

LOCAL HEAD OFFICE, PREMISES & ESTATE DEPARTMENT 3rd FLOOR, C-6, G- BLOCK, SYNERGY BUILDING, BANDRA-KURLA COMPLEX, BANDRA (EAST), MUMBAI-400 051

TENDER DOCUMENT FOR PROPOSED ELECTRICAL WORKS OF

SBI SME GIRGAON BRANCH

TENDER ID: MUM20240803

THROUGH E-TENDERING PROCESS

FROM EMPANELLED CONTRACTORS OF SBI, LHO, MUMBAI METRO IN APPROPRIATE CATEGORY IS ONLY ELIGIBLE TO APPLY (PROOF OF EMPANELMENT SHOULD BE SUBMITTED)

Note: Firm should possess valid digital signature for this e-tender.

PART – A: TECHNICAL BID

Architect :

ARCHITECTS APPROACH, SHRIDHAR, 20, HANUMAN ROAD, VILE PARLE (EAST), MUMBAI-400 057 TEL NO. 022-35113986, 022-35113988 E-MAIL: arch_apro@yahoo.com, architectsapproach@gmail.com

SIGNATURE WITH SEAL

Page 1 of 71

NOTICE INVITING TENDERS

TENDER FOR PROPOSED ELECTRICAL WORKS FOR STATE BANK OF INDIA, SME GIRGAON BRANCH.

SBI invites "online item rate E-tender" for the captioned work in two bid system from all the Empaneled electrical Contractors with SBI only under appropriate category (10 Lakh and above) for the captioned work.

SN	Particulars	Details
1	Name of work	Proposed Electrical works for State Bank of India, SME Girgaon Branch Mumbai.
2	Nature of Work	Electrical & Allied Works
3	Time allowed for completion	90 Days (3 months)
4	Cost of Tender document cum Tender Processing Fee (Non- refundable)	Nil
5	Earnest Money Deposit	Rs. 13,000/- (Rupees Thirteen 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 Assistant General Manager (Premises & Estate Department), State Bank of India, LHO, payable at Mumbai. Concession as per MSME Act will be extended to eligible bidders.
6	Initial Security Deposit (ISD)	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.
7	Tender documents available for download from the websites:	 1) https://www.sbi.co.in under "SBI in the News" link "procurement news" 2) <u>https://etender.sbi/SBI/</u>
8	Availability for download from the above web sites	From 23.08.2024 to 05.09.2024
9	Last date and time for submission of online bids in e- tender portal (Technical & Price Bid)	05.09.2024 at 3.00 P.M. at Service Provider's portal <u>https://etender.sbi/SBI/</u>
10	Date and Time of opening of e-Tenders: Technical Bid	05.09.2024 at 3.30 P.M.

11	Last date, time & Address for submission of EMD (in original)	05.09.2024 up to 03:30 PM Original EMD should be submitted (before due date and time) physically at the following office: The Assistant General Manager, premises & Estate department, State Bank of India, Mumbai Metro Local Head Office, 3rd Floor, Synergy, C-6, G-Block, Bandra Kurla Complex, Bandra (E), Mumbai E-Mail: <u>agmpe.lhomum@sbi.co.in</u>
		Technical Bid of those firms / contractors who do not submit online EMD shall be rejected.
12	Address for submission of EMD (in original).	To, The Assistant General Manager, premises & Estate department, State Bank of India, Mumbai Metro Local Head Office, 3rd Floor, Synergy, C-6, G-Block, Bandra Kurla Complex, Bandra (E), Mumbai.
13	Payment terms	i) No advance payment.ii) 100% payment after completion of the work subject to deductions as applicable.
14	Total Security Deposit	5 % of contract value which will be retained till the completion of the defects liability period
15	Additional security Deposit	In case L-1 bidder quotes abnormally low rates (i.e. 7.5% or more, below estimated project cost), the bank may ask such bidder to deposit additional security deposit (ASD) equivalent to difference between 92.5% of estimated cost vis-à-vis L-1 quoted amount for due fulfillment of contract. Such ASD could be in the form of FDR / Bank's guarantee in the Bank's name as per format approved by the Bank. On successful completion of work ASD will be returned to the contractor. In case contractor fails to complete the work in time or as per tender specification or leave the job incomplete, the bank will be at liberty to recover the dues from ASD or to forfeit such ASD as the case may be within its sole discretion
16	Defects Liability period	12 Months from the date of completion or commissioning and handover of the work.
17	Liquidated Damages	0.50% per week subject to max. 5% of contract amount for delay in completion of work.
18	Validity of offer	90 days from the date of opening of Price-bid
19	Tax Deduction	As per applicable rates
20	Rates quoted by bidder	1. The quoted rate should be inclusive of Cost of materials, transport, loading , unloading charges, cost

		of installation, all taxes (excluding GST), wastages, machinery, temporary works such as scaffolding,
		cleaning, overheads, profit, statutory expenses,
		incidental charges and all related expenses required
		for the completion of the work. 2. Additional claims other than the quoted amount will
		not be entertained.
		3. The quoted rates shall be firm throughout the
21	Check list of documents to	completion of the project 1. Scanned copy of DD/BC of EMD
21	be uploaded at	2. Bidders are required to upload online the NIT (i.e.
	https://etender.sbi/SBI/	signed copy of entire document) in PDF as uploaded
		by bank. This will satisfy digital signing of the terms
		and condition of the tender by the bidder.
23	Value of Interim Certificate	Rs. 7 Lakhs.
		No advance on materials / plant / machinery or
		mobilization advance shall be paid under any circumstances
24	Any additional information	1. The make of materials should be chosen strictly from the preferred makes as given in the tender.
		2. Any clarifications sought after opening of the
		tenders will not be entertained at any cost.
		3. Firm should visit the website till last date of
		submission for changes/ corrigendum, if any 4. Bank reserves the right to cancel or postpone the
		tenders at any stage without assigning any reason.
		5. Claims for revision of the Quoted price by any
		bidder after the tender will not be entertained. 6. Representatives of Bidder may be present during
		opening of Bids. However Bids would be opened
		even in the absence of any or all the bidder's
25	e-Tender Service Provider C	representatives.
25		
	Primary Contact Numbers:- M:- 9081000427, 9510813528, 6354919566	
	1.Jaymeet Rathod: 9510813528, <u>jaymeet.rathod@eptl.in</u> 2.Nandan Valera: 9081000427, <u>nandan.v@eptl.in</u>	
	3. Hemangi Patel: 079-6813685	
		/

26. 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.

27. The SBI reserve their rights to accept or reject any or all the tenders, either in whole or in part without assigning any reason for doing so and any claim / correspondence shall be entertained in this regard.

28. Tenders received without EMD shall be summarily rejected

29. 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.

30. For any clarifications regarding E-Tendering procedure, System requirements etc. please contact M/s e-Procurement Technologies Limited, Ahmedabad, whose address is mentioned in the NIT.

Yours faithfully,

Assistant General Manager (P&E)

LETTER OF UNDERTAKING

The Assistant General Manager, Premises & Estate department, State Bank of India, Mumbai Metro, Local Head Office, 3rd Floor, Synergy, C-6, G-Block, Bandra Kurla Complex, Bandra (E), Mumbai.

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 Electrical Works For State Bank of India, SME Girgaon Branch Mumbai.
(b)	Earnest Money	Rs. 13,000/- (Rupees Thirteen 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 Assistant General Manager (Premises & Estate Department), State Bank of India, LHO, payable at Mumbai.
(c)	Time allowed for completion of the Works from fourteen day after the date of written Order or date of handing over of the site (Whichever is later) to commence the work	90 Days i.e. (3) months

- 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 SBI, the amount mentioned in the said contract.
- 2) I / We have deposited a sum of Rs. 13,000/- (Rupees Thirteen Thousand Only) of the total tender amount as Earnest Money with the SBI 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 SBI ,

3) I/ We have read and understood various clauses of this tender and hereby submit our specific undertaking and concurrence in terms clause 15 of "Instruction to tenderer" to deposit Additional Security Deposit (ASD) of required amount as provided for in this tender and within the stipulated period, in case, my/our tender is found too low (i.e. beyond 7.5% of the estimated cost), as a performance guarantee for due fulfilment of our contractual obligation for the project.

Further, under any circumstances, whatsoever, if I/We fail to comply the same including compliance of any such other conditions of tender within the stipulated time. I /We hereby, authorized SBI to cancel my/Our tender, to forfeit my EMD/ISD/ASD and to take further necessary action as deemed fit including debarring our firm from participating in SBI future tenders/de-paneling etc.

- 4) I/ We understand that as per terms of this tender, the SBI 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.
- 5) 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 currency of contract/execution/completion period including authorized extended contract period, if any.
- 6) We hereby undertake that our name does not appear in any "**Caution**" list of RBI / IBA or any other regulatory body.
- 7) We also confirm that we have not been **blacklisted by any Bank / PSU / State** or Central Govt. departments for any reasons.
- 8) We confirm that we do not have any **litigation / cases pending** against us in any Bank / PSU / State or Central Govt. departments.
- 9) We confirm that we are responsible to obtain all necessary licenses, permission, NOC from all the statutory /local authorities for the smooth execution of this contract in SBI premises.
- 10) We hereby confirm that all the materials/components/spare parts/equipment etc. to be supplied / used as a part of this contract shall be original / new materials / components / parts / equipment only, from respective OEMs of the products and that no refurbished / duplicate / second hand materials/components /parts/ equipment shall be supplied or shall be used.
- 11) For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Engineer-in-charge for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the Bank as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

- 12) We certify that we have not made any changes in the contents of the tender document read with its amendments/clarifications/ corrigendum provided by Bank, submitted by us in our Bid document.
 - 13) For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Engineer-in-charge for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the Bank as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

1)Our Bankers are:

i)

.

ii)

The names of partners of our firm are: i)

ii)

Name of the partner of the firm Authorised 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)

INSTRUCTIONS TO THE TENDERERS

SBI invites "online item rate E-tender" for the captioned work, through the service provider M/s E-Procurement Technologies Ltd. (Auction Tiger), from the empanelled contractors of SBI, LHO Mumbai Metro are only eligible to quote for this tender.

