



**SBI INFRA MANAGEMENT SOLUTIONS PVT. LTD., (SBIIMS),
(WHOLLY OWNED SUBSIDIARY OF SBI)
GUWAHATI CIRCLE OFFICE**

INVITES ON-LINE TENDERS ON BEHALF OF SBI
THROUGH SBI SERVICE PROVIDER
M/S e-PROCUREMENT TECHNOLOGIES PVT. LTD., AHMEDABAD

Sl. No.	Description	
(a)	Tender ID	GUW202007004
(b)	Tender Name	Air-conditioning work at GUWAHATI BRANCH
(c)	Ending Date & Time of Tender	13.07.2020 upto 02:00 PM
	Opening Date of Tender	06.07.2020
(d)	Tender Fee Amount	Rs.3000.00 (Rupees Three thousand only)

The Contractors who are in the list of approved empanelled contractors finalised in September,2018 by SBI, Local Head Office, Guwahati (North Eastern Circle) for the Category-I (**Work Value Work Value above Rs.50.0 Lakh and up to ₹100.0 Lakh**) under **AIR-CONDITIONING WORK** are only eligible to participate in this **E-Tender**.

Note: **The Contractors** should possess **valid digital signature** for participating in this E-tendering Process.

**Circle Head & Assistant Vice President(Civil),
SBI Infra Management Solutions Pvt. Ltd.
Guwahati Circle Office
3rd Floor, SBI Guwahati LHO Building,
P.O. Assam Sachivalaya,
Dispur-781006**



On behalf of State Bank Of India(hereinafter referred to as **SBI**), **SBI Infra Management Solution Pvt. Ltd.** (hereinafter referred to as **SBIIMS**) (a wholly owned subsidiary of State Bank of India), Circle Office, Guwahati invites **e-Tenders** through SBI Service provider M/s e-Procurement Technologies Pvt. Ltd. Ahmedabad from the empanelled Air-conditioning **Contractors** finalized in **September,2018** by **SBI, LHO, Guwahati** **enlisted only Category- I (Work Value Work Value above Rs.50.0 Lakh and up to ₹100.0 Lakh)** under **AIR-CONDITIONING WORK** for the following works as under :-

1.	Name & location of Work	: AIR-CONDITIONING WORK AT GUWAHATI BRANCH, ASSAM.
2.	Availability of tender documents	: Tender documents will be issued to the eligible contractors by the service provider M/S e-PROCUREMENT TECHNOLOGIES PVT. LTD., AHMEDABAD and also can be downloaded from the Bank's website www.sbi.co.in under section ' Procurement news ' from 06.07.2020 to 13.07.2020.
3.	Technical Bid	: The following Documents should be submitted in the Technical Bid in a sealed envelope addressed to the Circle Head, SBIIMS, Guwahati Circle, SBI Local Head Office Building, 3rd Floor, 'A' Block, P.O. Assam Sachivalaya, Dispur, Guwahati-781006, Assam or the scanned copies of the following documents may be e-mailed to sbiims.circleguw@gmail.com on or before 13.07.2020 up to 02:00 PM :- i) Tender Application Fee amounting to ₹3000.00(Rupees Three thousand only) (Non-Refundable) will be paid by the Bidders only through State Bank Collect(SB Collect an efficient MIS report generating tool). The steps involved in making the payment is provided at Annexure-D.



		<p>The receipt generated with the Reference No. will be submitted as part of the Technical Bid.</p> <p>ii) <u>Earnest Money Deposit (EMD)</u> amounting to Rs.60000.00 to be deposited to the Bank's A/C No. 10242804581 (Name of the Account :- SBI, LHO, PREMISES & ESTATE Department Misc. Deposit account, maintained at SBI, Dispur Branch, IFSC code-SBIN0003030) and submit the deposit voucher copy as proof of deposit the amount as part of the Technical Bid.</p> <p>iii) <u>The Process Compliance Form as at Annexure-I</u> Duly filled, signed and stamped by the Bidder as token of acceptance of all the terms & conditions stipulated in this tender, which is also to be e-Mailed to the Service Provider for conducting e-Tendering Process.</p> <p>The Bidder, who failed to submit any of the above mentioned documents, will be disqualified in Technical Bid and will not be allowed to participate in the Price Bid. Moreover, the conditional tenders are liable for rejection and will not be allowed to participate in e-Tendering Process.</p>
4.	Price Bid	<p>: The Lowest Bidder will be finalized from the Price Bid submitted by the Contractors through on-line Price Bid. The Details of the events is as under:-</p> <p>i) Submission of On-Line Price Bid (Grand Total</p>



		Price as well as item wise rate break-up): On 14.07.2020 from 11:30 AM up to 04:00 PM. Only the bidders who qualified in Technical Bid (who submitted specified Tender Processing Fee, EMD and duly filled & signed Process Compliance Form) will be eligible to participate in the Online Sealed Price Bid submission of this e-Tendering Process. The bidder should have valid digital signature for participation in e-Tendering Process.
5.	Opening of Price Bid	: 14.07.2020 after completion of the time period of e-Tender.
6.	Validity of Tenders	: For a period of 90 days from the date of e-Tendering.
7.	Initial security deposit (ISD)	: 2% of the awarded value of work including EMD
8.	Retention money	5% (Including EMD+ISD)of the Final certified Bill value.
9.	Commencement of the work	The date of commencement of the work will be reckoned as the date of handing over site or two days from the date of issue of Work Order of the tender whichever is later
10	Time allowed for completion	: 45 days from the date of handing over site or 10 days from the date of issue of letter of acceptance of Bank whichever is later.
11	Deduction of Income Tax and GST	: A) TDS on Income Tax/GST will be deducted at source as per Govt. Guidelines.



