placing shall be continuous. Special care shall be taken in accordance with IS:456 while laying concrete under extreme weather.

Concrete shall be thoroughly compacted during the operation of placing and thoroughly working around the reinforcement, embedded fixtures and spaded against corners of the form work and by punning, rodding, mechanically vibrating or by any other approved means. In addition, form work shall be tapped lightly by using wooden mallet at the pouring head. The number and type of vibrator to be used shall be subject to the

approval of the Architects and in general immersion type vibrators shall be used. External vibrators shall also be used whenever directed.

The intensity and duration (of vibration shall be sufficient to cause complete settlement and compaction without any stratification of successive layers or separation of ingredients or formation of laitance. Vibrator shall be inserted vertically in the concrete at points not more than 45 cm. apart and withdrawn very slowly when air bubbles no longer come on the surface. Over vibration or vibration of very wet mixes is harmful and should be avoided. Care shall be taken to utilize the vibrator only to compact the concrete and not to spread it, sufficient number of reserve vibrator in good working condition shall be kept on hand at all times, so as to ensure that there is no slackening or interruption in compacting.

Construction Joints :

Concreting shall be carried out end to end continuously as far as possible and when construction joints are totally unavoidable, it shall be located in a predetermined position approved by the Architect. The joints shall be kept at places where the shear force is the minimum and these shall be straight and at right angles to the direction of main reinforcement. When the work has to be resumed, on a surface which has hardened, such surface shall be roughened. It shall be swept clean, thoroughly wetted and covered with a 13 mm. layer of mortar composed of cement and sand in the same ratio as the cement concrete mix. This 13 mm. layer of mortar shall be freshly mixed and placed immediately before the placing of the concrete.

Where the concrete has not fully hardened, all laitance shall be removed by scrubbing the Wet surface with wire or bristle brushes, care being taken to avoid dislodgment of particles of aggregate. The surface shall then be coated with neat cement grout. In horizontal joints the first layer of concrete to be placed on this surface shall not exceed 15 cm. thickness and shall be well rammed against old work, particular attention being paid to corners.

Form Work :

The form work shall conform to the shape, lines and dimensions as shown on the plans and be so constructed as to remain sufficiently rigid during the placing and compacting of the concrete and shall be sufficiently watertight to prevent loss of cement slurry from the concrete. Form work or centering shall be constructed of steel or timber and adequately designed to support the full weight of wet concrete without deflection and retain its form

during laying, ramming and setting of concrete. Timber used shall be properly seasoned so as to prevent deformation when wetted.

All props shall be straight and of full height and no joints shall be allowed. Props shall be braced with thin bamboos or wooden battens and where additional staging is necessary, extra care shall be taken to use bigger

diameters props with bracing at 4 or 5 levels. All props shall be supported on sole plates and double wedges. At the time of removing props these wedges shall be gently eased and not knocked out.

All rubbish, chippings, shavings and saw dust shall be removed from the interior of the forms before the concrete is placed and the form work in contact with the concrete shall be cleaned and thoroughly wetter or treated with non-staining mineral oil or any other approved materials is kept out of contact with the reinforcement.

All form work shall be removed without shock or vibration and shall be eased off carefully in order to allow the structure to take up its load gradually. Forms shall not be disturbed until concrete has adequately hardened to take up superimposed load coming on it and in no circumstances shall forms be struck until the concrete may be subjected at the time of striking.

In the normal circumstances (generally where temperatures are above 21 degrees centigrade) and where ordinary cement is used, forms may be struck after expiry of following periods :

- | | | |
|----|--|---|
| a) | Walls, Columns and Vertical sides
of beam} | 48 hours as may be directly
by the Architect |
| b) | Bottom of slab up to 4.5 m. span. | 7 days. |
| c) | Bottom of slab up to 4.5 m. span.
bottom of beam and arch rib up to
6 m. span. | 14 days. |
| d) | Bottom of beams and arch
rib over 6 m. span. | 21 days. |

However, this period may be increased or decreased at the discretion of Architects. Special care shall be taken while striking the centering of cantilevered slab canopies, portal frames, folded plate construction and period of striking centering shall be as determined by the Architect.

If directed, form shall be given an upward camber to ensure that the beams do not have any sag. Surface that becomes exposed on removal of forms shall be carefully examined and any fins, burrs, projections etc., that are detected shall be removed. Any honeycombing of minor nature shall be finished neatly with cement mortar 1:2.

Any work showing signs of damage through premature or careless removal of centering or shuttering, shall be reconstructed by the contractor at his own cost.

Strength :

Concrete mixed in the proportion desired shall have compressive strength after placing, not less than the following:

No	Concrete Mix.	Minimum compressive strength @ 7 days	Minimum compressive strength @ 28 days
1	1:1:2	160 Kg. / Sq.mtr. (2250 Lbs. / Sq. inch).	250 Kg. / Sq.mtr. (3500 Lbs. / Sq. inch).
2	1:1½:3	132 Kg. / Sq.mtr. (1875 Lbs. / Sq. inch).	200 Kg. / Sq.mtr. (2850 Lbs. / Sq. inch).
3	1:2:4	106 Kg. / Sq.mtr. (1500 Lbs. / Sq. inch).	150 Kg. / Sq.mtr. (2250 Lbs. / Sq. inch).