1.0 Scope of work

The scope of work is to carry out for the Proposed Electrical & Allied Works.

1.1 Site and its location

The proposed work is to be carried out at SBI SME GIRGAON BRANCH MUMBAI

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

Additional specifications

Drawings

Priced bid A

- 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) Drawings
 - d) Special conditions of contract
 - f) General conditions of contract
 - g) Instructions to Tenderers

2.3 The tender documents are not transferable.

2.4 Submission of BIDs/Tender Documents: Tenders should be submitted online in the website <u>https://etender.sbi</u> along with scanned copy of EMD, Signed copy of entire document and Empanelment letter. The tender document is not required to be sent to us in

hard copy. However, EMD is to be submitted to this office on or before last date of submission of tenders.

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 will be fully 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 **Rs. 13,000/-**(**Rupees Thirteen 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 **Assistant General Manager** (**P&E**), **State Bank of India, LHO, payable at Mumbai.**
- 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 **Assistant General Manager (P&E), State Bank of India, LHO, payable at Mumbai** within a period of 10 days of acceptance of tender.

No interest shall be paid to the amount retained by the SBI as Security Deposit.

6.0 Security Deposit

6.1 Total security deposit shall be 5% of contract value. Out of this 2% of contract value is 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 10% of the respective running account bill i.e., deduction from each running bill account will be @10% till Total Security Deposit (TSD) including ISD reaches to 5% of contract value. The 50% of the Total Security Deposit shall be paid to the contract on the

basis of Architect's certifying the virtual completion. The balance 50% would be paid to the contractors after the defects liability period as specified in the contract.

6.2 **Additional Security Deposit**

In case L-1 bidder quotes abnormally low rates (i.e. 7.5% or more, below estimated project cost), the bank may ask such bidder to deposit additional security deposit (ASD) equivalent to difference between 92.5% of estimated cost vis-à-vis L-1 quoted amount for due fulfillment of contract. Such ASD could be in the form of FDR / Bank's guarantee in the Bank's name as per format approved by the Bank. On successful completion of work ASD will be returned to the contractor. In case contractor fails to complete the work in time or as per tender specification or leave the job incomplete, the bank will be at liberty to recover the dues from ASD or to forfeit such ASD as the case may be within its sole discretion

6.3 No interest shall be paid to the amount retained by the Bank as Security Deposit.

7.0 Signing of contract Documents

The successful tenderer shall be bound to implement the contract by signing an agreement and conditions of contract attached herewith within 30 days from the receipt of intimation of acceptance of the tender by the Bank. 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.

8.0 **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.

9.0 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.

10.0 Liquidated Damages

The liquidated damages shall be 0.50% per week subject to a maximum of 5% of contract value.

11.0 **Rate and prices:**

11.1 In case of item rate tender

11.1.1 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. If no rate is quoted for one or more items such tender shall be treated as "Incomplete Tender" and shall be summarily rejected.

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.

- 11.1.2 The tenderers need not quote their rates for which no quantities have been given. In case the tenderers quote their rates for such items those rates will be ignored and will not be considered during execution.
- 11.1.3 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 would be paid accordingly.

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 Architect/ SBI

- 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 etc. except GST, which shall be payable / reimbursed at actuals.
- 11.1.7 The SBI 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 SBI to drop one or more items from the scope of work at any stage of the project, the contractor shall not be entitled to raise any claim / compensation for such deleted scope of work.

12.0 Assignment and subletting

The whole of work included in the contract shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share there of or interest therein without the written consent of the SBI through the Architect/Engineer and no undertaking shall relieve the contractor from the responsibility of the contractor from active & superintendence of the work during its progress.

13.0 **Quality of materials, workmanship & Test**

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Architect/consultant instructions and shall be subject from time to time to such tests as the architect/consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor 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 architect/consultant.

14.0 **Accident or Injury to workman:**

The SBI shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI 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, payable to the contractor the amount of any damages costs, charges, and other expenses paid by the SBI and which are payable by the contractors under this clause. The contractor 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 and the Contractor 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.

14.0 **Commencement of Works:**

The date of commencement of the work will be reckoned as the date, fifteen days from the date of award of letter by the SBI.

15.0 **Extension of time**

If, in the opinion of the Architect/consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor 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 shall apply to the SBI through the Architect' Consultant 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 an', for the delays. The architect/consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor 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 10.0 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.

SIGNATURE OF THE CONTRACTOR WITH SEAL

GENERAL CONDITIONS OF CONTRACT

1.0 **Definitions**: -

"Contract means the documents forming the tender and the acceptance thereof and the formal agreement executed between SBI (client) and the contractor, together

with the documents referred there in including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Architects/ 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.
- 1.1.2 'Site Engineer' shall mean an Engineer appointed by the SBI at site as their representative for day-to-day supervision of work and to give instructions to the contractors.
- 1.1.3 'The Contractor' shall mean the individual or firm or company whether incorporate not, undertaking the works and shall include legal personal representative of individual or the composing the firm or company and the permitted assignees of individual or firms of company.

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 hereunder and work to be done by the contractor under the contract.

- 1.1.4 'Engineer' shall mean the representative of the Architect/consultant.
- 1.1.5 'Drawings' shall mean the drawings prepared by the Architects and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time 'Contract value shall mean value of the entire work as stipulated in the letter of acceptance of tender subject such additions there to or deductions there from as may be made under the provide herein after contained.
- 1.1.6 Specifications' shall mean the specifications referred to in the tender and modifications thereof as may time to time be furnished or approved by the Architect/ Consultant.
- 1.1.7 "Month" means Gregorian calendar month.
- 1.1.8 "Week" means seven consecutive days.
- 1.1.9" Day" means a calendar day beginning and ending at 00Hrs. and 24Hrs. respectively.
- 1.1.10 SBI's Engineer" shall mean The Civil / Electrical Engineer in charge of the Project, as nominated by the AGM (P&E), SBI LHO Mumbai Metro Circle.

<u>CLAUSE</u>

1.11 <u>Total Security Deposit</u> Total Security deposit comprise of: Earnest Money Deposit Initial security deposit

Retention Money

a) Earnest Money Deposit (EMD):

The tenderer shall furnish EMD of **Rs. 13,000/- (Rupees Thirteen Thousand Only)** in the form of Demand draft or banker's cheque drawn in favour of **Assistant General Manager (P&E), State Bank of India, LHO, payable at Mumbai** on any Scheduled 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 SBI or after it is accepted by the SBI the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the commence the work within the stipulated time.

b) **Initial Security Deposit (ISD):**

The amount of ISD shall be 2% of accepted value of tender including the EMD in the form of DD/FDR drawn on any scheduled Bank and shall be deposited within 15 days from the date of acceptance of tender.

c) ADDITIONAL SECURITY DEPOSIT / PERFORMANCE GUARANTEE

In case L-1 bidder quotes abnormally low rates (i.e. 7.5% or more, below estimated project cost), the bank may ask such bidder to deposit additional security deposit (ASD) equivalent to difference of estimated cost vis-à-vis L-1 quoted amount for due fulfillment of contract as performance guarantee. Such ASD could be in the form of DD in favour of **Assistant General Manager (P&E), State Bank of India, LHO, payable at Mumbai.** On successful completion of work ASD will be returned to the contractor. In case contractor fails to complete the work in time or as per tender specification or leave the job incomplete, the bank will be at liberty to recover the dues from ASD or to forfeit such ASD as the case may be within its sole discretion. No interest shall be paid to the amount retained by the Bank as Security Deposit.

d) Retention Money:

Besides the SD as deposited by the contractor in the above said manner, the Retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. ISD plus EMD plus Retention Money shall both together not exceed 5% of the contract value. The 50% of the total security deposit shall be refunded to the contractor without any interest on issue of Virtual Completion certificate by the Architect/consultant. The balance 50% of the total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects, if any, in accordance with the conditions of contract including site clearance.

2.0 Language

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

3.0 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 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 Bank to be communicated through the Architect/consultant/ Bank's Engineer. The Architect/consultant at the directions of the SBI from time to time issue further drawings and / or write instructions, details directions and explanations which are here after collectively references to as Architect's /consultant's 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. The removal from the site of any material brought thereon by the Contractor 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 SBI shall issue a letter of acceptance directly or through the Architect by registered post or otherwise depositing at the of the contractor 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 SBI and the contractor.

ii) **Contract Agreement:**

On receipt of intimation of the acceptance of tender from the SBI/ Architect, the successful tenderer shall be bound to implement the contract and within fifteen 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 SBI through its Architect / consultants are the properties of the SBI They are not to be used on other work.

7.0 **Detailed drawings and instructions:**

The SBI through its Architects / consultants 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 prepare a detailed programme schedule indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI directly/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 contractors.

8.0 **Liquidated damages:**

If the contractor fails to maintain the required progress in terms of clause 6. 0 of GOC 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 SBI on account of such breach to pay a liquidated damage at the rate of 0.50% of the contract value which subject to a maximum of 5% of the contract value.

9.0 Materials, Appliances and Employees

Unless or otherwise specified the contractor 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 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 SBI /ARCHITECT/ consultant 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 at his own expenses. The contractor shall give notices and comply with the regulations, laws, and ordinances rules, applicable to the contract. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI in writing under intimation of the Architect/ Consultant. If the contractor performs any act, which is against the law, rules and regulations he

shall meet all the costs arising there from and shall indemnify the SBI for any legal actions arising there from.

11.0 **Setting out Work:**

The contractor 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 Architect / consultant 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, the Architect / consultant the contractor shall be responsible for the same ad shall his own expenses rectify such error, if so, required to satisfaction of the SBI.