		<p>B) Reimbursement of GST on work contract will be made only on submission of proper GST invoice as per applicable GST provision. The contractor should comply with the following;</p> <ul style="list-style-type: none"> i. Contractor should have GST Registration Number ii. Invoice should specifically/separately disclose the amount of GST levied at applicable rate as per GST provision iii. In case of Correction in the bills after scrutiny, contractor should submit fresh invoice for payment iv. Contractor should timely file his GST return in accordance with GST provisions to enable the bank to claim the credit of GST paid to the contractor.
12.	Terms & mode of payment	<p>: i) No advance payment will be made for the work.</p> <p>ii) After successful completion of entire work 100% payment will be released against submission of GST invoice and work completion Certificate after deducting security deposit and statutory deductions as applicable.</p> <p>iii) Payment shall be made by way of Electronic fund transfer by the concerned SBI Branch/Office where the work has been executed. The contractor should furnish details of the Bank, A/c</p>



		no, IFSC code etc.
13	Quoted Rates for Annual Maintenance Contract(AMC) of the Air-conditioners	The rates for comprehensive AMC of the Air-conditioners should be quoted reasonably so that the quoted total amount for AMC should not be 5% less than the total estimated amount for AMC i.e Rs.3,00,000.00 . After completion of e-tender, if it is found that the L1 Bidder quotes 5% below the total estimated amount for AMC i.e Rs.3,00,000.00, the tender would not be accepted. This AMC rate will be applicable for 5 years after completion of the defect liability period of 1 year.
14.	Overall Quoted Amount	Moreover, if the L1 bidder quotes abnormally low (10% below the Total estimated cost including AMC), he will be required to furnish a Performance Guarantee for an amount not less than the difference amount of the estimated cost and the accepted tender amount_valid for a period of 12 months from the date of signing the contract from a Scheduled Commercial Bank other than SBI <u>or SBI STDR lien to the Asstt. General Manager(P&E), SBI, LHO, Guwahati for an amount not less than the difference amount of the estimated cost and the accepted tender amount_in addition to the Security Deposit amounting to 2% of the <u>accepted tender amount</u>, which will be released after virtual completion of the work.</u>
15.	Liquidated Damages	: If the bidder is not able to complete the work within the stipulated completion period as per tender, liquidated Damages will be imposed at



			the rate of 0.5% of the contract value per week subject to a maximum of 5% of the contract value.
16.	Defects Liability Period	:	12 Months (Twelve months) from the date of completion of the work and handing over to the Bank.
17.	Contact details for any clarification	:	The Circle Head & The Assistant Vice President(Civil), SBI Infra Management Solutions Pvt. Ltd. Guwahati Circle Office, 3rd Floor, SBI, LHO Building, Guwahati, Dispur- 781006 , Ph: 0361-2237509 Mobile No.9435047923
18.	Contact details for any e-Tender related queries	:	Service provider: M/s e-Procurement Technologies Ltd. (Procure Tiger) A- 201, Wall Street - II, Opp. Orient Club, Nr. Gujarat College, Ahmedabad - 380 006. Gujarat State, India Tel.:- PH. NOS. : +91 79-40016837/ 835 / 886 / 887 / 802 / 852 / 865 / 800, Fax:- 91 - 079 – 40016876. You are requested to contract the agency for further guidance on e-tendering process
19.	Any additional Information	:	The quoted rate should be inclusive of materials, labour, wages, fixtures, transportation, installation, all taxes & charges , cost of the insurances as specified in the tender, cost towards testing of materials supplied, wastages, Octroi, machinery, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental



		charges and all related expenses to complete the work. However, GST on work contract will be paid extra as applicable.
	Notes:	
a)	All Bidders are informed that, price bidding for the work will be through e-tendering method. The bill of quantity of tender i.e "Price Bid" is to be submitted online on e-tendering portal. Orders will be placed on the basis of closing price by bidders in the "Price Bid.	
b)	The Bidders are expected to examine all instructions, forms, terms and specifications in the tender documents. Failure to furnish all information required as per the Tender Documents or submission of bids not substantially responsive to the Tender Documents in every respect will be at the Bidders risk and shall result in rejection of the Tender.	
c)	In case the date of submission of Tender Processing Fee, EMD, Online Price Bid is declared as a holiday, the respective date will be considered on the next working day at the same time. The bidder, who is the authorized representative and participating on behalf of company/ Dealer/vendor, should have a valid digital signature certificate (DSC) for this tender.	
d)	The SBIIMS reserves the right to cancel or postpone or modify the tenders at any stage without assigning any reason.	
e)	Since bidder has to quote item-wise rates and Gross Total Amount for the entire work in on-line Price Bid, therefore they are strongly advised to visit site before submitting their Price Bid to make the work complete in all respects in the stipulated time.	
f)	Corrigendum, if any, is to be followed as published in https://etender.sbi/ portal only.	



(For and on behalf of State Bank of India)

Sd/-

Circle Head & Assistant Vice President(Civil)

SBIIMS, Circle office, Guwahati.



BUSINESS RULES FOR e-TENDERING

Name of Work / Project:- AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide
TENDER ID G UW202007004 DATED 06.07.2020

BUYER NAME	State Bank of India
E-TENDERING TO BE CONDUCTED BY	SBI Service Provider: M/s e-Procurement Technologies Ltd. (Procure Tiger) A- 201, Wall Street - II, Opp. Orient Club, Nr. Gujarat College, Ahmedabad - 380 006. Gujarat State, India Tel.:- PH. NOS. : +91 79-40016837/ 835 / 886 / 887 / 802 / 852 / 865 / 800, Fax:- 91 - 079 – 40016876.
DATE & TIME OF ON-LINE PRICE BID	On 14.07.2020 from 11:30 AM to 04:00 PM. in e-Tendering Website : https://sbi.abcprocure.com
DOCUMENTS ATTACHED	i) Notice Inviting Tenders (NIT) ii) Business rule for finalization of tender iii) Terms & conditions of E-Tendering iv) Process Compliance Statement (Annexure I) v) TERMS & CONDITIONS OF THE CONTRACT vi) SPECIAL CONDITIONS OF THE CONTRACT vii) Bid Confirmation (Annexure –II) viii) BOQ- Break-up-of Quantity (Annexure-III) ix) Electrical installation work terms & conditions xi) Contact Information.



Against this Enquiry for the subject item/system with detailed scope of supply as per our specification, SBI may resort to “**E-TENDERING PROCESS**” which comprises of on-line **Price Bid**.

1. For the proposed e-Tendering Process, already empanelled vendors for the said purpose who qualified in Technical Bids only shall be eligible to participate.
2. SBIIMS will engage the services of a service provider who will provide all necessary training and assistance before commencement of on line bidding on Internet.
3. SBIIMS 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, time , etc. also will be communicated through service provider for compliance.
5. Vendors have to fax the compliance form in the prescribed format (provided by service provider) before start of e-Tendering Process. Without this the vendor will not be eligible to participate in the event.
6. E-Tendering Process will be conducted on schedule date & time.
7. At the end of E-Tendering Process, the lowest bidder value will be known on the network.
8. The lowest bidder has to fax the duly signed filled-in prescribed format as provided on case-to-case basis to SBIIMS through service provider within 24 hours of completion of E-Tendering without fail.
9. Any variation between the on-line bid value and signed document will be considered as sabotaging the tender process and will invite disqualification of vender to conduct business with SBI as per prevailing procedure.