Tests :

Tests on concrete shall be carried out in accordance with IS-456/- and any other is applicable. The frequency of work test shall be at such intervals as ordered by the Architect and subject to that every 150 cu.m. of concrete placed or part thereof and for a day's concrete exceeding 30 cu.m. a batch of 6 cubes shall be made for every sample and 3 of them tested after 7 days and the remaining 3 cubes shall be tested after 28 days. The criteria for acceptance of a concrete as confirming to a specified proportion / grade of concrete shall be in accordance with IS:456 and the Contractor shall entirely re-do the rejected work at his own cost. Strength of 28 days shall alone be considered for acceptance.

The Contractor shall arrange to carry out the tests in accordance with the relevant Indian Standards Specifications in an approved laboratory and the test reports in original be submitted to Architect. The entire cost of testing shall be borne by the Contractor.

Steel Reinforcement :

Reinforcement shall be accurately fabricated, placed and adequately maintained in position as shown on the drawings or as directed by the Architect. All finished bars shall be free from cracks, surface flaws, laminations, jagged and imperfect edges. Cement mortar blocks shall be used to give requisite cover as shown be firmly tied with binding wire of 16 to 18 gauge. Reinforcement shall be bent in accordance with the procedure stipulated in IS:2502-1963 and will not be straightened in a manner which will injure the material.

All reinforcement shall immediately before placing in concrete be thoroughly cleaned of loose mill scale, loose rust, oil and grease or other deleterious matter that would destroy or reduce bond.

Reinforcement in reinforced concrete members shall not be connected by welding or coupling except in accordance with relevant ISS and with the previous approval of the

Architect. Overlaps and joints shall be staggered and located at points, along the spans where neither shear nor bending moment is maximum.

Cover :

Reinforcement shall have cover as shown on the R.C.C. drawings and where not specified the thickness of cover shall be as follows. Cement mortar blocks in C.M. 1:1 shall be used for making cover blocks.

- At each end of reinforcing bar not less than 25 mm. not less than twice the diameter of such rod or bar.
- For a longitudinal reinforcing bar in a column not less than the diameter of such rod or bar. In the case of columns of minimum of 20 mm. or under whose reinforcing bars do not exceed 13 mm. the cover of 25 mm. may be used.
- For longitudinal reinforcing bar in a column not less than 25 mm. not less than diameter of such rod or bar.
- For tensile, compressive, shear or other reinforcement in a slab not less than 13 mm. nor less than diameter of such reinforcement, and
- For ant other reinforcement not less than 13 mm. not less than the diameter of such reinforcement.

WEIGH-BATCHING BASIS i.e. (DESIGN MIX CONCRETE):

Workmanship of Design Mix Concrete shall be carried out in accordance with I.S:456 – 2000 and any other I.S. Code is applicable.

TABLE – A

No	Nominal Mix.	Quantity of aggregates required per 50 kgs of cement.		Quantity of water required per 50 kgs of cement.	
		Fine Cu.m.	Coarse Cu.m.	Vibrated	Un-vibrated
				(For dry aggregate)	
1	1:1:2	0.035 (1.2 C.ft.)	0.070 (2.4 C.ft.)	22 lit. Gal.)	27 lit. (4.8 (6 Gal.)
2	1:1½:3	0.052 (1.8 C.ft.)	0.106 (3.6 C.ft.)	23 lit. Gal.)	30 lit. (5 (6 Gal.)
3	1:2:4	0.070 (2.4 C.ft.)	0.138 (4.8 C.ft.)	27 lit. Gal.)	32 lit. (6 (7 Gal.)
4	1:3:6	0.105 (3.6 C.ft.)	0.210 (7.2 C.ft.)	28 lit. Gal.)	34 lit. (6.25 (7.5 Gal.)
5	1:4:8	0.150 (4.8 C.ft.)	0.280 (9.6 C.ft.)	-- --	45 lit. (10 Gal.)

TABLE – B

No	Aggregate	Approx. quantity of surface water in Lit / Cu.m.
1	Very wet sand.	120
	Moderately wet sand.	80

3	Moist sand.	40
4	Moist gravel or crushed sock. Coarser the aggregate, lesser the water it will carry.	20 to 40

TABLE – C

No.	Type of Work	<u>SLUMPS</u>	
		When vibrated	When not vibrated
1.	Mass concrete in R.C.C. foundation footings.	2.5 cms. (1")	5 cms. (2")
2.	Beams, slabs, columns with simple reinforcement.	2.5 cms. to 5 cms. (1" to 2")	5 cms. to 10 cms. (2" to 4")
3.	Thin sections with congested reinforcement.	5 cms. to 10 cms. (2" to 4")	10 cms. to 15 cms. (4" to 6")

Note: Should conditions governing slump and workability changed pointing to advisability of an increased slump, this shall only be done by decreasing the amount of aggregate and not by increasing the amount of water.

A) WEIGH-BATCHING BASIS i.e. (DESIGN MIX CONCRETE):-

Workmanship for design mix concrete shall be carried out in accordance with I.S. 4562000 and any other I.S. code is applicable.

BRICK AND STONE MASONRY

General :

All brick work should be carried out as shown on the drawings with setbacks, projections, cuttings, toothings, etc. Wherever the proportion of cement mortar has not been specifically mentioned, cement mortar in the proportion of 1:6 shall be used. Flat bricks arches shall be provided wherever required without any extra cost. Brick work shall be kept wet while in progress, till mortar has properly set. On holidays or when work is topped, top of all unfinished masonry shall be kept wet. Should the mortar become dry, white or powdery, for want of curing work shall be pulled down and rebuilt at the Contractor's expenses.