12.0 **Protection of works and property:**

The contractor shall continuously maintain adequate protection. of all his work from damage and shall protect the SBI'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 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 shall take insurance covers as per clause 24.0 at his own cost. The policy may be taken in joint names of the contractor and the SBI and the original policy may be lodged with the SBI

13.0 **Inspection of work:**

The SBI / Architect / Consultant 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 shall give every facility to the SBI/Architect/consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBI/ Architect /Consultant 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 Chief Technical Examiner's Organization a wing of Central Vigilance commission.

14.0 Assignment and subletting

The whole of work included in the contract shall be executed the contractor and he shall not directly entrust and engage or indirectly transfer, assign or underlet the contract or any part or share there of or interest therein without the written consent of the SBI through the Architect and no undertaking shall relieve the contractor from the responsibility of the contractor 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 described in the contract and in accordance with Architect/consultant instructions and shall be subject from time to time to such tests as the Architect/consultant may direct at the place of manufacture or fabrication or on the site or an approved testing laboratory. The contractor 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 Architect/consultant.

ii) Samples

All samples of adequate numbers, size, shades & pattern as per specifications shall be supplied by the contractor 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 Bank/Architect/consultant. Before submitting the sample / literature the contractor shall satisfy himself that the material / equipment for which he is submitting the sample / literature meet with the requirement of tender specification. Only when the samples are approved in writing by the Bank/Architect / consultant the contractor shall proceed with the procurement and installation of the particular material / equipment. The approved samples shall be the signed by the Bank/Architect / Consultant for identification and shall be kept on record at site office until the completion of the work for inspection / comparison at any time. The Bank/Architect/Consultant 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 gualities 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.

iii) Cost of tests

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

iv) Costs of tests not provided for

If any test is ordered by the Bank/Architect/ Consultant which is either

a) If so intended by or provided for or (in the cases above mentioned) is not so particularized, or though so intended or provided for but ordered by the Architect / Consultant to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested or any Government / approved laboratory, then the cost of such test shall be borne by the contractor.

16.0 **Obtaining information related to execution of work**

No claim by the contractor 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's superintendence**

The contractor shall give necessary personal superintendence during the execution the works and as long, thereafter, as the Bank/Architect / Consultant may consider necessary until the expiry of the defects liability period, stated here to.

18.0 **Quantities**

i) 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. The entire amount paid under Clause 19, 20 hereof as well as amounts of prime cost and provision sums, if any, shall be excluded.

19.0 Works to be measured

The Bank/Architect/Consultant may from time to time intimate to the contractor that he requires the work to be measured and the contractor shall forthwith attend or send a representative to assist the Bank/Architect 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 the Bank/Architect / Consultant shall take measurements with the contractor's representative and the measurements shall be entered in the measurement book. The contractor 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 (M.B.) Should the contractor not attend or neglect or omit to depute his representative to take measurements, the measurements recorded by the representative of the Bank/Architect / consultant 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 the Bank/Architect / consultant vitiates the contract. In case the SBI / Architect / Consultant thinks proper at any 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 Bank/Architect / Consultant shall give notice thereof in writing to the contractor 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 but the contractor 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 Bank/Architect/ Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Architect / Consultant 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 shall be allowed unless it shall have been executed under the authority of the Bank/Architect / Consultant with the concurrence of the SBI 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 shall within 7 days of the receipt of the letter of acceptance inform the Architect/ consultant 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 Architect/ consultant shall fix such rate or prices as in the circumstances in his opinion are reasonable and proper, based on the market rate.
- d) Where extra work cannot be properly measured or valued the contractor 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 Architect/Consultant) 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 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'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 two 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 SBI, the contractor shall ensure that the following works have been completed the satisfaction of the SBI:

- 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 SBI not incorporated in the permanent works.
- c) Remove all rubbish, debris etc. from the site and the land allotted to the contractor the SBI and shall clear, level and dress, compact the site as required by the SBI.
- d) Shall put the SBI in undisputed custody and possession of the site and all land allot by the SBI.
- e) Shall hand over the work in a peaceful manner to the SBI
- f) All defects / imperfections have been attended and rectified as pointed out by the Architects to the full satisfaction of SBI.

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 SBI'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 SBI against the contractor in respect of or work at the site and in respect of which the VCC has been issued.

24.0 Work by other agencies

The SBI / Architect / consultant reserves the rights to use premises and any portion the site for execution of any work not included in the scope of this contract which it may desire to have carried out by other persons simultaneously and the contractor shall not only allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manner as not to impede the progress of the works included in the contract.

25.0 **Insurance of works**

25.1 Without limiting his obligations and responsibilities under the contract the contractor shall insure in the joint names of the SBI and the contractor 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 SBI and contractor are covered for the period stipulated vide clause 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 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) The constructional plant and other things brought on to the site by the contractor to the replacement value of such constructional plant and other things.
- c) Such insurance shall be affected with an insurer and in terms approved by the SBI which approval shall not be unreasonably withheld and the contractor shall whenever require produce to the Architect / consultant the policy if insurance and the receipts for payment of the current premiums.

25.2 **Damage to persons and property**

The contractor shall, except if and so far as the contract provides otherwise indemnify the SBI 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 SBI 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 SBI their agents, employees or other contractors not being employed by the contractor 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, 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 SBI, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

25.3 **Contractor to indemnify SBI**

The contractor shall indemnify the SBI against all claims, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision sub-clause 25.2 of this clause.

25.4 **Contractor's superintendence**

The contractor shall fully indemnify and keep indemnified the SBI 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 SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor 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 shall not be liable to indemnify the SBI 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 Architect / consultant in this behalf.

25.5 **Third Party Insurance**

25.5.1 Before commencing the execution of the work the contractor 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 SBI, or to any person, including any employee of the SBI, by or arising out of the 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.

25.5.2 Minimum amount of Third-Party Insurance

Such insurance shall be affected with an insurer and in terms approved by the SBI which approval shall not be reasonably withheld and for at least the amount stated below. The contractor shall, whenever required, produce to the. Architect / consultant the policy or policies of insurance cover and receipts for payment of the current premiums.

25.6 The minimum insurance cover for physical property, injury, and death is ₹5 Lakh per occurrence with the number of occurrences limited to four. After each occurrence contractor will pay additional premium necessary to make insurance valid for four occurrences always.

25.7 Accident or Injury to workman:

25.7.1 The SBI shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the SBI or their agents, or employees. The contractor shall indemnify and keep indemnified SBI 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.

25.7.2 Insurance against accidents etc. to workmen

The contractor shall insure against such liability with an insurer approved by the SBI 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 the contractor's obligation to

insured as aforesaid under this sub-clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that SBI is indemnified under the policy but the contractor shall require such subcontractor to produce to the Architect /consultant when such policy of insurance and the receipt for the payment of the current premium.

25.7.3 Remedy on contractor's failure to insure

If the contractor 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 SBI may effect 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 SBI as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

25.7.4 Without prejudice to the others rights of the SBI against contractors. In respect of such default, the employer shall be entitled to deduct from any sums payable to the contractor the amount of any damages costs, charges, and other expenses paid by the SBI and which are payable by the contractors under this clause. The contractor 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 and the Contractor 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.

26.0 **Commencement of Works**:

The date of commencement of the work will be reckoned as the date, seven days from the date of award of letter by the SBI.

27.0 **Time for completion**

Time is essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period of <u>90 Days (3 months)</u> from the date of commencement. If required in the contract or as directed by the Bank/Architect / consultant. The contractor shall complete certain portions of work before completion of the entire work. However, the completion date shall be reckoned as the date by which the whole work is completed as per the terms of the contract.

28.0 **Extension of time**

If, in the opinion of the Bank/Architect/consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor 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 shall apply to the SBI directly/ through the Architect' Consultant 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. The Architect/consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time.

While granting extension of time the contractor 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 10.0 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.

29.0 **Rate of progress**

Whole of the materials, plant and labour to be provided by the contractor 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 Bank/Architect / consultant should the rate of progress of the work or any part thereof be at any time be in the opinion the Bank/ Architect / consultant too Slow to ensure the completion of the whole of the work the prescribed time or extended time for completion the Bank/ Architect / consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Bank/Architect / consultant to expedite progress so as to complete the works by the prescribed time or extended time. Such communications from the Bank/Architect / consultant to raise any claims arising out of such directions.

30.0 Work during nights and holidays

Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the Bank/Architect / consultant, save 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 shall immediately advise the Bank/ Architect / consultant. 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 Architect / consultant at no extra cost to the SBI

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

31.0 No compensation or restrictions of work

If at any time after acceptance of the tender SBI 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. The Architect / consultant shall give notice in writing that effect to the contractor and the contractor shall act accordingly in the matter. The contractor shall have no claim to any payment of compensation or otherwise what so ever 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 contractor shall be paid the charges on the cartage only of materials actually and bona-fide brought to the site of the work by the contractor and rendered surplus as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the Architect / Consultant 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 SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of Architect / consultant shall be final.

32.0 Suspension of work

- i) The contractor shall, on receipt of the order in writing of the Bank/Architect / consultant (whose decision shall be final and binding on the contractor) suspend the progress of works or any part thereof for such time and in such manner as Bank/Architect /consultant 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, or
- b) For proper execution of the works or part thereof for reasons other than the default the contractor, or
- c) For safety of the works or part thereof.

The contractor shall, during such suspension, properly protect and secure the works the extent necessary and carry out the instructions given in that behalf by the Bank/Architect / consultant.