Terms & Conditions of E-Tendering Process

1. LOG IN NAME & PASSWORD: Each Bidder is assigned a Unique User Name & Password by ETL. The Bidders are requested to change the Password after the receipt of initial Password from ETL. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.

2. BIDS PLACED BY BIDDER: The bid of the bidder will be taken to be an offer to execute the work. Bids once made by the bidder cannot be cancelled. The bidder is bound to execute the work as mentioned above at the price that they bid. Should any bidder back out and not make the supplies at per the rates quoted, SBIIMS and / or ETL shall take action as appropriate.

3. LOWEST BID OF A BIDDER: In case the bidder submits more than one bid, the lowest bid will be considered as the bidder's final offer to execute the work

4. E-TENDERING TYPE: a) Online Sealed Price Bid.

5. E-TENDERING WINNER: At the end of the Price Bid, who quoted the lowest Grand Total Price(L1 Price) will be the winner.

6. GENERAL TERMS & CONDITIONS: Bidders are required to read the "Terms and Conditions" section of the e-Tendering site using the Login Ids and passwords given to them.

7. 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 bidders.
- The Bidder shall not divulge either his Bids or any other exclusive details of SBIIMS to any other party.
- SBIIMS's decision on award of Contract shall be final and binding on all the Bidders.
- SBIIMS along with ETL can decide to extend, reschedule or cancel any E-Tender. Any changes made by SBIIMS and / or ETL, after the first posting will have to be accepted if the Bidder continues to access the site after that time.



- ETL shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
- ETL is not responsible for any damages, including consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

N.B

- **All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event**
- **All the Bidders are required to submit the Agreement Form (Annexure- I) duly signed to M/s e-Procurement Technologies Pvt. Ltd, Ahmedabad and copy of the same to be send to SBIIMS along with technical bid as mentioned in the above NIT before due date.**



Process Compliance Form

Annexure- I

(The bidders are required to print this on their company's letter head and sign, stamp and send the scanned copy to service provider and hard copy / scanned copy to SBIIMS, Guwahati Circle)

To

Date:

e-Procurement Technologies Ltd. (Procure Tiger)
A-201-208, Wall Street-II, Opp. Orient Club,
Nr. Gujarat College, Ahmedabad-380 006,
Gujarat, India.
Tel: (079) 40016837 / 835
Fax: (079) 40016876

Sub: Agreement to the Process related Terms and Conditions for the e-Tender

Dear Sir,

This has reference to the Terms & Conditions for " e-Tendering for **AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide TENDER ID GUW202007004 DATED 06.07.2020**

This letter is to confirm that:

1. The undersigned is authorized representative of the company.
2. We have studied the all the terms & conditions specified in the tender, Commercial Terms and the Business rules governing the e-Tendering Process and the RFP as mentioned in your letter and confirm our agreement to them.
3. We also confirm that we have taken the training on the E-Tendering tool and have understood the functionality of the same thoroughly.
4. We confirm that SBIIMS and ETL shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-Tendering platform due to loss of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the E-Tendering event.
5. We understand that in the event we are not able to access the e-Tendering site, we may authorize ETL to bid on our behalf by sending a fax containing our offer price before the e-Tendering close time and no claim can be made by us on either SBIIMS or ETL regarding any loss etc. suffered by us due to acting upon our authenticated fax instructions.
6. I/we do understand that ETL may bid on behalf of other bidders as well in case of above mentioned exigencies.
7. We also confirm that we have a valid digital certificate issued by a valid Certifying Authority.
8. We also confirm that we will fax the price confirmation of our quoted price as per Annexure II and the format as requested by SBIIMS/ ETL.
9. We, hereby confirm that we will honour the Bids placed by us during the e-Tendering process.
10. **I/We have inspected the site of works and have made me/us fully acquainted with the local conditions in and around the sites of works. I/We hereby declare that I/We have gone through the conditions laid down in the Notice Inviting Tender, General Conditions of Contract, Special Conditions of Contract, Technical Specifications and understood the same and on the basis of the same I/We will quote our rates in the indicative price bid and subsequent E-Tendering.**

With regards

Signature with company seal

Date:

Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:



Scan it and sent this document on birva@procuretiger.com / hemang@procuretiger.com / sbiims.circleguw@gmail.com.



TERMS & CONDITIONS OF THE CONTRACT

GENERAL INSTRUCTIONS TO THE TENDERERS

1.0 Scope of Work

Tenders are invited by SBIIMS on behalf of State Bank of India for **AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide TENDER ID GUW202007004 DATED 06.07.2020**

1.1 Site and Its Location: The proposed work is to be carried out at ABOVE MENTIONED SITE.

2.0 Tender Documents

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

- a) Instructions to tenderers
- b) General Conditions of Contract
- c) Special Conditions of Contract
- d) Technical Specifications
- e) Drawings
- f) Price Bid

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) Drawings
- c) Technical Specifications
- d) Special Conditions of Contract
- e) General Conditions of Contract
- f) Instructions to Tenderer

2.3 The tender documents are not transferable.

3.0 Site Visit

The tenderer must obtain himself on his own responsibility and his own expenses all information and data which 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 Deposit(EMD) :-

4.1 The tenderer are requested to submit the Earnest Money AS SPECIFIED to be deposited to A/C No. 10242804581 (SBI, LHO, PREMISES & ESTATE Department Misc. Deposit account) maintained at SBI, Dispur Branch (IFSC code-SBIN0003030).

4.2 No interest will be paid on the EMD.

4.3 EMD of unsuccessful tenderers will be refunded within 30 days of award of Contract.

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

4.5 The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time during the period when he is required to keep his tender open acceptance by the SBIIMS or after it is accepted by the SBIIMS, the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the work within the stipulated time.

5.0 Initial Security Deposit(ISD) :-

The successful tenderer will have to submit a sum equivalent to 2% of contract value less EMD to be deposited to A/C No. 10242804581 (SBI, LHO, PREMISES & ESTATE Department Misc. Deposit account) maintained at SBI, Dispur Branch (IFSC code-SBIN0003030) within a period of 15 days of acceptance of tender.