Brick Work 1st Class:

Bricks shall be thoroughly cleaned, well wetted and soaked for at least twelve hours in fresh water before being used on the work. Bricks shall be of locally, available best quality.

English bond shall be used throughout in walling. A good bond shall be maintained throughout the work, both laterally and transversely. In walling,

the courses shall be kept perfectly horizontal and in plumb with the frogs facing upwards. Vertical joints shall not exceed 10 mm. thickness and shall be full of mortar. No broken bricks shall be used except as closers. After day's work all joints shall be raked to 12 mm. depth to provide for proper key to plastering.

Mortar used shall be as specified in respective items and every third course of brick work shall be flushed with mortar grout.

Whole of the masonry work shall be brought up at one uniform level throughout the structure; but where breaks are unavoidable, joints shall be made in good long steps. All junctions of walls and cross walls shall be carefully bounded into the main walls. The rate of laying masonry may be up to a height of 60 cm. per day if cement mortar is used and 45 cm. per day if lime mortar is used. Greater heights may be built only if permitted by the Architect.

During rains, the work shall be carefully covered to prevent mortar from being washed away. Should any mortar or cement be washed away, the works shall be removed and rebuilt at the Contractor's expenses.

Bricks Work 2nd Class:

Shall be similar to 1st class brick work except that 2nd class bricks shall be used and joints shall be 10 mm. to 12 mm. thick.

Half Brick Masonry:

Shall be set in cement mortar as specified. Hoop iron bands of 2.5 cm. x 0.16 (1" x 1/16") shall be embedded in every fourth course with thick mortar band or 2 Nos. 6 mm. (1/4") dia.

bars shall be used in every sixth course otherwise as specified under item.

RUBBLE MASONRY

General :

Stones shall be of the kind specified in the item and shall be from an approved quarry. Stones shall be well wetted before laying in position. The mortar shall be as specified in the item. Face stone shall not be less than in breadth than in height, it shall also tail into the work more than its height. Jambs of doors, windows and openings shall be formed with quoins. In case of battered walls, the courses on battered surface shall be at right angle to the batter.

Through stones or headers shall be laid in every course at a distance not exceeding 2 meters part and shall be staggered. They shall be in one piece for walls up to 1.5-meter width and shall be lap jointed in case of wall having thickness more than half meter. The face area of each header shall not be less than 0.50 sqm. 1:2:4 cement concrete may also be allowed where good length headers are not available. Headers shall be marked with oil paint for ready identification.

Height of quoins shall be same as that of the course. Length of quoins shall be 0.50 m. and shall be laid header and stretcher alternatively. Faces of quoins shall be fair dressed. No quoins stones shall be less than 0.30 cum. In content. Joints of masonry shall be raked out and unless otherwise stated, shall be raised cement pointed by using cement mortar 1:1 to all exposed surfaces. All masonry work shall be well watered for a period of seven days.

a) **Coursed Rubble Masonry – First Sort :**

Height of course shall not be less than 15 cm. and all courses shall be of uniform height. All stones in the course shall be of same height. In no case height of course shall be more than any of the course below it. Bed and sides shall be hammer or chisel dressed back from the face 75 mm. and 35 mm. respectively.

Faces of stones shall be hammer dressed and bushing shall not be more than 35 mm. Thickness of joints shall not be more than 10 mm. Stones shall break joints at least half the height of the course. Work on interior face shall be precisely the same, as on exterior face.

Quoins shall be at least 0.5 m. long laid square on their beds and shall be fair dressed to a depth of at least 10 cm.

b) **Uncoursed Rubble Masonry :**

Stones shall be hammer dressed. Nearly fifty per cent of stones shall not be less than 0.30 cum. in content each, and twenty-five per cent of stone shall tail back in masonry by 40 cm. or more. Stones shall be so arranged as to break joints as much as possible.

Long vertical joints shall be carefully avoided. Thickness of joints shall in no case exceed 12 mm.

Pillar offsets shall be properly dressed with hammer or chisel to form proper angle. Stones used for the backing shall be of fairly large size.

c) **Random Rubble Masonry – First Sort :**

Stones shall be roughly chisel dressed. They shall be solidly bedded in mortar. Height of stone shall not be more than width of face or length of tail. Stones shall be of equal size and so arranged as to break joints as much as possible, avoiding long lines of horizontal or vertical joints. Quoins shall be same as described in Coursed Rubble Masonry – 1st Sort. All stones shall be carefully fitted. Thickness of face joint shall be not exceeded 25 mm. Edges of stones shall be chisel dressed for fitting in position properly.

M.S.Gate, M.S. GRILLES ETC.

Steel used in the manufacture of rolled steel sections shall not have more than 0.060 per cent of Sulphur and 0.065 per cent of phosphorus. The carbon content shall not exceed 0.30 per cent and shall be of weldable quality. In all other respects, the rolled steel sections shall conform to I.S. 226-1955 and I.S. 1977-1962.