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

33 Action when the whole security deposit is forfeited

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

- a) To rescind the contract (of which rescission notice in writing to the contractor by -Architect / consultant shall be conclusive evidence) and in which case the security, deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI
- b) To employ labour paid by the SBI and to supply materials to carry out the work, or part of the work, debiting the contractor with the cost of the labour and materials cost of such labour and materials as worked out by the Architect/consultant shall final and conclusive against the contractor) 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 under the terms of this contract certificate of Architect /consultant as to the value of work done shall be final conclusive against the contractor.

c) To measure up the work of the contractor, and to take such part thereof as shall unexecuted, out of his hands, and to give it to another contractor 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, if the whole work had been executed by him (The amount of which excess the certificates in writing of the Architects / consultant shall final and conclusive) shall be borne by original contractor and may be deducted f any money due to him by SBI 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 SBI the contractor 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 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 the Architect / consultant 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.

34.0 **Owner's right to terminate the contract**

If the contractor 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 Architect / Consultant that he is able to carry out and fulfill the contract, and to dye security therefore if so required by the Architect / Consultant or if the contractor (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.

Or shall assign or sublet this contract without the consent in writing of the SBI through the Architect/Consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor 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 SBI through the Architect / consultant 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 SBI through the Architect / Consultant that the said materials were condemned and rejected by the Architect/consultant 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 contactor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to the detriment of good workmanship or in defiance of the SBI or Architect's / consultant's

instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI and or the Architect / consultant, may not withstanding any previous waiver, after giving seven days' notice in writing to the contractor, determine the contract, but without thereby affecting the powers of the SBI or the Architect / consultant or the obligation and liabilities of the contractor 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. And, further the SBI through the Architect / consultant their agents or 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 contractors or persons to the work and the contractor shall not in any was interrupt or do any act, matter or thing to prevent or hinder such other contractor 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 the SBI or Architect / consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receive thereof by him the SBI sell the same by publication, and after due publication, and shall, adjust the amount realized by such auction. The contractor shall have no right to question any of the act of the SBI incidental to the sale of the materials etc.

35.0 **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 SBI from time to time. The SBI 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 SBI 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 Book (M. B.)

The Contractor shall not submit interim bills when the approximate value of work done by him is less than **Rs. 7.00 Lakhs.**

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 SBI 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.

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

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

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

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

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

If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to The Assistant General Manager (Premises & Estate Dept.), State Bank of India, Local Head Office, 'Synergy', 3rd Floor, Bandra Kurla Complex, Mumbai- 400 051. And endorse a copy of the same to the Architect, within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the SBI be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to The Assistant General Manager (Premises & Estate Dept.) Local Head Office, Mumbai in the manner and within the time as aforesaid. The Contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to The Assistant General Manager (Premises & Dept.) Local Head Office in writing in the manner and within the time aforesaid.

B. Settlement of Disputes and Arbitration

The Assistant General Manager (Premises & Dept.) Local Head Office, Mumbai shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of The Assistant General Manager (Premises & Dept.) Local Head Office, Mumbai submits his claims to the conciliating authority namely the General Manager /Deputy General Manager (Premises & Estate Dept.) Local Head Office, Mumbai for conciliation along with all details and copies of

correspondence exchanged between him and the Assistant General Manager (Premises & Estate Dept.) Local Head Office, Mumbai.

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

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

It is also a term of this contract that no person other than a person appointed by such Deputy Managing Director & CDO as aforesaid should act as arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any or any accordance modification or reenactment thereof and the rules made there under.

It is also a term of the contract that if any fees are payable to the Arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank Officer.

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

37.0 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.
- 37.1 The contractor shall construct temporary well / tube well in SBI and for taking water for construction purposes only after obtaining permission in writing from the SBI. 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 SBI without any compensation as directed by the Architect / consultant.
- 37.2 If the contractor makes use of Bank's water connection or power connection (after obtaining due permission, an amount of 0.25% of the tendered amount/amount of final bill , whichever is higher will be deducted.

38.0 **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.

39.0 **Treasure Trove etc.**

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

40.0 **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 Bank/Architect / consultant shall be final and binding on the contractor.

41.0 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 SBI/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

42.0 Force Majeure

42.1 Neither contractor nor SBI 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, if it is not possible to serve a notice, within the shortest possible period without delay.

- 42.2 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.
- 42.3 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.
- 42.4 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 wore the two parties, shall each other to decide regarding the future execution of this agreement.

43.0 Local laws, Acts Regulations:

The contractor shall strictly adhere to all prevailing labour laws inclusive at contract labour (regulation and abolition act of 1970) and other safety regulations. The contractors 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.

- i) Minimum wages Act 1948 (Amended)
- ii) Payment of wages Act 1936 (Amended)
- iii) Workmen's compensation Act 1923 (Amended)
- iv) Contract labour regulation and abolition act 1970 and central rules 1971 (Amended)
- v) Apprentice act 1961 (amended)
- vi) Industrial employment (standing order) Act 1946 (Amended)
- vii) Personal injuries (Compensation insurance) act 1 963 and any other modifications
- viii) Employees' provident fund and miscellaneous provisions Act 1952 and amendment thereof
- ix) Shop and establishment act
- x) Any other act or enactment relating thereto and rules framed there under from time to time.
- xi) Prevailing Indian Electricity rules & act.

44.0 Accidents

The contractor 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 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.

45. 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

A subsidiary of an entity incorporated, established or registered in such a country; or
 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.

<u>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</u>

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

Scope of work

1.0 The scope of work is to carry out for the Proposed Electrical & Allied Works.

2.0 Address of site

The site is located at SBI SME GIRGAON BRANCH MUMBAI

3.0 **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 SBI as applicable.**

4.0 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.

5.0 **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.

4.0 **Notice of operation**

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

5.0 **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.

6.0 **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.

7.0 **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.

8.0 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 SBI 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 as instructed.
- c) The contractors for other trades directly appointed by the SBI 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 contactor and the SBI will reimburse the amount on production of receipts
- d) The SBI 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
- e) If the contractor makes use of Bank's water connection or power connection (after obtaining due permission, an amount of 0.25% of the tendered amount/amount of final bill, whichever is higher will be deducted.

9.0 **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.

10.0 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.

11.0 **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 tire fighting equipment.
 - f) General house keeping

12.0 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 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.

13.0 **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 I 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.

14.0 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 he held if required by the Architect/ consultant. -

15.0 **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 of.

16.0 **Contractor to verify site measurement**

The contractor shall check and verify all site measurements whenever requested other specialist 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.

17.0 **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.

18.0 **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 SBI / 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 SBI / 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.

19.0 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.

20.0 **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

21.0 Excise Duty, Taxes, Leveis 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 SBI 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 amount 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.

22.0 Acceptance of tender

The SBI 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 SBI . However adequate transparency would be maintained by the SBI

23.0 **Photographs:**

- The Contractor shall at his own expense supply to the Bank/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/ SBI may consider returning the Bill to the contractor and no claim for delay on this account will be entertained.

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.
- (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 form defects.

ARTICLES OF AGREEMENT

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

ARTICLES OF AGRE of India, having its				between Stanployer" of the One	
WHEREAS	the	SBI.	is	desirous	- of

and has caused specifications describing the work to be done to be prepared by SBI.

AND WHEREAS the said Drawings numbered ______ to_____ 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:

- 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 the SBI, 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 disregard or overrule any previous decisions or approval or direction given or expressed in writing by the outgoing Architects for the time being.

- 4) 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.
- 5) The Plans, Agreements and Documents mentioned herein shall form the basis of this Contract.
- 6) 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.
- 7) 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 airconditioning 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.
- 8) The SBI 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.
- 9) 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.
- 10) All payments by the SBI under this Contract will be made only at Mumbai.
- 11) All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Mumbai and only the Courts in Mumbai shall have jurisdiction to determine the same.
- 12) That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

IN WITNESS WHEREOF THE SBI 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) In the presence of:	(Signature of Contractors)
Shri / Smt	(Signature of Witness)
Address	
(Witness)	

(A) <u>Contact Information</u>

E-Procurement Technologies Ltd.	State Bank of India
B-704, Wall Street - II, Opp. Orient Club, Nr. Gujarat College, Ahemdabad - 380 006. Gujarat State, India	The Assistant General Manager, Premises & Estate Department, Local Head Office, SYNERGY, Mumbai Metro Circle,3 RD Floor,C-6, G-Block, BandraKurla Complex, Bandra East, Mumbai- 400 051.
Tel.: +91 79 61200 579 580 567 569 566 Ms. Kushboo Mehta	Officer Name : R.K. Sinha Department : Deputy Manager (Ele) Contact No : 022-6751 5645 E-mail : <u>ramkishan.sinha@sbi.co.in</u>
E-mail :kushboo.mehta@eptl.in Contact No : 9510813528 /	ARCHITECT ARCHITECTS APPROACH,

9081000427	SHRIDHAR, 20, HANUMAN ROAD, VILE PARLE (EAST), MUMBAI-400 057 TEL NO. 022-35113986, 022-35113988 E-MAIL: arch_apro@yahoo.com, architectsapproach@gmail.com

(B)SAMPLE BUISNESS RULE DOCUMENT

ONLINE E-TENDERING FOR PROPOSED ELECTRICAL & ALLIED WORKS FOR STATE BANK OF INDIA, RACPC KALYAN AT KALAYAN(W), DISTRICT- THANE.

(a) Business rules for E-tendering:

- 1. Only empaneled contractors with SBI under appropriate category who are invited by the project Architect/SBI shall only be eligible to participate.
- 2. SBI will engage the services of an e-tendering service provider who will provide necessary training and assistance before commencement of online bidding on Internet.
- 3. In case of e-tendering, SBI will inform the vendor in writing, the details of service provider to enable them to contact and get trained.
- 4. Business rules like event date, closing and opening time etc. also will be communicated through service provider for compliance.
- 5. Contractors have to send by email, the compliance form in the prescribed format (provided by service provider), before start of E-tendering. Without this the vendor will not be eligible to participate in the event.
- 6. The Contractors will be required to submit the various documents in sealed Envelope to the office of SBI .at the address mentioned hereinbefore by the stipulated date i.e. (1) Hard Copy of Technical Bid duly signed and stamped on each page to be submit online (2) Demand Draft of specified amount of EMD Hard copy. Contractors not submitting any one or more documents shall not be eligible to participate in the online price bidding.