6.0 Security Deposit :-

6.1 Total security deposit shall be 5% of final certified Bill value. Out of this 2% of contract value is in the form of initial security deposit, 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 3% of contract value is reached. 50% of the total security shall be paid to the contractors without interest on the basis of certifying the virtual completion. The balance 50% would be paid to the contractors without interest within 15 days after the end of the defect liability period provided the contractor has satisfactorily attended to all defects in accordance with the conditions of contract including site clearance.

6.2 No interest shall be paid to the amount retained by SBI 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 (draft agreement attached herewith) within 7 days from the receipt of intimation of acceptance of his tender by SBIIMS. However, the written acceptance of the tender by the Bank will constitute a binding agreement between SBI 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 respects in accordance with the terms of contract within a period of **45 days** from the date of handing over site or 10 days from the date of issue of letter of acceptance of Bank whichever is later.

9.0 Validity of Tender

Tenders shall remain valid and open for acceptance for a period of three months from the date of E-Tendering Process. If the tenderer withdraws his/her offer during the validity period or makes modifications in his/her original offer which are not acceptable to the Bank without prejudice to any other right or remedy the Bank shall be at liberty to forfeit the EMD.

10.0 Liquidated Damages

The liquidated damages shall be 0.5% of the accepted tendered cost per week subject to a maximum of 5% of contract value.

11.0 Rates and Prices

11.1 The tenderers shall quote their rates for individual items including Grand Total tendered amount through online submission in the Price Bid as per the attached BOQ of this tender. The rates quoted shall be firm and shall include all costs of labour, material, allowances, taxes if any (other than GST) as may be applicable. No extra claims/PVA by any means due to increase rates etc. will be entertained. Bank will only pay GST in addition to quoted rates AS APPLICABLE.

11.2 Rates as bid in the "Price Bid" will be the basis of final order placement.

11.3 The quoted Rates for AMC for Air-conditioners should not be less than 10%



Form of Tender

To
The Circle Head & Assistant Vice President (Civil) ,
SBI Infra Management Solutions Pvt. Ltd.
Guwahati Circle Office
3rd Floor, SBI Guwahati LHO Building,
P.O. Assam Sachivalaya,
Dispur-781006.

Dear Sir,

**Re: AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide TENDER ID G UW202007004
DATED 06.07.2020**

1. I/We refer to the tender notice issued by the Bank for above work at above mentioned site.

2. I/We do hereby offer to perform, provide, execute, complete and maintain the works in conformity with the drawings, conditions of contract, specifications, and bill of quantities at the respective rates quoted in the bill of quantities.

3. I/We have satisfied myself/ourselves as to the site conditions, examined the drawings and all aspects of the tender conditions. Subject to above, I/We do hereby agree, should this tender be accepted in whole or in part, to:

a) Abide by and fulfil all the terms and provisions of the said conditions annexed hereto.

b) Complete the works within 45 days as stipulated in two or three shifts if considered necessary by the Bank/Consultant at no extra cost to the Bank.

4. I/We have deposited the Tender Processing Fee(non-refundable), Earnest money deposit in the specified A/Cs and also submitted Process Compliance form confirming our acceptance of all the tender terms & conditions stipulated in the tender. I/We note, the Earnest Money Deposit will not bear any interest and is liable for forfeiture:

i) If our offer is withdrawn within the validity period of acceptance.

Or

ii) If the Contract is not executed within 10 days from the date of receipt of the letter of acceptance.

Or



iii) If the work is not commenced within 10 days after issue of work order or handing over of site whichever is later.

5. I/We understand that you are not bound to accept the lowest or any tender you receive.

6. Name of Partners/Directors of our Firm :

- i)
- ii)
- iii)

Yours faithfully

Signature:
Designation:

Name of Partner/Director of the firm authorized to Sign or Name of person having power of attorney to sign the contract (Certified true copy of Power of Attorney should be attached)

Signature and address of witness

a) Signature:

Name:

Address:

b) Signature:

Name:

Address:



Draft of ARTICLES OF AGREEMENT

(to be executed between SBI and the Contractor)

ARTICLES OF AGREEMENT made aton thisday of between the State Bank of India, a Corporation constitute under the State Bank of India Act, 1955 and having its LHO at Dispur, Guwahati and many other places (hereinafter referred to as "the OWNER") on the ONE PART

AND M/s.....having its registered office at(hereinafter referred to as the 'Contractor' on the OTHER PART.

WHEREAS the Owner is desirous of executingwork at..... (hereinafter called the 'works')

AND WHEREAS for the purpose of executing the above said 'works', SBI Infra Management Solutions Pvt. Ltd., Guwahati Circle Office, Dispur, Guwahati a wholly owned subsidiary of SBI (hereinafter called 'SBIIMS'), had called E-Tender (through service provider M/s e-Procurement Technologies Pvt. Ltd. Ahmedabad)) on behalf of THE Owner vide Notice Inviting Tender No..... dated

AND WHEREAS SBIIMS has caused the plans, drawings and specifications, price schedule of quantities of the work to be executed at the SBI as per conditions of the contract and special conditions prepared subject to which the offer of the Contractor shall be accepted.

AND WHEREAS the Contractor has deposited with the owner Rupees..... as security deposit for the due performance of the agreement AND WHEREAS SBIIMS issued work order therefore to the contractor vide letter No..... dated.....

AND WHEREAS said drawings.....inclusive of the specifications, priced schedule of quantities, condition of contract and special



conditions (hereinafter collectively referred to as the said condition) have been signed by the parties hereto and the contractor has agreed to execute the works upon and subject to the said conditions.

Agreed to execute upon and subject to the conditions set forth herein and Schedule of Items and quantities general conditions of contract, Specification and all correspondences exchanged by or between the parties from the submission of tender till the award of work, both letter inclusive, (all of which are collectively hereinafter referred to as "the said condition") the work shown upon the said drawings and/ or described in the said specification and included in the schedule of items and quantities at the respective rates therein at of such other sum as shall become payable there under (Hereinafter referred to as "the said contract amount").