Frames shall be square and flat. Both the fixed and openable frames shall be constructed of sections which have been cut to length, mitred and electrically welded at corners. Subdividing bar units shall be tenoned and rivetted into the frames. All frames shall have the corners welded to a true right angle and welds shall be neatly cleaned off. Couplings, mouldings and weather bar shall be provided as directed by the Architects.

Outer frames shall be provided with fixing holes centrally in the web of the sections and fixing screws and lugs shall be used for fixing the frame to masonry. Mastic cement shall be used for making the joints watertight.

Hinges shall be strong projecting type. If directed friction type hinges shall be used in which case windows shall not be fitted with peg stays. Projecting type hinged shutter shall be fitted with bronze or brass peg stays, 30 cm. long with peg and brackets welded / riveted to the frame or as sated under item.

All windows shall be provided with handles of brass or bronze or otherwise as stated under them.

Top hung ventilators shall be fixed with plain hinges rivetted / welded to the fixed frame. A brass or bronze peg stay 30 cm. long as in windows shall be provided or as stated under item.

Center hung ventilators shall be hung on two pairs of brass or leaded tin bronze cup pivots rivetted to the inner and outer frames of the ventilators to permit the ventilators to swing through an angle of approximately 85. The opening position of the ventilator shall be so balanced to keep it open at any desired angle under normal weather conditions. A bronze spring catch shall be fitted in the center of the top bar of the ventilator for the operation of the ventilator. This spring catch shall be secured to the frame with brass screws and shall close into a mild steel malleable iron catch plate rivetted or welded to outside of the outer ventilator frame bar. A brass cord pulley wheel in mild steel or malleable iron brackets shall be provided along with card eye.

The windows and ventilators shall be painted. All the steel surfaces shall be thoroughly cleaned free of rust, scale or dirt and mill scale by picking or phosphating and before erection painted with one coat of approved primer and after erection painted with two finishing coats of synthetic enamel paint of approved shade and quality.

Glazing of specified thickness shall be provided on the outside of frames and unless otherwise specified, metal beading of approved shape, and section shall be used for fixing glasses. Special metal sash putty of approved make shall be used, if directed.

Wrought Iron Grilles:

Grilles shall be manufactured as per drawings and the welded joints shall be smooth. The grilles shall be painted with one coat of anti-corrosive paint before fixing and two coats of synthetic enamel paint of approved quality and shade.

PLASTERING

Scaffolding:

Scaffolding for carrying out plastering work shall be double steel scaffolding having two sets of vertical supports so that the scaffolding is independent of the walls.

Preparation of surface:

All putlog holes in brick work and junction between concrete and brick work shall be properly filled in advance. Joints in brick work shall be raked about 10 mm. if not raked out while constructing brick masonry work and concrete surface hacked to provide the grip to the plaster, if not hacked earlier projecting burns of mortar formed due to gaps at joints in shuttering shall be removed.

The surface shall be scrubbed clean with wire brush / coir brush to removed 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 six hours before application of plaster.

Neeru Plaster:

Cement mortar of specified proportion and thickness shall be prepared in small batches and applied to the wall surface / ceiling. The ensure proper thickness, gauged patches shall be

made at 1.5 to 2 m. apart and the surface plastered true to line, level and plumb taking special care to finish jambs of windows, doors, wall returns, corners, junctions etc. A thin layer of neeru shall then be applied and rubbed into surface and finished by means of trowel until the surface is even and smooth. The surface shall be kept moist for seven days and then given a coat of white wash.

Sand-faced Plaster:

The surface shall be prepared as above.

The coat of cement mortar in proportion of 1:4 or as specified, shall be applied uniformly all over the surface to a thickness of 12 mm. and finished true to level and line and keys shall formed on the surface. The surface shall be kept moist till the finishing coat is applied.

The finishing coat shall be applied a day or two after. The proportion of mortar for finishing coat shall be one part of cement and three parts of selected, well graded and washed sand, or as specified under item and it shall be applied in a uniform thickness of 6 mm. (1/4").

The surface shall be tapped to uniform grained texture by using sponge pads as directed. Curing shall start after 24 hours and the surface kept wet for seven days.

Rough Cast Plaster:

Except for the finishing coat the surface shall be prepared and base coat of plaster applied as under sand-faced plaster.

Finishing coat mortar shall be in proportion of one part of cement and one part of specially selected and graded sand and one part of gravel of 3 to 6 mm. size. It shall be flung upon the first coat with large trowel to form an even and decorative coat. The work shall generally conform to clause 16.5 of IS:1661-1960. The thickness of the coat shall be about 12 mm. (1/2"). It shall be cured for seven days.

Rough coat plaster with colour finish:

This finish shall be similar to Rough cast plaster above except a high-grade mineral pigment of approved shade shall be mixed with white cement instead of ordinary grey cement while preparing the mortar.

Water-proofing Treatment :

Unless otherwise specified, the Contractor shall carry out waterproofing treatment of basements, terrace and water retaining structures through reputed firms having specialization in the line and approved by the Architects. The Contractor shall also furnish full details of such treatment to the Architects and provide all information / proof etc., regarding the effectiveness of the treatment when called upon to do so. All such treatment shall have to be guaranteed in the form approved by the Employer for a minimum period of ten years. Any defects / leakages noticed during the guarantee period shall have to be rectified free of cost by the Contractor including reinstating the surface to its original condition and finish.