7. E-tendering will be conducted on schedule date & time.

8. <u>The e-tendering will be treated as closed only when the bidding process</u> <u>gets closed in all respects for the item listed in the tender.</u>

(b) Terms & conditions of E-tendering:

SBI shall finalize the Tender through e-tendering mode for which M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL). has been engaged by SBI an authorized service provider. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

- 1. E-tendering shall be conducted by SBI through M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL)., on pre-specified date. While the Contractors shall be quoting from their own offices/ place of their choice, Internet connectivity and other paraphernalia requirements shall have to be ensured by Contractors themselves. In the event of failure of their Internet connectivity, (due to any reason whatsoever it may be) it is the bidders' responsibility. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements/ alternatives such as back-up power supply whatever required so that they are able to circumvent such situation and still be able to participate in the E-tendering successfully. Failure of power at the premises of Contractors during the E-tendering cannot be the cause for not participating in the E-tendering. On account of this the time for the E-tendering cannot be extended and SBI is not responsible for such eventualities.
- 2. M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL)., shall arrange to train your nominated person(s), without any cost to you. They shall also explain you all the Rules related to the E-tendering. You are required to give your compliance on it before start of bid process.
- 3. BIDDING CURRENCY AND UNIT OF MEASUREMENT: Bidding will be conducted in Indian currency & Unit of Measurement will be displayed in Online E-tendering.
- 4. BID PRICE: The Bidder has to quote the rate as per the Tender Document provided by SBI their appointed Architects.
- 5. VALIDITY OF BIDS: The Bid price shall be firm for a period specified in the tender document and shall not be subjected to any change whatsoever.
- 6. Procedure of E-tendering:

i.

Online E-tendering:

- (a) The NIT &Technical bid available on the e-tender's service provider website during the period specified in the NIT.
- (b) Online e-tendering is open to the empaneled bidders who receive NIT from the Architect and qualified for participating in the price bidding as provisions mentioned hereinabove through SBI approved Service Provider.
- (c)The Price-Bid shall be made available online by the Service Provider wherein the contractors will be required to fill-in their Item-wise rates for each item.
- (d) The Contractors are advised not to wait till the last minute to submit their online item-wise quote in the price bid to avoid complications related with

internet connectivity, network problems, system crash down, power failure, etc.

- (e) It is mandatory to all the bidders participating in the price bid to quote their rates for each and every item.
- (f) In case, contractor fails to quote their rates for any one or more tender items, their tender shall be treated as "*Incomplete Tender*" and shall be liable for rejection.
- 7. LOG IN NAME & PASSWORD: Each Bidder is assigned a Unique User Name & Password by M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL). The Bidders are requested to change the Password after the receipt of initial Password from M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL). All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.
- 8. BIDS PLACED BY BIDDER: Bids will be taken as an offer to execute the work as specified. Bids once made, cannot be cancelled / withdrawn and the Bidder shall be bound to execute the work at the quoted bid price. In case the L-1 Bidder backs out or fail to complete the work as per the rates quoted, SBI shall at liberty to take action as deemed necessary including de-paneling such contractors and forfeiting their EMD.
- 9. At the end of the E-tendering, SBI will decide upon the winner. SBI decision on award of Contract shall be final and binding on all the Bidders.
- 10. SBI shall be at liberty to cancel the E-tendering process / tender at any time, before ordering, without assigning any reason.
- 11. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
- 12. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.
- 13. OTHER TERMS & CONDITIONS:
 - The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidder.
 - The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party.
 - SBI decision on award of Contract shall be final and binding on all the Bidder.
 - SBI reserve their rights to extend, reschedule or cancel any E-tendering within its sole discretion.
 - SBI or its authorized service provider M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL) shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.

- SBI or its authorized service provider/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL) is not responsible for any damages, including damages that result from, but are not limited to negligence.
- SBI or its authorized service M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL) will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

<u>N.B.</u>

- All the Bidders are required to submit the Process Compliance Statement (Annexure II) duly signed to M/s. E-Procurement Technologies Ltd, Ahmedabad (EPTL).
- All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event.

SIGNATURE OF THE CONTRACTOR WITH SEAL

(C) Process Compliance Statement (Annexure II)

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

To, E-Procurement Technologies Ltd. (Auction Tiger) B-704 Wall Street - II, Opp. Orient Club, Nr. Gujarat College, Ahmedabad - 380 006. Gujarat State, India

TENDER FOR PROPOSED ELECTRICAL & ALLIED WORKS FOR STATE BANK OF SME GIRGAON BRANCH, MUMBAI.

<u>Dear Sir,</u>

This has reference to the Terms & Conditions for the Reverse Auction mentioned in the Tender document

This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied the Commercial Terms and the Business rules governing the e-Tendering as mentioned in RFP of SBI as well as this document and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the auction tool and have understood the functionality of the same thoroughly.
- 4) We confirm that SBI and ETL shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-auction platform due to loss

of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the tendering event.

5) <u>We also confirm that we have a valid digital signature certificate issued by</u> <u>a valid Certifying Authority.</u>

- 6) We also confirm that we will mail the price confirmation / break up of our quoted price as per Annexure III & Annexure IV within 24 hours of the completion of the bid/ reverse auction and the format as requested by SBI/ETL.
- 7) We, hereby confirm that we will honor the Bids placed by us during the E-tendering/ auction process.

With regards, Date: Signature with company seal Name: Company / Organization: Designation within Company / Organization: Address of Company / Organization: **Scan it and send to this Document on** <u>samjad@procuretiger.com</u>

APPENDIX HEREINBEFORE REFERRED TO

1) Name of the organization Offering Contract	:	The Asst. General Manager (Premises & Estate Dept), State Bank of India, Local Head Office, 'Synergy', 3 rd floor, G. Block, Bandra Kurla Complex, Bandra (E), Mumbai- 400 051.
2) Consultants	:	NA.
3) Site Address	:	State Bank of India, SME Girgaon Branch
4) Scope of Work	:	Electrical & Allied Works
5)		Name of the Contractor:
6) Address of the Contractor	:	
7) Period of Completion	:	90 days (3 months) from the date of Commencement
8) Earnest Money Deposit:		Rs. 13,000/- (Rupees Thirteen Thousand
SIGNATURE WITH SEAL		Page 49 of 71

		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 AGM, State Bank of India, Local Head Office payable at Mumbai.
9)Retention Money	:	As per clause no. 1.11 of general Conditions
10)Defects Liability Period	:	12 Months from the date of Virtual Completion .
11)Insurance to be undertaken by t Contractor at his cost	the:	125% of Contract Value (Contractor's all risk policy)
12) 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.
13) Value of Interim Bill (Min.)		: Rs. 7.00 Lakhs.
14) 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.
15) Period of Final Measurement	:	1 Months from the date of Virtual Completion.
16) Initial Security Deposit (Clause No. 22)	:	2% of the Accepted Value of the Tender.
17) Total Security Deposit	:	As per clause No. 6.of instruction of tender.
18) Refund of initial Security Deposition Comprising of EMD and ISD.	sit :	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.
19) Period for Honoring Certificate	:	 One Month for R.A. Bills 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.	Proforma for Register of Material of Site Account.	
2.	Proforma for Account of Secured Advance Register.	
3.	Proforma for Running A/c. Bill.	
4.	Account of Secured Advance if Admissible on Materials Held at Site by the Contractors	
5.	Memorandum for Payment.	
		TABLE-

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-II

PROFORMA FOR REGISTER OF MATERIAL AT SITE ACCOUNT

Name of Work :

Name of Contractor :

Agreement No. :

ripti of rial	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 Contractor	Initial of Bank's/ Architect's representative	Rer
	2	3	4	5	6	7	

TABLE-III

PROFORMA FOR RUNNING A/C BILL

:

:

:

:

:

- i. Name of Contractor / Agency
- ii. Name of Work
- iii. Sl.No. of this Bill
- iv. No. & Date of previous Bill
- v. Reference to Agreement No.
- vi. Date of Written order to commence
- vii. Date of Completion as per Agreement

S.No.	Item Description	Unit	Rate (₹)	As p	ber Tender
				Quantity	Amount (₹)
1	2	3	4		5

Upto Previous R.A. Bill Up Date		e (Gross Present Bill		nt Bill	Remarks	
Quantity	Amount	Quantity	Amount	Quantity	Amount	
	(₹)		(₹)		(₹)	
6	5	7	7	8	3	9

Note: 1. If part rate is allowed forany items, it should be indicated with reasons for allowing such a rate.

Net Value since previous bill

2. If ad-hoc payment is made, it should be mentioned specifically.

CERTIFICATE

The measurements on the basis of which the above entries for the Running Bill No
were made have been taken jointly on were made have been taken jointly on
recorded at pages to to of measurement book No.

Signature and
date of ContractorSignature and
date of Architects
Representative (Seal)Signature and
date of Site Engineer

The work recorded in the above-mentioned measurements has been done at the site satisfactorily as per tender drawings, conditions and specifications.

Architect

Signature and date of Site Engineer

TABLE - IV

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 -

В

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 - V

MEMORANDUM FOR PAYMENT

R/A BILL NO.

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

OBJECTIONS:

- i) Secured Advance paid in the previous R/A
- Retention money on value of works as per accepted tenders upto date amount ₹

Less already recovered

Balance to be recovered

- iii) Mobilization Advance, if any
- (a) Outstanding amount (principal + interest) as on date
- (b) To be recovered in this bill
- iii. Any other Departmental materials cost to be recovered as per contract, if any
- iv. Any other Departmental service charges to be recovered if any, as per contract (water, power etc.) enclose statement.