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the payment to be made to the contractor as hereinafter provided the contractor shall upon and subject to the said conditions executed the completed the works shown upon the said drawings etc. and such further detailed drawings as may be furnished to the contractor by the said owner through SBIIMS as described in the said specifications and the said priced schedule of quantities.
2. The owner will pay to the contractor the sum of Rs.....(Rupees.....), hereinafter call the contract sum or such other sum as shall become payable hereunder at the times and in the manner specified in the said condition. However, the actual sum will be paid on the actual value of work done, irrespective of the contract sum.
3. The plans, agreement and documents above mentioned shall form the basis of this contract and all disputes to be decided in the manner prescribed in the conditions attached hereto.
4. The said contract comprisesas above mentioned, and shall subsidiary works connected therewith within the same site as may be ordered to be done from time to time by SBIIMS even through said works may not be shown on the drawings or described in the said specifications or the priced schedule of quantities.



5. Notwithstanding what are stated in the special condition, conditions, of contract and hereinafter stated the owner through SBIIM reserves to himself the right to alter the drawings and nature of the work and of adding to or omitting any items of works from or of having portions of the same carried out departmentally or otherwise and such alternations or variations shall be carried out without prejudice to this contact.
6. The said condition shall be read and be treated as forming part of this Agreement, and the parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and perform the same on their part to be respectively observed and preferred.
7. Any dispute arising under this Agreement shall be referred to the arbitration of a sole arbitrator appointed with consent of the Owner and the contractor as indicated in the Article of the general conditions. The award of the arbitrator shall be final and binding on both parties.

IN WITNESS WHEREOF, the parties hereto have executed these presents the day and year first hereinabove written

WITNESS

1.

2.

EXECUTANTS

1. OWNER

2. CONTRACTOR

Common Seal

In case of the company, the common seal be affixed pursuant to resolution of Board of Directors in accordance with Articles of Association of the Company the director etc. as the case may be affixing common seal may be initial in token thereof and also by putting their names.



GENERAL CONDITIONS OF CONTRACT

1.0 Definitions

“Contract” means the documents forming the tender and the acceptance thereof and the formal agreement executed between State Bank of India (Client) and the contractor, together with the documents referred therein including these conditions, the specifications, designs, drawings and instructions issued from time to time by the Bank and all these documents taken together shall be deemed to form one contract and shall be complementary to one another.

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

1.2 “Employer” shall mean State Bank of India (client) having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Mumbai 400 021 and includes the client’s representatives, successors and assigns.

1.3 ‘The Contractor’ shall mean the name of the contractor undertaking the works and shall include legal personal representative of such individual or the composing the firm or company and the permitted assignees of such individual or firms of company.

1.4 The expression ‘works’ or ‘work’ shall mean the permanent or temporary work described in the ‘Scope of Work’ and/or to be executed in accordance with the contract and includes materials, apparatus, equipment, temporary supports, fittings and things of all kinds to be provided, the obligations of the contractor hereunder and work to be done by the contractor under the contract.

1.5 ‘Engineer’ shall mean the representative of the SBI.

1.6 ‘Drawings’ shall mean the drawings prepared by the employer 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 ‘

1.7 ‘Contract value’ shall mean the value of the entire work as stipulated in the letter of acceptance of tender subject to such additions thereto or deductions there from as may be made under the provision herein after contained.



1.8 'Specifications' shall mean the specifications referred to in the tender and any modifications thereof as may time to time be furnished or approved by the employer.

1.9 "Month" means calendar month.

1.10 "Week" means seven consecutive days.

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

2.0 Language

The language in which the contract documents shall be drawn shall be in English. All communications by employer & Contractor will 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 latter shall be adopted.
- iv) In case of difference between rates written in figures and words, the rate in words shall prevail.
- v) Between the duplicate/subsequent copies of the tender, the original tender shall be taken as correct.

4.0 Scope of Work

The contractor shall carry out, complete and maintain the said work in every respect strictly in accordance with this contract and with the directions of and to the satisfaction of the Employer.

5.0 Letter of Acceptance

Within the validity period of the tender the Employer will issue a letter of acceptance by registered post or otherwise depositing at the address 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 Employer and the contractor.

5.1 Contract Agreement: On receipt of intimation of the acceptance of tender from the Employer the successful tenderer shall be bound to implement the contract and within seven days thereof he 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 SBIIMS through its Architects/ Consultants are the properties of the SBI. They are not to be used on other work.

6.1 Detailed drawings and instructions: The SBIIMS through its Architects/ Consultants shall furnish with responsible promptness additional instructions by means of drawings or otherwise necessary for the proper execution of the work. All such drawings and instructions shall be consistent with the contract documents, true developments thereof and reasonably inferable there from.

The work shall be executed in conformity therewith and the contractor is to prepare a detailed program schedule including therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBIIMS through the Architect/ Consultant.

7.0 Copies of Agreement

Two copies of agreement/tender document 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 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 damages at the rate of 0.5% of the contract value per week 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 any one not skilled in the work assigned to him. Workman whose work or behaviour is found to be unsatisfactory by the SBIIMS/ architect/ consultant he shall be removed from the site immediately.

10.0 Permits, Laws and Regulations

Permits and license 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 SBIIMS 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 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 bank 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 bank the contractor shall be responsible for the same and shall at 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 work 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 25.0 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 SBIIMS/ Architect /Consultant or their representative shall at all times have 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



SBIIMS, Architect/ consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBIIMS /architect/consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBIIMS/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 by the contractor and he shall not directly entrust and engage or indirectly transfer assign or underlet the contract or any part or share thereof or interest therein without the written consent of the Employer 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/ SBIIMS 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, labour 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.

i) Samples: All samples of adequate number, 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 the samples cannot be presented or prepared at the site detailed literature/ test certificate of the same shall be provided to the satisfaction of the 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 satisfaction. Only when the samples are approved in writing by the Architect/consultant the contractor shall proceed with the procurement and installation of the particular material/equipment. The approved samples shall be sign by the 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 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 qualities from various manufacturers and such other aspects causing



delay on the approval of the materials/ equipment etc. shall be to the account of the contractor.

ii) Cost of tests: Test provided for in the specifications or BOQ :

- a) The cost of making any test shall be borne by the contractor
- b) Test not provided for in the Specifications of BOQ :If any test is ordered by the Architect/ consultant /SBIIMS which is either 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 of the works and as long, thereafter, as the Employer may consider necessary until the expiry of the defects liability period, stated hereto.