Water-proofing of sunk portions of floor slabs for baths, W.C. and kitchen moies etc., in residential buildings, unless otherwise specified, shall be done as specified in the schedule and shall generally comprise of :

- a) A coat of hot bitumen, min. 6 mm. thick screened with stone grit.
- b) Min. 20 mm. thick cement plaster in cement mortar 1:3 with approved water-proofing cement compound as per manufactures specifications. The plaster shall be cured by pounding for seven days.

The rate for the above treatment shall include drying and cleaning surfaces free of dust etc. and wiping with kerosene before application of bitumen. The vertical faces and returns shall also be treated similarly. The actual area treated including vertical faces and returns shall be measured and paid for. The work should be done in such a way that the finished flooring in bath has a minimum slope of 20 to 25 mm.

PAINTING General:

Wherever scaffolding is necessary, it shall be double scaffolding.

The surface shall be thoroughly brushed free from mortar droppings and foreign matter. All steel work shall be cleaned of loose rust, mill scales etc. so as to expose the original surface. All broken edges, cracks, loose plaster and wavy surface shall be brought up either by patch plaster work or by plaster of paris.

All materials viz., dry distemper, oil bound distemper, oil paint, flat oil paint, synthetic enamel paint, plastic emulsion paint, cement primer, red lead and other primers and

metallic paints shall conform to respective I.S. specifications and shall be obtained from approved manufactures. All paints shall be brought on site in sealed thins in ready mixed form and shall be applied direct with the addition of thinner, if recommended by the manufacturers.

White Washing:

White was shall be prepared from lime slaked on spot, mixed and stirred with sufficient water to make a thin cream. This shall be allowed to stand for 24 hours and shall be screened through clean cloth. Four kg. gum dissolved in hot water shall be added to each cubic meter of the cream (115 gm. per cft.).

Blue shall be added to give required whiteness. The approximate quantity of water to be added in making cream shall be five liters per kg. of lime.

White wash shall be applied in specified coats by using flat brushes or spray pumps. Each coat shall be allowed to dry before next coat is applied. If additional coats than what have been specified, are necessary to obtain uniform and smooth finish, it shall be given at no extra cost.

The finished dry surface shall not show any signs of cracking and peeling nor shall it come off readily on the hand when rubbed.

If directed by the Architects one coat of chalk and glue shall be applied before application of white / colour wash at no extra cost.

ColourWash:

Colour wash shall be prepared by adding mineral colours not affected by lime to white wash. No colour wash shall be done until a sample of the colour wash to the required tint or shade has been got approved form the Architects.

Colour wash shall be applied as specified under white wash.

Dry Distemper:

Shade shall be got approved from the Architects before application of distemper.

The surface shall be prepared as specified earlier. A primer coat using approved primer or sizing shall be applied. Distemper prepared as per manufacturer's directions shall be applied and each coat shall be allowed to dry before subsequent coat is applied. The finished surface shall be free from chalking when rubbed, even uniform and shall show not brush marks. If additional coats are necessary, they shall be given at no extra cost.

Oil Bound Distemper:

The surface shall be prepared as specified above. A primer coat of either cement primer or any approved distemper primer shall be applied.

After the primer coat has dried, the surface shall be lightly sand papered and dusted to make to smooth to receive distemper.

Distemper shall be prepared as per the directions of the manufacturer and conforming to shade approved. It shall be applied in specified coats, taking care to allow for drying of each coat before subsequent coats are applied.

Water-proof Cement Paint / Sand-tex matt Paint:

The surface shall be prepared as specified above and thoroughly wetted with clean water before water-proof cement paint is applied.

The paint shall be prepared strictly as per manufacturers specifications and in such quantities as can be used up in an hour of its mixing, as otherwise the mixture will set and thicken, affecting flow and finish.

The paint thus prepared shall be applied on clean and wetted surface with brush or spraying machine. The solution shall be kept stirred during the period of application. It shall be applied on the surface which is on the shady side of the building so that the direct heat of the sun on the surface is avoided. The completed surface shall be watered after the days work. Number of coats shall be as specified in the item.

Bitumen 80/100 penetration of approved manufacturer, heated to a temperature of 177 to 190 C. (350 to 375 F) shall then be applied evenly to the road surface by means of a pressure distributor or hand-spray at the rate of 12.5 kg. / 10 sqm.

MATERIAL TEST LIST

The Contractors will have to take necessary material test as per I.S. code which is applicable, at their own cost for the following materials or any other material using in construction work periodically or as and when required by the Architects / Consulting Engineer.

The materials should be got tested in an approved Laboratory as per IS standard and test reports in duplicate should be submitted to the Architect's Office.

- | | | | | |
|----|-------------------------------------|---|----|--------------------------------|
| 1) | Sand | : | a) | Silt Content. |
| b) | Bulking. | | | |
| c) | Particle size distribution. | | | |
| d) | Or as directed. | | | |
| 2) | Stone aggregate | : | a) | Soft and deleterious material. |
| b) | Particle size distribution. | | | |
| 3) | Cement Concrete RCC mix | : | a) | Slump. design |
| | | | b) | Cube strength. |
| | | | c) | Or as per I.S. 456-2000 |
| 4) | Bricks | : | a) | Dimensions |
| b) | Water absorption and efflorescence. | | | |
| c) | Compressive strength. | | | |
| 5) | Timber | : | | Moisture. |
| 6) | Ceramic/Vitrified Floor Tiles | : | a) | Transverse strength. |
| b) | Water absorption. | | | |

c) Abrasion test.