Total Deduction as per contract (F)

₹		
₹		
₹		
₹		
₹		
	र र 	

SIGNATURE WITH SEAL

Page 56 of 71

₹ -----

	Adjustments, if any Amount less received by Contractor in R/A Bill (as per statement of Contractor)	₹
	P.V.A.	₹
	Total amount payable as per contract (E+F+G)	₹
	(Rupees in words)	
	ill amount to ₹ (both figures due checking of the measurements of workent.	
Date:		
due te	ill amount to ₹ certified by Cons est checking of measurements of works as rec amount of ₹	
Date :		Signature of Owners Engineer
	STATUTORY DEDUCTION:	
i)	Total Amount due (E)	₹
ii)	Less I.T. Payable	₹
iii)	Less S.T. Payable	₹
	Net Payable	₹
These	figures given in the Memorandum for payab	le has been verified and bill passed for

payment ------ (in words and figures)

Date: -----

Deputy General Manager(Premises)

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.

TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORK GENERAL:

These specifications are for work to be done, item to be supplied and materials to be used in the works as shown and denned on the drawings and described herein, to the satisfaction of the Owners / Architects.

1.1 The workmanship is to be the best possible and of a high standard. The contractor shall take all steps immediately to make up deficiency if any noticed by the Owners / Architects. Use must be made of special tradesmen in all aspects of the work and allowance must be made in the rates for the same.

1.2 The materials to be provided by the contractor shall be in accordance with the samples already got approved from the Owners / Architects by the contractor and in conformity with specification and approved list of manufacturers and brand. The contractor shall produce all invoices, vouchers or receipts for any material if called upon to do so by the Owners / Architects.

1.3 Samples of all materials are to be submitted to the Owners / Architect for their approval before the contractor orders or delivers the material to the site. Samples together with their packing are to be provided free of charge by the contractor and should any materials be rejected they will be removed from the site at the contactors expense. All samples will be retained by the Owners / Architects for comparison with materials which will be delivered at site. Also, the contractor will be required to submit specimen finishes of colours, fabrics, etc., for the approval of the Owners / Architects before proceeding with the work.

1.4 The contractor shall be responsible for providing and maintaining temporary coverages required for the protection of finished work. He is also to clean out all wood shavings, cut ends and other waste from all parts of the works before covering or infilling are constructed.

1.5 Contractor shall maintain unformed quality and consistency in workmanship throughout the execution of the work.

TECHNICAL SPECIFICATIONS (Electrical – part I)

The Electrical installation work shall confirm to the following I.S. Standards (latest additions), Local Supply Authorities Rules and Regulations and Fire Safety Norms.

- 1) IS:732 Code of Practice for Electrical wiring installation. (System Voltage not exceeding 650V)
- 2) IS:1646 Code of Practice for fire safety of buildings (General Electrical Installation).
- 3) IS:9537 (PART-II) 1981Rigid steel conduits for electrical wiring.
- 4) IS:2667 Fittings for rigid steel conduits for electrical fittings.

- 5) IS:2509 Rigid non-metallic conduits for electrical installations.
- 6) IS:1293 Pin Plugs and Sockets.
- 7) IS:694 PVC insulated cables with copper conductors for voltages up to 1100 volts.
- 8) IS:9532 Specification for conduits for Electrical Installation.
- 9) IS:3854 5A & 15A Switch socket and accessories.
- 10) IS:3043 (1981) Earthing.
- 11) IS:2026 Specification for power transformer.
- 12) IS:3639 Specification for fittings and accessories for power transformers.
- 13) IS:2099 Specification for high voltage porcelain bushings.
- 14) IS:335 Specification for insulating oil.
- 15) Indian Electricity Act, 1956 and Rules and Fire Insurance Regulations.

A-01. POINT WIRING

a) METAL CONDUITS

b) PVC CONDUITS

The PVC Conduits shall confirm to latest IS standards and shall be of heavy gauge unless otherwise specified. The conduits shall be joined with PVC adhesive at Joints. The Conduits shall be fixed to walls/ceilings with GI spacers and saddles at an interval of 45 cms& on either side of bends, junction boxes, pull boxes etc., The number of wires drawn in the conduits shall be as per table 1. The point wiring shall be controlled as in (a) above. The wiring shall be done with 2 nos. of 1.5 sq.mm. (for Phase & Neutral) &1.5sq.mm. (for earth) PVC insulated, copper conductors, multi stranded and colour coded with green as earth and black for neutral.

The circuit main wiring shall be with 3 nos. of 2.5 sq.mm. PVC insulated, copper conductors, multi stranded wires laid from distribution board to switch board and the rate shall be included in the point wiring unless otherwise stated in the schedule of quantities. All other details shall be as per metal conduits.

C) CASING CAPPING/ TRUNK AND TRUNKLING

PVC casing shall be fixed to wooden partitions by means of screws spaced not more than 45 cms apart. Holes for fixing the PVC capping shall be done by drilling machine only and these holes shall be plugged with PVC plugs or grips to which the screws shall be fastened. Nowhere less than 1 inch PVC casing shall be used. All bends, tees, joints etc., shall be done in workman like manner with standard accessories. The number of wires in PVC casing

capping shall be limited to a fill factor of not more than 60%. The point shall be controlled by 5 amp switch. The switch boards shall either be flush mounted with partitions or surface mounted or concealed mounted as per site requirements and as directed. The wiring shall be carried out as described in (a) and (b) above.

Casing Capping wiring shall not be done for concealed wiring & for wiring over the false ceiling work.

A.2. DISTRIBUTION BOARDS

This specification covers the design, manufacture, assembly, testing at works, supply, installation and commissioning of distribution boards at site.

The system and accessories shall be complete in all respects and any device not included specifically in this specification, but essential for proper operation of the equipment and also to meet statutory requirements shall deemed to be within the scope of the specification whether it is mentioned in the Technical Specification, or not.

If the vendor finds that it is required to undertake any work which is not sufficiently defined in this specification or discovers that this specification conflicts with any other codes, standards and regulations which shall be required to comply, the same shall be clarified in writing from the Owner/Consultant before undertaking the work involved for avoiding the delay.

These shall be of sheet metal and of standard design with copper bus bars. The board shall be fixed at accessible heights. The boards shall be solidly fixed on MS brackets to walls/partitions, concealed or open as directed. All connections inside the distribution board shall be neatly arranged and tied with PVC strings. The MCB's shall be of 9KA for fault level. The distribution boards shall be suitably earthed. Legend shall be written on DB with paint for identification of DB & Circuits.

A.2.1 CONSTRUCTION

The distribution boards shall be fabricated out of 14/16 swg CRCA sheet steel, metal clad, totally enclosed dust damp and vermin proof, dead front, hinged door type of bolted/welded construction suitable for wall or floor mounting.

A.2.2 BUSBARS

The busbar shall be air insulated and made up of high conductivity high strength aluminum or copper busbars liberally sized with high safety factor for the required rating. The neutral busbars shall have adequate number of terminals for all number of outgoing single-phase circuits and the holes shall be suitable for multi strand wires. In the same way suitable earth bus shall be provided inside each distribution board forearthing of the lighting/power circuits and also earthing of distribution board. In the case of 3 phase distribution boards used for single phase outgoings, three independent neutral bars shall be provided.

A.2.3 MINIATURE CIRCUIT BREAKERS

Miniature circuit breakers (MCB) shall be of heat resistant, moulded type designed, manufactured and tested as per IS-8828.

The MCBs shall have inverse tripping characteristic against overloads and instantaneous trip against short circuits. The MCB shall be of fault current limiting device also.

The MCB shall be slip on type to the DIN rail. The ON & OFF positions of the switch handle shall be clearly marked. The MCB shall be suitable for operating in an ambient temperature of 45 deg centigrade without de-rating. The MCB shall be suitable for 415V, 3 phase, 415Volts, 50Hz system with a fault level of 9-10KA (rms) symmetrical. The terminals of MCBs shall be suitable for use with eye lugs. The 4 pole, 3 pole and 2 poles MCBs knobs shall be trunked with adequate strength tandem pin.

Each distribution board shall have individual hinged/bolted gasketed doors with suitable screws. Removable conduit entry plates shall be provided at top and bottom of the DB to facilitate drilling the conduit holes at site to suit individual requirements or knock out shall be provided.

Protective hylem / bakelite insulated cover plate shall be provided inside the panel to shroud all the live parts. Only the operating handle of the switch and the operating knob of the miniature circuit breakers shall be projecting outside the cover plate in case of ordinary IP20 DB and shall be inside the front door in case of dust tight IP42 DB. The unused outgoing holes / knockouts / cutouts of DB shall be suitably blanked with PVC plates at no extra cost. The incoming switch terminal should be suitably shrouded to avoid accidental contact. Each outgoing in the MCB DB shall have shrouding between Phases. The distribution board shall be factory wired and assembled and local fabricated DB shall not be accepted.

For TPN Distribution Board, four pole isolators shall be provided as incomer. For single phase and neutral Distribution Board, double pole isolator / ELMCB shall be provided as incomer. Earth leakage circuit breaker(s) to be provided wherever called for.

Suitable labels shall be provided to mark the circuit numbers of outgoings circuits.

Wiring Diagram shall be provided inside the DB.

A.2.4 EARTHING

The DB's shall be provided with two numbers of brass earthing terminals with suitable nuts, washers, etc., for connecting to earth bus. The Earth terminals shall be brought outside the DB. In case of flush mounting DB, these shall be provided inside the DB.

A.2.5 <u>PAINTING</u>

The DB sheet steel surface shall be chemically cleaned to remove scale etc., rinsed dried and shall be finished with two coat of powder coat paint over two coats of red oxide / epoxy zinc primer.

A.2.6 <u>TESTS</u>

All necessary factory routine tests shall be performed on the equipment before dispatch. The test results shall be sent along with the supply of DB.