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 subject to maximum variation of the contract value by 25%. The entire amount paid under Clause 20 hereof as well as amounts of prime cost and provisional sums, if any, shall be excluded.

ii) Variation exceeding 25%: The items of work executed in relation to variation exceeding 25% shall be paid on the basis of provisions of clause 21 (e) hereof.

19.0 Works to be measured

The Employer may from time to time intimate to the contractor that he required the work to be measured and the contractor shall forthwith attend or send a qualified representative to assist the Employer in taking such measurements and calculation and



to furnish all particulars or to give all assistance required by any of them. The representative of the Employer shall take joint 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 authorized extra work, omissions and all variations made shall be included in such measurements.

20.0 Variations

No alteration, omission or variation ordered in writing by the Employer shall vitiate the contract. In case the Employer thinks proper at any time 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 Employer shall give notice thereof in writing to the contractor or shall confirm in writing within seven days of giving such oral instructions the contractor shall alter to, add to, or omit from as the case may be in accordance with such notice but the contractor shall not do any work extra to or make any alteration 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 Employer and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Employer 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 Employer 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 Employer 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 Employer 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 Employer) the workman's name and materials employed be delivered for verifications to the Employer 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, labor, 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 six 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 Employer, the contractor shall ensure that the following works have been completed to the satisfaction of the Employer.

- 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, structures 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 and not incorporated in the permanent works.
- c) Remove all rubbish, debris etc from the site and the land allotted to the contractor by the Employer and shall clear, level and dress, compact the site as required by the Employer.



- d) Shall put the Employer in undisputed custody and possession of the site and all land allotted by the Employer.
- e) Shall hand over the work in a peaceful manner to the Employer.
- f) All defects/imperfections have been attended and rectified as pointed out by the Employer to the full satisfaction of Employer.

23.1 Upon the satisfactory fulfilment by the contractor as stated above, the contractor shall be entitled to apply to the Employer for the certificate. If the Employer is satisfied of the completion of the work, relative to which the completion certificate has been sought, the Employer shall within fourteen (14) days of the receipt of the application for virtual completion certificate, issue a VCC in respect of the work for which the VCC has been applied.

23.2 This issuance of a VCC shall be without prejudice to the SBI's rights and contractor's liabilities under the contract including the contractor's liability for defects liability period nor shall the issuance of VCC in respect of the works or work at any site be construed as a waiver of any right or claim of the SBI against the contractor in respect of works or work at the site and in respect of which the VCC has been issued.

24.0 Work by other agencies

The SBI/MS/ Architect consultant reserves the rights to use premises and any portion of 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 allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be provided any plant or material for the execution of such work except by special arrangement with the SBI/MS. 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

Contractor will have to obtain the following insurance covers for the full tenure of the work to cover risks detailed in the following parts/clauses:

- i) Contractor's All Risk Policy including third party compensation as detailed below.
- ii) Workmen Compensation Policy.



25.1 Without limiting his obligations and responsibilities under the contract the contractor shall insure in the joint names of the Employer and the contractor against all loss or 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 Employer and contractor are covered for the period stipulated in clause 28 of GCC and are also covered during the period of maintenance for loss or damage arising from a cause, occurring prior to the commencement of the period of maintenance and for any loss or damage occasioned by the contractor 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 effected with an insurer and in terms approved by the Employer which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Employer the policy of 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 Employer 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 Employer 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 Employer, their agents, employees or other contractors not being employed by the contractor 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 Employer, their employees, or agents or other employees, or agents or other contractors for the damage or injury.

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

25.4 The contractor shall fully indemnify and keep indemnified the Employer 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 Employer 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 Employer 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 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 26.0 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 26.0 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 SBI/Consultant the policy or policies of insurance cover and receipts for payment of the current premiums

25.5.3 The minimum insurance cover for physical property, injury, and death is Rs.5.0 lacs 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.



25.6 Accident or Injury to Workmen

25.6.1 The Employer 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 Employer or their agents, or employees. The contractor shall indemnify and keep indemnified Employer 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

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

25.6.3 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 Employer 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 Employer as aforesaid from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

25.6.4. Without prejudice to the other rights of the Employer 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 Employer 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 recorded date of handing over site or 10 days from the date of issue of letter of acceptance of the tender by the Employer whichever is later.

27.0 Time for completion

Time is the essence of the contract and shall be strictly observed by the contractor. The entire work shall be completed within a period of **45 days** from the date of commencement. If required in the contract or as directed by the Employer, 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 Employer, the work be delayed for reasons beyond the control of the contractor, Bank 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 Employer in writing immediately and while applying for extension of time he shall furnish the reasons in detail and his justification if any, for the delays. 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 Employer the provision of liquidated damages as stated under clause 8 of GCC shall become applicable.

29.0 Rate of progress

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



30.0 Work during night 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 holidays without the permission in writing of Architect/ consultant /SBIIMS, save when the work is unavoidable or absolutely necessary for the saving of life of property or for the safety of the work in which case the contractor shall immediately advise the 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/SBIIMS 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 for restrictions of work

If at any time after acceptance of the tender SBIIMS shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not required the whole or any work to be carried out. The Architect/consultant shall give notice in writing to 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 whatsoever, on account of any profit or advantage which he might have derived from the execution of the work fully but which he did not derive in consequence of the foreclosure of the whole or part of the work.

Provided that the contractor shall be paid the charges on the cartage only of materials actually and bonafide 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 SBIIMS 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 considerations and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in his respect the decision of Architect /consultant/SBIIMS shall be final.

32.0 Suspension of work

i) The contractor shall, on receipt of the order in writing of the SBI (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 SBI may consider necessary so as not



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 of the contractor, or
- c) For safety of the works or part thereof.

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

ii) 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.

33.0 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 Employer shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBIIMS.

- a) To rescind the contract (of which rescission notice in writing to the contractor by the Employer shall be conclusive evidence) and in which case the security deposit of the contractor shall be forfeited and be absolutely at the disposal of Employer.
- b) To employ labor paid by the Employer and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labor and materials (the cost of such labor and materials as worked out by the Employer shall be 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 the certificate of Employer as to the value of work done shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be 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 (of the amount of which excess the certificates in writing of the Employer shall be final and conclusive) shall be borne by original



contractor and may be deducted from any money due to him by Employer 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 Employer 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 rescinded 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 Employer 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 Bank'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 Employer that he is able to carry out and fulfill the contract, and to give security therefore if so required by the Employer.