7) Steel : a) Tensile
: b) Bend.

Note: The Contractor will have to take necessary material test other than above test as per relevant I.S. code, if required and as directed by Architect / Owner.

MATERIAL TESTING

A chart showing the recommended time and quantity scheduled for conducting test on various building materials is given. Please ensure that tests are carried out according to the above guidelines. Contractor's rate should include for necessary expenditure for testing including transport of samples of following tests.

No	Material	Test	Test Procedure	Minimum Quantity	Frequency
1	Sand	a) Silt Content Bulking b) Particle size distribution c)	Field Field Field	20 Cum 20 Cum 40 Cum	20 Cum or part thereof --- Do --- Every 40 Cum required for RCC work.
2	Stone	a) Soft and Deleterious b) Particle size distribution	IS - 2336 Part – II Field	45 Cum.	As required. Every 45 Cum part thereof for RC work. For rest of work as desired.
3	Cement or Concrete or RCC	Slump Cube Strength	Field / Field Laboratory	20 Cum slab, beams and connected columns 5 Cum in columns	Once a day or as desired. Every 20 Cum of a day's concrete. Every 5 Cum column concrete.



4	Steel	a) Tensile Strength	IS - 1529	20 tonnes	Every 20 tonnes or part.
		b) Bend Strength	---- Do ----	---- Do ----	---- Do ----
5	Lime	Chemical and Physical Properties of lime.	IS - 6932	5 M.T.	10 M.T. or part thereof
No	Material	Test	Test Procedure	Minimum Quantity	Frequency
	Bricks	Dimensions Water absorption Efflorescence compressive strength		Designation 100 75) 50) 40,000 35) --- Do --- 100- 40,000 75) 50) 100,000 35)	Every 40,000 or part thereof. Every 100,000 or part thereof one test for source of 40,000 or part thereof. Two tests for 1 st lot of 40,000 and one test later for every 40,000 and part thereof.
7	Brick Tiles	Compressive Strength Efflorescence		40,000 40,000	For 40,000 or part. One test per Source.
8	Marble	Moisture absorption Mohs hardness scale	IS - 1124 - 1974 IS - 1706 - 1972	Rs.10,000/- Value	Rs. 10,000/- or part thereof. (Value)
9	Timber	Moisture	IS - 11215 - 1985	1 Cum.	Every one Cum and part.
10	Aluminum door or window fitting	Thickness of anodic coating.	IS - 5523 - 1969	Rs. 5,000/-	Rs. 10,000/- or part thereof.



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11	Ceramic Tiles / Vitrify Tiles / Designer precast Concrete Tiles and interlocking paver block	a) Transverse Strength b) Water Absorption c) Abrasion test	IS – 1237 --- Do --- --- Do ---	200 Tiles --- Do --- --- Do ---	2000 Tiles or part. --- Do --- --- Do ---
12	Flush Door	a) End Immersion b) Knife c) Adhesion	IS – 2207	22 – 65 66 – 100 101 – 180 181 – 300 301 – 500 501 – above	Destructive tests No. of shutters. 1 2 2 3 4 5

No	Material	Test	Test Procedure	Minimum Quantity	Frequency
13	Tar felt Type-3 Grade - I	Conform to I.S. 1322 – 1970			One Test
14	Pig lead	I.S. 782 – 1978			One Test
15	R.C.C. design mix M-25	All test as per I.S.:456-2000		As per directed	As per directed

Note : The Contractor will have to take necessary material test other than above test as per I.S. code for above material or other than above material, if required and as directed by the Architect / Owner.

SPECIFICATIONS FOR SANITARY, PLUMBING AND WATER SUPPLY INSTALLATION WORK

GENERAL

SECTION – A

The scope of work covers supplying and installing sanitary plumbing, water supply and drainage items of the Civil/ External works, painting, Interiors & Electrical works for Proposed Construction of RSETI Building at Nagaon, Dhule in accordance with drawings and relevant I.S. code specifications.

CONTRACT:

The form of Contract shall be according to the printed form "Conditions of Contract". The following Clause shall be considered as an extension and not in limitation of the obligation of the Contractor.

DRAWINGS:

All-important drawings shall be mounted on boards and placed in racks and indexed; no drawings shall be rolled.

DIMENSIONS:

Figured dimensions shall in all cases be accepted in preference to scaled sizes. Large scale details take precedence over small scale drawings. In case of any discrepancies the Contractors shall ask for clarification from the Architect before proceeding with the work.

CONTRACTOR TO INSPECT SITE:

The Contractor should visit and examine the site of work and satisfy himself as to the nature of existing roads and other means of communication and other details pertaining to the work and local conditions and facilities for obtaining his own information on all matter affecting the execution of the work. No extra charge made in consequence, if any misunderstanding or incorrect information on any these points or on grounds of insufficient description will be allowed.

SETTING OUT:

The Contractor shall set out the drainage, soil, waste and water pipe lines and other fittings and fixtures in accordance with the plans and instructions of the Architects. The Contractor shall be responsible for the correctness of the above and any inaccuracies are to be rectified at his own expense as stated in Clause of the Conditions of Contract. He will be responsible for taking levels of the site before setting out and putting them on record without extra charge.