A-03. CABLES

Cables shall confirm to IS 1554-1976. Cables shall be heavy duty, armored, PVC insulated &PVC sheathed 1.1 KV grade aluminum or copper. Cable shall be fixed with GI spacers & saddles at an interval of 30/45 cms and on every side of bends. The bending radius of cables shall be as per manufacturer's instructions and in no case, it shall be less than 12 times the overall diameter of the cable. Cable shall be so installed that they are not subject to any mechanical damage. If there is a bend in the cable enclosed in a conduit, care has to be taken to prevent undue compression of insulation. This applies also to the top of vertical runs of length longer than 5 meters where there could be compression caused by the weight of unsupported vertical cables. Cables may rest without fixing in horizontal runs or ducts or trunkings. The cables run in cable trays shall be fixed with cable ties at intervals of not more than 30 cms. No joints in the cables shall be permitted unless the cables exceed the standard drum length. Joints, if so necessary shall be located in accessible position. Termination of the cables shall be done with heavy duty copper/Aluminum lugs and brass cable glands.

Cables laid underground shall be to a minimum depth of 750 mm. It shall be ensured that cables laid underground are free of water lines, sewage lines etc. The trenches shall be at least 30 cm wide & filled with 10 cms thick of layer of dry sand on which the cable shall be laid. Further, 10 cms thick sand layer shall be put on the cable over which a brick layer shall be provided. The trench shall than be back filled with soft earth, rammed and consolidated to its original level. Cable route indicators shall be laid at intervals of 15 meters and at all change in directions.

For cables laid on walls aluminum tags shall be fixed showing the size of the cable and the feeder number of the cable. These tags shall be provided at each end and at least one or two places at intermediate positions.

The mode of measurement of the cables shall be as follows:

i) For top entry of the cable, the measurement shall be taken up to the bottom of that switch-gear.

ii) For bottom entry of the cable, the measurement shall be taken up to the top of that switch board. No wastage shall be allowed for measurements.

A-04. SWITCH FUSE UNITS

Switch Fuse Units shall be of sheet metal or iron clad with HRC fuses as described in schedule of quantities. The unit shall be of robust construction of standard specified make, design to withstand adverse working conditions. It shall have quick break type mechanism with ON and OFF position indicators of the operating handle. The switch shall be interlocked so that the unit cannot be opened in ON condition. The interior shall be so arranged that

clearances from live parts are adequate and shrouded. Manufacturer's instructions shall be followed for installation of switch fuse units. The switch shall be solidly earthed. The switch shall be mounted on walls on angle iron support grouted to wall. The supports shall be treated for rust treatment & painted with 2 coats of synthetic enamel paint. The height of the switch board shall be such that it is accessible for operation & maintenance.

A-05. POWER PANELS

The Power panels shall be fabricated from MS sheet steel 14/16 gauge and shall be of compartmental design. The main supporting framework shall be of angle iron or of heavier gauge sheet metal. The panel shall be self-supporting design, dust and vermin proof, dead front and fully inter locked with isolating switches. The panel-mounted switches shall have Interlock defeat arrangement for testing and inspection.

The panel shall be designed so as to facilitate inspection, cleaning and repairs. The clearance between phase to phase and phase to earth or metal parts shall be as per relevant IS standards. The metering instruments like volt meter, ammeter etc. shall be flush mounted and shall be of 1.0 class accuracy and of standard design size of 96 mm x 96. All indication lamps shall be of neon /LED type.

The busbars shall be air insulated and made up of high conductivity, electrolytic aluminum / copper bars complying with the requirement of IS 5082:1981 and shall have a fault withstand capacity of 50 KA/1 Sec. All busbars shall be fully screened by means of PVC heat shrinkable sleeves in their own compartment running throughout the length of the Panel. Suitable allowance should be made for bus expansion.

The panel shall have separate cable ally and a bus bar chamber. The bus bars shall be rigid hard drawn tinned electrolytic copper wherever specified & sleeved with heat shrinkable sleeves. The current density shall not exceed 1.25 amp per sq.mm and the neutral bus shall be rated for capacity of phase bus unless otherwise stated in schedule of quantities/drawings. However, the minimum size of bars shall be 25mmx3mm. Minimum electrical clearance shall be maintained between phases, neutral and body as per IS 4237:1982. All outgoing feeders shall have neutral link of appropriate capacity at cable termination end. For Incomers as MCCBs wherein cable is directly connecting at switchgear end the neutral link to be mounted adjacent to switchgear.

The panel shall be powder coated comprising of degreasing and de-scaling in sulphuric acid etc. with synthetic enamel paint for smooth finish. The color of paint shall be battleship grey or as directed. The Panel shall be tested at site before commissioning. The Panel drawings shall be got first approved from Consultants before taking up for fabrication.

All wiring inside the panel shall be done with switchboard copper conductors/cables and/or with solid copper links. The insulators for supporting the Bus-Bars shall be epoxy based cast resin. All hinged doors shall be earthed with flexible braided copper earth. An earth bus of copper shall be fixed along the length of the panel at the lower section. Adequate ventilation for the panel shall be provided. Logic diagram of operation of switches shall be painted on the panel. The name plates for each feeder shall be of engraved design and

pasted to the respective switch gear. The letters shall not be less than 10 mm size for individual feeders and not less than 18 mm for the main feeders. All switchgear to be mounted in the panel shall be as per schedule of quantities.

A-06. EARTH PITS/STATION

The Earthing station shall be done as per IS 3043 (1981) and as per drawing no. E1. The earth pit shall be at least 2.5mtrs deep with CU/GI Plate electrode. The GI plate electrode shall be hot dipped of 600x600x6 mm thick. The size for copper plate electrode shall be

600x600x3mm thick. An alternate layer of salt and charcoal shall be filled up to 200 mm above the top of the electrode. The electrode shall be connected with 32x6 mm thick GI Flat (for copper earth electrode size of flat shall be 25x3 mm) which shall be terminated with nuts and bolts into brick masonry chamber on top. The brick masonry chamber shall be of size 300x300x450mm deep which will carry the funneling arrangement for watering. A GI Flat of 32x6 mm from brick masonry chamber to the switch gear inside the switch room shall be laid underground and/or fixed to walls. The rate for laying GI/ CU strip from earth pit to switch room shall be paid under separate item.

All the main earth conductor above the ground level shall be painted with two coats of enamel paint. The following colour codes have to be followed:

- (a) Main body earth bus
- (b) Main neutral earth bus
- (c) Lightning protection earth bus
- Green colour
- Black colour
- Red colour or as preferred by Owner/Consultant.

Earthing system of equipment earthing, neutral earthing, Data Networking earthing and lightning protection earthing should not be mixed together above the ground. These systems/connections shall be tested in accordance with IS 3043-1987. Earth resistance of the individual system shall be measured after connecting all the electrodes to the bus and the combined value shall be less than 1 ohm (One ohm).

A-07. INSTALLATION OF ELECTRIC FITTINGS

All electrical fittings shall be fixed with down rods or on round blocks as stated in schedule of quantities. The down rods shall be of 19/20 mm dia. and with 1.6mm wall thickness of ERW black enameled MS or GI. The down rods shall be fixed with ball and socket joints, check nuts etc. Special fixtures like spot lights etc.; shall be fixed to the false ceilings as per manufacturer's recommendations. The fittings shall be connected with 3 core 0.5 sq.mm flexible copper cord/cable from ceiling rose and suitable earthed.

A-08. POWER FACTOR CORRECTION PANEL

The power factor correction panel shall be fabricated from sheet steel & powder coated. The panel shall be compartmentalized with tinned copper bus bars TP as described for power panels.

The power capacitors shall be APP type, low loss, 3 phase, delta connected & selfdischarged type.

The power factor control shall be done by automatic power factor control relay for controlling the power factor within the set limits by auto switching of required capacitor Banks. The required Capacitors / PF Banks shall be as per schedule of quantities. The P.F. shall be automatically corrected to near Unity.

The C.T. ratio given in the Schedule/diagram is indicative. The same shall be matched for correct operation depending upon the operating load. The relay shall be totally microprocessor based for setting the desired target power factor band. The APFC relay shall have indications like power ON, low current etc. & shall be of required stages as per schedule of quantities. The P.F Panel shall have Auto Manual switching facility.

The general specification shall be as follows:

- i) System supply voltage 415 volts.
- ii) C.T. secondary rating 5A, 5VA Burden.
- iii) Output switching capacity 5A at 230 V AC & 2A at 440V AC, Operating temperature 10 degree Centigrade to 50 degrees Centigrade. Accuracy better than 1%. Low current release 10% of full rated C.T.
- iv) Switching time between stages 4 to 6 seconds.
- v) Range of indications of PF 0.5 lag to 0.5 lead digital.
- vi) Display LED indications.
- vii) Range of target P.F. setting 0.7 to 0.99.
- viii) Switch for auto/manual operation.
 - ix) Indications for selection of stages.
 - x) Selection of dead band.

A-09. TESTING OF ELECTRICAL INSULATION

The following tests shall be carried out during execution and after completion of the electrical installation work.

- 1) Insulation Resistance Test.
- 2) Polarity Test of Switches.
- 3) Earth Continuity Test.

1) Insulation Resistance Test: The insulation resistance shall be measured by applying between earth and whole system of conductors or any section thereof with all fuses in place and all switches closed (except in earthed concentric wiring) all lamps in position & both poles electrically connected together, or direct current pressure of not less than twice the working pressure, provided that it need not exceed 500 volts for medium voltage circuits, be applied. Where the supply is derived from 3 wire DC or Poly phase A.C. System, the neutral pole of which is connected to the earth either direct or through added resistance, the working pressure shall be deemed to be that which is maintained between the phase

conductor and the neutral. The insulation resistance measured in mega-ohms between all conductors connected to one pole of phase conductor of the supply and all the other conductors and switches in off position it's value shall be not less than as specified below:

The insulation resistance measured in mega ohms shall not be less than 50 mega-ohms divided by the number of outlets or when PVC insulated cables are used for wiring, 12.5 mega-ohms divided by the outlet subject to a minimum value of 1 mega-ohm.