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 Employer through the 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 Employer 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 Employer that



the said materials were condemned and rejected by the Employer under these conditions; or has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to be observed and performed by the contractor for seven days after written notice shall have been given to the contractor to observe or perform the same or has to the detriment of good workmanship or in defiance of the Employer instructions to the contrary subject any part of the contract. Then and in any of said cases the Employer 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 Employer 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 so determined and as if the works subsequently had been executed by or on behalf of the contractor. And, further the Employer, their agents or employees may enter upon and take possession of the work and all plants, tools, 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 complete the work and the contractor shall not in any way interrupt or do any act, matter or thing to prevent or hinder such other contractor or other persons employed for completing and finishing or using the materials and plant for the works.

When the works shall be completed or as soon thereafter as convenient the Employer 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 receipt thereof by him the Employer sell the same by public auction 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 Employer incidental to the sale of the materials etc.

35.0 Settlement of Disputes and Arbitration

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship of materials used on the work or as to any other question, claim, right, matter or thing whatsoever in any way arising out of 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 :



- a) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the Contractor shall forthwith give notice in writing of his claim, or dispute to the Circle Head, SBIIMS, Circle Office, Guwahati 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 Bank 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 Circle Head, SBIIMS, Circle Office, Guwahati 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 Circle Head, SBIIMS, Circle Office, Guwahati in writing in the manner and within the time aforesaid.
- b) Circle Head, SBIIMS, Circle Office, Guwahati 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 Circle Head, SBIIMS, Circle Office, Guwahati submit his claims to the conciliating authority namely the Circle Development Officer for conciliation along with all details and copies of correspondence exchanged between him and the Circle Head, SBIIMS, Circle Office, Guwahati
- c) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned Chief General Manager of SBI, LHO, Guwahati for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- d) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes 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 Chief General Manager.
- e) Also, there will be no objection to any such appointment that the Arbitrator so appointed is a Bank Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as Bank Officer. If the arbitrator so



appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said Chief General Manager. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

- f) 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.
- g) 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.
- h) It is also a term of this contract that no person other than a person appointed by such Chief General Manager 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 statutory modification or re-enactment thereof and the rules made there under.
- i) 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.
- j) 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 arbitrator 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 in what manner, such costs or any part thereof shall be paid and fix or settle the amount of costs to be so paid.

36.0 Certificate of Payment

The contractor shall be entitled under the certificates to be issued by the Architect/Consultant/SBIIMS to the contractor within 10 working days from the date of certificate to the payment from SBI from time to time. The SBI shall recover the statutory recoveries and other dues including the retention amount from the certificate of payment. Provided always that the issue of any certificate by the Architect/Consultant during the



progress of works or completion shall not have effect as certificate of satisfaction or relieve the contractor from his liability under clause. The Architect/Consultant shall have power to withhold the certificate if the work or any part thereof is not carried out to their satisfaction. The Architect/Consultant may by any certificate make any corrections required in previous certificate. The SBIIMS 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 and the minimum interval between two such bills shall be one month. 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.

37.0 Water Supply

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

- i) That the water used by the contractor shall be fit for construction purpose to satisfaction of the Architect/ consultant.
- ii) The contractor shall make alternative arrangements for the supply of water if the arrangement made by the contractor for procurement of water in the opinion of the Architect/ consultant is unsatisfactory.
- iii) The contractor shall construct temporary well /tube in SBI land for taking water for construction purpose 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 his original condition after well are dismantled on the completion of work or hand over the well to the SBI without any compensation as directed by the Architect /consultant.

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 at his own cost. The cost of running and maintenance of the plants are too included in his tender



prices. He shall pay all fees and charges required for the power supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approval from the appropriate authorities, if required.

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 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 proforma at site of work and should produce the same for inspection of SBI/MS/ 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 Price Variation

No price variation shall be applicable in this contract.

43.0 Force Majeure

43.1 Neither contractor nor SBI/MS/Employer shall be considered in default in performance of their obligations if such performance is prevented or delayed by events such as war, hostilities revolution, riots, civil commotion, strikes, lockout, conflagrations, epidemics, accidents, fire, storms, floods, droughts, earthquakes or ordinances or any act of god or for any other cause beyond the reasonable control of the party affected or prevented 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.

43.2 As soon as the cause of force majeure has been removed the party whose ability to 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.

43.3 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 cause itself and inability resulting there from having been removed, the agreed time of completion of the respective obligations under this agreement shall stand extended by a period equal to the period of delay occasioned by such events.

43.4 Should one or both parties be prevented from fulfilling the contractual obligations by a state of force majeure lasting to a period of 6 months or more the two parties shall mutually decide regarding the future execution of this agreement.

44.0 Local Laws, Acts, Regulations

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

- i) Minimum Wages Act, 1948 (Amended)
- ii) Payment of Wages Act 1936 (Amended)
- iii) 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 1963 and any other modifications
- viii) Employees' Provident Fund and Miscellaneous Provisions Act 1952 and amendment thereof
- ix) Shop and Establishment Act
- x) Any other Act or enactment relating thereto and rules framed there under from time to time.



- xi) Indian Electricity Act
- xii) Tariff Advisory Committee Manual

45.0 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 Employer. The contractor shall also report immediately to the competent authority whenever such report is required to be lodged by the law and take appropriate actions thereof.



SPECIAL CONDITIONS OF CONTRACT

1.0 Notice of operation

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

2.0 Temporary works

Before any temporary works are commenced the contractor shall submit at least 2 days in advance to the architect/ consultant for approval complete drawings of all temporary works he may require for the executions of the works. The contractor shall carry out the modifications relating to strength, if required by the architect / consultant in accordance with the conditions of the 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 quality of the permanent works resulting from the arrangement eventually adopted for their execution.

3.0 Office Accommodation

- a) The contractor shall provide and maintain all necessary offices, workshops, stores, shelters, sanitary facilities, canteens and other temporary structures for themselves in connection with the work at the site at their own cost after getting the approval from the Architect/ consultant.
- b) A site office for the use of SBIIMS/ architect/ consultant shall be provided by the contractor at his own expenses.
- c) All temporary buildings and facilities as mentioned above shall be removed on completion of the work or at any other earlier date as directed by the architect/ consultant.
- d) All the expenses for obtaining statutory approvals and maintenance of the above facilities as well as running expenses shall be borne by the contractor at no extra cost. It is also the responsibility of the contractor to obtain statutory approvals for providing the above facilities.