WORK PROGRAMME:

The Contractor should not that the work should be executed and completed ahead of the completion of the general building work and the Contractor shall take care to see that no damage or breakage is done to work once it is constructed and finished. The sanitary and water supply work shall be programmed in such a way that it does not hold up the general construction or works of other trades.

In case of non-availability of materials in metric sizes, the nearest sizes in FPS units shall be provided with prior approved of the Architects for which neither extra will be paid nor any rebate shall be recovered.

If directed, materials shall be tested in any approved Testing Laboratory and the Contractor shall produce the test certificate in original to the Architect and entire charges for originals as well as repeated tests shall be borne by the Contractor. If required by the Architects, the Contractor shall arrange to test portions of the work at his own cost in order to prove their soundness and efficiency. If after any such test the work or portion of work is found, in the opinion of the Architects, to be defective or unsound, the Contractor shall pull down and redo the same at his own cost. Defective materials shall be removed from the site.

It shall be obligatory for the Contractor to furnish Certificate, if demanded by Architect, from manufacturer or the material supplier, that the work has been carried out by using their material and installed / fixed as per their recommendations.

CEMENT:

Cement shall comply in every respect with the requirement of the latest publication of IS:269 and unless otherwise specified, ordinary Portland Cement shall be used.

The weight of cement in sealed bags shall be considered as 50 kgs. being equivalent to 35 liters (1.2 Cft.) in volumes.

Cement shall be stored in weather-proof shed with raised wooden plank flooring to prevent deterioration by dampness or intrusion by foreign matter.

SAND:

River Sand shall be clean, free from salt, clay, shells vegetable matter and fit for use in the opinion of Architects.

COARSE AGGREGATE:

Coarse Aggregate shall be angular, tough, sharp and well graded stone metal from approved source. It shall be clean and free from any foreign material. If directed the materials shall be washed.

BRICKS:

Bricks shall be locally available and of the approved quality and well burnt, free from cracks, chips, flaws and stones. It shall not absorb water more than 20% of its own weight when dry.

CEMENT MORTAR:

Cement mortar shall be of the proportion specified in the particular item in the Schedule of Quantities. Sand shall be measured in suitable measuring boxes and correct quantity of cement shall be added. The materials are mixed dry on a clean platform. Clean water is then added and mixed thoroughly. It shall be prepared in such quantity as can be readily used up. Mortar which has partially set shall under no circumstances be re-tampered by mixing with additional materials or water.

I. DRAINAGE (INTERNAL AND EXTERNAL)

STONEWARE PIPE AND FITTINGS:

Shall comply IS:651 in every respect and all stoneware pipes, bends, gully traps and sewer traps shall be of the best salt glazed, variety, glazed inside as well as outside, hard, smooth, even, textured, free from fire cracks, blows and blisters. The pipes shall be truly circular in cross section perfectly straight and of standard nominal diameter, length and depth of socket.

TREASURE TROVE:

Should any treasure, fossils, minerals or work of are antiquarial interest be found during excavation or while carrying out the work, the Contractor shall give immediate notice to the Architects of any such discovery and shall make over such finds to the Employer.

ACCESS FOR INSPECTION:

The Contractor shall provide at all times during the progress of the works and the maintenance period, proper, facilities and necessary attendance for inspection or measurement of works by the Architects or their representatives.

WATER SUPPLY:

Water shall be arranged in accordance with Clause No. 56 of Special Conditions of Contract.

ELECTRIC SUPPLY:

Electric energy shall be arranged in accordance with Clause No. 57 of Special Conditions of Contract.

VOUCHERS:

The Contractor shall furnish to the Architects with vouchers on request to prove that the materials are as specified and to indicate the rates at which the materials are purchased in order to work out the rate analysis of the non-tender items which he may be called upon to carry out.

SECTION – B

WORKS TO COMPLY LOCAL REGULATIONS AND RATE TO INCLUDE:

- 1) All sanitary installations, water supply and drainage work shall conform to the Local Municipal Bye-Laws and / or rules and regulations of Local Bodies and the work shall be inspected and passed by the various authorities having jurisdiction.
- 2) The work shall be carried out through a Licensed Plumber.
- 3) The Contractor shall arrange with the Local Municipal and / or Public Authorities for obtaining water and drainage connections and the Employer will reimburse the permanent connection charges on production of receipts.
- 4) The Contractor shall obtain all necessary permission forms from the various authorities having jurisdiction and shall make application and file all plans required for obtaining permission and satisfactory completion of the work.
- 5) The rates quoted shall be for complete items as fixed in position and cover all costs of materials, labour, tools, supervision, cutting of holes, chases, etc., and also for providing, fixing arrangements viz. clamps, brackets, wooden blocks etc. The rates shall also include restoration to original condition of all damage to walls, floors etc., during the process of fixing of sanitary installations, water supply and drainage. All debris of plumber's excavation etc., shall be removed without any extra charge.
- 6) All C.I. pipes, brackets, C.I. cisterns, G.I. pipe and fixtures, M.S. fixtures, A.C. pipes and fittings shall be painted externally with one coat of approved primer and two coats of enamel / flat oil paint. All painting work shall be carried out to the entire

satisfaction of the Architects. If directed, additional coats of paint shall be applied to get uniform and matching finish without any extra cost.