A preliminary and similar test may be made before lamps etc. are installed and in this event the insulation resistance to earth shall not be less than 100 mega ohms divided by the number of outlets or when PVC insulated cables are used 25 mega ohms divided by the number of outlets subject to a minimum of 1 mega ohm.

<u>2) Polarity Test of Switches</u>: In a 2-wire system a test shall be made to verify that all switches in every circuit are fitted in the same conductor throughout and such conductors shall be labeled or marked for connection to the phase conductor or to the non-earthed conductor of supply.

In a 3 wire or 4 wire insulation a test shall be made to verify that every non-linked single pole switch is fitted in a conductor which is labeled or marked to one of the phase conductors of supply.

<u>3) Earth Continuity Test</u>: The Earth Continuity Conductor including metal conduits and metallic envelopes of cables in all cases shall be tested for electric continuity and electrical resistance of the same along with the earthing lead but excluding any added resistance or earth leakage circuit breaker measured from connection with earth electrode to any point in the earth continuity conductor in the completed insulation shall not exceed 1 ohm.

TECHNICAL SPECIFICATION OF TESTING AND COMMISSIONING

The scope of work for testing and commissioning of the total installation shall be for the capital equipment like transformers, switchgears, cables etc., and also for the associated equipment like relays CTs, PTs, etc.

The scope of work for testing and commissioning of electrical equipment for the above shall include but not be limited to the following:

- a) Providing sufficient number of experienced Engineers, Supervisors, Electricians so that the installation can be commissioned in stipulated time.
- b) All the instruments, tools and tackles required for carrying out the testing and commissioning shall be provided by the bidder.
- c) The testing of electrical equipment shall be carried out as per the relevant Indian Standards/Code or Practices/Manufacturer's instructions.
- d) Cleaning of electrical equipment, contacts cleaning and greasing etc. All the equipment and material required for above shall be supplied by the bidder.

- e) Connecting the panel/equipment wiring for proper functioning of the schemes required/called for.
- f) Installation and wiring of additional equipment on panels like auxiliary contactors, timers, etc. which may be additionally required for proper functioning of the schemes.
- g) Checking of equipment earthing and system earthing as a whole.
- h) Testing of all the cables.
- i) Co-ordination with other contractors for testing and commissioning of interface cables.

TESTS TO BE CONDUCTED

- 1. All tests shall be performed in the presence of the bidder and customer/consultant. For all types of visual inspections, checking, pre-commissioning, commissioning test and acceptance tests, IS Code to be followed for the tests given therein in addition to the instructions in this technical specification. The intention of giving the few test procedures, described below, is to provide a guideline for the bidder. However, bidder shall not restrict themselves in carrying out only the tests described in this document.
- 2. Bidder shall submit their proposed test procedures for approval and shall not commence testing such approval is given.
- 3. Bidder shall check and test all electrical equipment and systems installed and supplied them, including equipment supplied by the Owner.
- 4. Bidder shall supply all necessary test equipment and personnel both craft and supervisory category to carry out the work without danger to personnel or damage to equipment.
- 5. Bidder shall ensure that no tests are applied which may stress equipment above the limits for field testing recommended by the manufacturer. Bidder shall be responsible for any damage to personnel or equipment resulting from improper test procedure.
- 6. All defective materials furnished by the bidder and defects due to poor workmanship revealed through field testing, shall be corrected at bidder expense without affecting the completion of the project.
- 7. Client/Consultant reserves the right to interpret and approve all test results prior to energization of circuits or apparatus.
- 8. Bidder shall visually inspect all equipment for defects immediately upon arrival at site including those supplied by the Owner.
- 9. Relay coordination chart and final setting before/commissioning.

MECHANICAL CHECKOUTS

After installation, but before any power supply is connected, the contractor shall make a complete mechanical check of all installed electrical equipment and systems. This shall include but not to be restricted to the following:

- Check equipment numbers against drawings/documents.
- Check name plates of transformers, switch gears etc., for conformity with the data given in the drawings and specifications.
- Check all equipment bus joints and connections for tightness.
- Check all cable and wire connections for tightness.
- Check phase sequence.

- Check all bushings/insulators to ensure they are clean and unchipped. Inspect tank cooling tubes and radiators for leaks.
- Check silica gel for dryness where breathers are supplied. If the colour of the silica gel is pink, remove from the breather and dry out following manufacturer's recommended procedure, until a light blue colour is restored and then replace it.
- Check valve in the connecting pipe between the conservator and transformer tank to ensure that valve is in 'open' position.
- Check interlocking on access doors for mechanical and electrical safety. Check that key and electrical interlocking system functional and accomplish their purpose.
- Check all plug-in contacts for alignment and 'grip'.
- Check all contactors for free manual operation.
- Remove all locking devices installed for shipment.
- Check all the coils for their continuity and proper voltages.
- Check the arc chutes, arcing horns, main contacts of breakers are clean and undamaged. Check the carriages ride smoothly and reliably on their guide-rails. Check for proper operation of circuit breaker operation mechanism, controls and adjustments.
- Check for the fuses whether correctly rated and installed, undamaged and fit for operation.
- Check all relays and instruments are clean, correctly connected and undamaged. Check test plugs are installed in all protective relays. Check relays for free manual operation, if applicable.
- Check instrument transformer ratings against drawings. Check for proper installation and connection.
- Check interlock and auxiliary devices and the operation of the circuit breaker with the protection relay circuit.
- Clean the equipment by vacuum cleaner before energizing.

EARTHING

- Bidder shall test the buried earth grid and shall record the values.
- Bidder shall inspect and test all earthing work carried out by him, including all interconnections between ground loops, grounding of equipment and ensure all connections are permanent and that the earthing circuit is continuous.
- Bidder shall megger and record earth resistance at various earth connection points.

SWITCHGEAR

- Switch gears rated 433 volts or more shall be tested with a 1000 volts megger.
- Auxiliary wiring rated less than 415 volts shall be tested with a 500 volts megger.
- All protective relays shall be tested at sufficient points to establish their proper functioning in accordance with the manufacturer's specification and curves.
- Operation checks and functional checks on all switchgear panels.
- For current transformers insulation test, polarity test, ratio test, secondary injection test, operating current check, service setting in consultation with Client / Consultant.
- For potential transformers, ratio test, insulation test, etc.

• Contact resistance for breaker contacts between male and female.

WIRES AND CABLES

- Continuity testing of all cables.
- Wires and cables rated for 433 volts or more shall be tested with a 1000 volts megger. Cables rated less than 433 volts shall be tested with a 500 volts megger.
- No wires or cable having resistance between conductors or between conductors and ground of less than 100 mega-ohm shall be accepted.

FUNCTIONAL TESTING

1. All circuit breakers, contactors, relays, remote devices, etc.,

PRECOMMISSIONING TESTS

• All pre-commissioning tests stated as per IS for respective items.

	LIST OF APPROVED MANUFACTURERS OF MATERIALS TO BE USED IN THE ELECTRICAL WORKS SUBJECT TO THE APPROVAL OF SAMPLES BY THE CONSULTANT/ ENGINEER
S. No	Material Name.
1	Switches/Sockets : Legrand –Mosaic / MK-wrap around/ Citric / Anchor -Woods / Schneider-Opale/ Crabtree-Thames/Athena /Wipro (North west) - Stylus/Convex
2	Copper Conductor wires : Finolex /RR Cable/Havells/ Power flex/ Poly Cab/ KEI /Lapp/
3	PVC conduits, Casing , Capping & Accessories : Precision / Sudhakar/ Avon plast/ FINOLEX
4	Metal clad Sockets : Legrand /L&T- Hager /ABB/SIEMENS/ Schneider
5	MCBs /MCB Distribution boards(Powder coated Only) : ABB/Siemens/ Legrand / Schneider /L&T/ Hager
6	MCCBs/Switchgear : ABB/Schneider/ Legrand/ Siemens /GE Power/ L&T/ Hager(Compact) /
7	HT/LT Cables : CCI /Nicco /Havells/ Universal/ Poly Cab

8	Cable Glands : HMI /Comet/ Cosmos/Dowells (Biller India)/ Hax Brass
9	Capacitor Bank : Epcos/Havells/ L&T/ Schneider/Tibcon
10	Cable Lugs : Dowell's / 3D
11	MV Panels (PCCs): Manufacturers with CPRI Test Certificate.
12	Measuring Instruments : Conzerv/ CMS/ El measure/IME/ L&T/ Nippen/ Schneider Electric
13	Selector Switches: Vaishno / Salzer / Kaycee
14	Indication Meters/ Lamps :Schneider / Conserv/ L&T/ Elmeasure/Vaishno / Binay
15	Resign cast CTs : AE / Kappa
16	Telephone Wires: Lapp / Delton / Poly cab/ Finolex/
17	Light Fixtures (LED): Philips / GE/ Havells/ CG/ Wipro
18	Ceiling Fans, Wall mounted fans & Exhaust Fans : Havells/CG/Orient/ USHA

Any additional item as per BOQ specifications or as per the instructions of the SBI / Consultants. Any of the above items / other items if any will be as approved by the Consultants & Engineer-in-charge.

NOTE:-

- j) The contractor shall produce samples before procurement of the material for approval of the Employer for all materials required for works. Samples can be submitted from any of the above makes and they shall conform to specifications. Samples as approved by the Employer shall only be used on the works and the decisions of the Employer regarding sample shall be final.
- k) In respect of materials for which approved makes are not specified as above, the same shall be decided by Employer and shall be as per sample got approved from Employer before procurement.
- I) The contractor shall submit samples of all materials three months before the date of work for approval from the Employer.