- 7) In the interior of the building all pipe whether of Cast Iron lead or G.I. shall be embedded in an approved manner in chases made in walls or floors if required by the Architects. The plumbers shall make necessary holes in the walls, etc., and restore them to the original condition.
- 8) All water supply and sanitary fixtures, pipes and pipe fittings, traps etc., which are to be embedded into the concrete or masonry work or other building work shall be placed in position and embedded or concealed at the time of casting concrete or erecting brick work. In case where chasing or cutting of concrete, masonry, or other structural or construction work is unavoidable, the locations of such fittings, pipe lines and traps, etc., shall be marked suitably and the cutting, chasing or disturbing of the construction work shall proceed only after due approval of the Architects.
- 9) All cutting, chasing and fixing work shall be completed before commencement of any plastering, tiling or finishing work.
- 10) Unless otherwise specified Galvanised Iron pipes and pipe fittings shall be of medium quality conforming to IS: 1239 and shall be tested if required by the Architects.
- 11) The Contractor shall responsible for the adequacy and efficiency of the entire plumbing system and if, in his opinion he finds any serious objection to the system shown on the drawing, he shall set forth his objection or his suggestions to ensure adequacy and efficiency of the said system and notify the Architects before proceeding with the work.
- 12) The work in every respect during its progress and till final acceptance by the Employer, including raw materials delivered to the work site to be incorporated for use in construction of the work by the Contractor shall be under the charge and in the care of and under the responsibility of the Contractor and at his risk. Any loss or damage to such materials or work prior to final acceptance of the work by the Employer shall immediately be replaced by the Contractor at his expense.

SECTION – C

MATERIALS: (AS PER BILL OF QUANTITIES ATTACHED)

- 1) Materials shall be of best approved quality obtainable and unless otherwise specified they shall conform to the respective Indian Standard Specification.
- 2) Samples of all material be got approved before placing order and the approved samples shall be deposited with the Architects.
- 3) In case non-availability of materials in metric sizes, the nearest size in FPS units shall be provided with prior approval of the Architects for which neither extra will be paid nor any rebate shall be recovered.
- 4) If directed, materials shall be tested in any approved Testing Laboratory and the Contractor shall produce the test certificate in original to the Architect and entire charges for original as well as repeated tests shall be borne by the Contractor. If

required by the Architects, the Contractor shall arrange to test portions of the work at his own cost in order to prove their soundness and efficiency.

If after any such test the work or portion of works is found, in the opinion of the Architects, to be defective or unsound, the Contractor shall pull down and redo the same at his own cost. Defective materials shall be removed from the site.

- 5) It shall be obligatory for the Contractor to furnish certificate if demanded by Architect, from manufacturer or the material supplier, that the work has been carried out by using their material and installed / fixed as per their recommendations.

MODE OF MEASUREMENT

General:

The description of each item in the Bill of Quantities shall be read in conjunction with its specifications for materials and work and unless otherwise stated shall be held to include for necessary conveyance and delivery, handling, unloading, storing, fabrication, hoisting, lowering, all labour for finishing to the required shape and size, setting, fitting and fixing in position, straight cutting and waste and other incidental operations. Any item not mentioned hereunder shall be measured and paid for as per IS 1200 for the respective item.

External Drainage:

- a) Pipes shall be classified according to their diameter. The measurement shall be taken along the center lines of pipes between the inner faces of 2 manholes. The rates shall be inclusive of cutting, jointing, testing and commissioning.
- b) Excavation for trenches for laying drainage lines shall be paid as per volumetric measurements. The length of the trench shall be measured along its center line between the outside faces of 2 manholes. The width shall be the average of the width measured at the top and bottom of the trench. The depth shall be arrived at by measuring the depths at, at least 3 places in the trench, and finding the average of the same. If the ground is undulating, then more than 3 readings shall be taken. The volumetric measurements shall be arrived at by length x Average width x Average depth.
- c) Excavation in rock shall be paid on volumetric measurements of the stack after deducting 40% of the volume for voids. Volume of the stack shall be arrived at by using Simpson's Rule.
- d) Manholes, chambers, septic tank shall have enumerated and paid per number as described under:
 - 1) Unless otherwise stated, net length of all pipes shall be measured including all fittings such as bends, junction etc., in running meters. The length shall be taken along the center line of the pipes and fittings.
 - 2) Length of fittings viz. taps, valves, traps, etc., which are paid under appropriate items shall not be measured under liner measurements as enumerated above.

- 3) Soil waste and vent pipes shall be measured along the center line of the stack including the connecting bends / tees to W.C. Pan, Nahani trap, etc., and shall be paid as enumerated above.
- 4) W.C. Pans, Lavatory basins, Sinks, Drain Boards, Urinals, Mirrors, Glass shelf, Toilet Paper Holder, shall be measured by number and shall include all accessories as enumerated in detail specification under each item.
- 5) Unless otherwise specified, all types of taps, valves, etc., shall be measured by number and paid separately.
- 6) Manholes, Inspection Chambers, Gully Traps, etc., shall be constructed according to detail specification, and measured by number and paid separately. The depth of Manhole shall mean the vertical distance from the top of the Manhole cover to the Outgoing invert of the main drain channel.
- 7) Water meter shall include "Y" strainer and other appurtenances required by the local bodies and shall include brick masonry chamber, with lockable cover etc., as per detailed specifications and items shall be measured by number and paid for accordingly or as or Schedule of Quantity.

Employer / Architect Signature.

Contractor's Signature.