4.0 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.

5.0 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.



6.0 Fire fighting arrangements

- a) The contractor shall provide suitable arrangement for fire fighting at his own cost. For this purpose he shall provide requisite number of fire extinguisher and adequate number of buckets. Some of which are to be always kept filled with sand and some water. These equipments shall be provided at suitable prominent and easily accessible places and shall be properly maintained.
- b) Any deficiency in the fire safety or conditions shall be corrected by the contractor at his own cost and to the approval of the relevant authorities. The contractor shall make the following arrangements at his own cost but not limited to the following:
 - i) Proper handing, storage and disposal of combustible materials and waste.
 - ii) Work operations which can create fire hazards.
 - iii) Access for firefighting equipments.
 - iv) Type, number and location of containers for the removal of surplus materials and rubbish
 - v) Type, size, number and location of fire extinguishers or fire fighting equipment
 - vi) General housekeeping.

7.0 Site order book

A site order book shall be maintained at site for the purpose of quick communication between the Architect/ consultant/ SBIIMS. Any communication from one party to the other shall be deemed to 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/ SBI as and when demanded. Any instruction which the architect/ consultant/ SBIIMS 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 acknowledgement and the second copy will be retained for their record.

8.0 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 be held if required by the architect/ consultant /SBIIMS.



9.0 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 construction site or any other off-site activities borrow pits has been properly disposed off.

10.0 Contractor to verify site measurement

The contractor shall check and verify all site measurements whenever requested by other specialists contractors or other sub contractors to enable them to prepare their own shop drawings and pass on the information with sufficient promptness as will not in any way delay the works.

11.0 Displaying the name of the work

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

12.0 As built drawings:

- a. For the drawings issued to the contractor by the Architect/ consultant/SBIIMS. The architect consultant will issue two sets of drawings to the Contractor for the items for which some changes have been made. From the approved drawings as instructed by the SBIIMS/ Architect/ consultant. The contractor will make the changes made on these copies and return these copies to the architect/ consultant for their approval. In case any 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 incorporate these corrections and /or attend to discrepancies either on the copies as directed by the architect/ consultant and resubmit to him for approval. The architect/ consultant/SBIIMS will return one copy duly approved by him.
- b. For the drawings prepared by the contractor. The contractor will modify the drawing prepared by him wherever the changes are made by the SBIIMS/ Architect/ consultant. And submit two copies of such modified drawings to the architect/ consultant/SBIIMS for approval. The architect/ consultant will return one of the approved drawings to the contractor.

13.0 Approved make

The contractor shall provide all materials from the list of approved makes. The architect/ consultant may approve any make /agency within the approved list as given in the tender.



14.0 Procurement of materials

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

15.0 Tendered Rates / Amount

- a) **Price Bid : The Bidder has to submit online item wise rates and Grand Total Amount as per BOQ at annexure-III of this tender inclusive of all overhead, contractor's profit, the cost of materials/labours including all other costs, taxes, charges etc. and exclusive of GST only on work contract. GST on work contract will be paid extra as applicable. Item wise rates bid in " Online Sealed Price Bid" will be the basis of final order placement.**

16.0 Acceptance of tender:

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

17.0 Government and Local Rules:

The Contractor shall conform to the provisions of all local byelaws and Acts relating to the work and to the Regulations etc. of the Government and Local Authorities and of any company with whose system the structure is proposed to be connected. The contractor shall give all notices required by the said Act, Rules, Regulations and byelaws etc. and pay fees payable to such authority/ authorities for execution of the work involved. The cost, if any, shall be deemed to have been included in his quoted rates, taking encroachment and restorations etc. and shall indemnify the Employer against such liabilities and shall defend all action arising from such claims of liabilities.

18.0 Possession Prior to Completion

The Owner shall have the right to take possession of or use any complete or partially completed part of the work. Such possession or use shall not be an acceptance of any work not completed in accordance with the contract Agreement.

19.0 Tools, Storage of Materials, protective Works and Site Office Requirements

- a) The contractor shall provide, fix up and maintain in an approved position proper office accommodation for the Contractor's representative and staff which office shall be open at all reasonable hours to receive instruction notices or communications and clear away on completion of the work and make good all work disturbed.



- b) All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants, and other insects and made available to the Owner /architects for inspection or such other purposes they may require.
- c) The contractor shall provide at his own cost all artificial light required to complete the work within the specified time.
- d) The contractor shall provide a suitable temporary hut for the watchmen and clear away the same when no longer required and to provide all necessary attendance, lights etc. required.
- e) The contractor shall arrange for temporary latrines for the use of workers and field staff and keep the same in a clean and sanitary condition to the satisfaction of the public Health Authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall good all the work disturbed by the conveniences.
- f) Every precaution shall be taken by the Contractor to prevent the breeding of mosquitoes on the work during the construction and all receptacles, cisterns, water tank etc. used for storage of water must be suitably protected against breeding of mosquitoes. The contractor shall indemnify the owner against any breach of rules in respect of anti-malarial measures.
- g) The contractor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed in or upon any boarding gantry, building structure other than those approved by the SBI.

20.0 Protective Measures

The contractor from the time of being placed at the site must make suitable arrangements for watching lighting and protecting the work, the site and surrounding property by day, by night, on Sundays and other holidays.

The contractor shall indemnify the SBI against any possible damage to the building, roads, or member of the public in course of execution of the work.

The contractor shall provide necessary temporary enclosures etc. for the protection of the work and materials and for altering and adopting the same as may be required and removing on completion of the work and making good all work disturbed.

21.0 Storage of Materials:

The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of the materials etc. and other work that may be executed on the site including the tools and materials of nominated sub-contractors and remove same on completion.

22.0 Tools



All measuring tapes shall be of steel and suitable scaffolding and ladders that may be required for taking measurement shall be supplied by the Contractor.

The Mistries and the supervisor on the work shall carry with them always a one meter or two meter steel tapes and a measuring tape of 30 meters, a spirit level, a plumb bob and a square check the work to see that the work is being done according to the drawing and specifications. The site engineer will use any or all measuring instruments or tools belonging to the contractors as he chooses for checking the work executed or being executed on the contract.

The contractor should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc. by nominated sub-contractors for their work.

23.0 Removal of Improper Work

The SBIIMS/ Consultant shall during the progress of the work have power to order in writing from time to time the removal from the work within such reasonable time or times as may be specified in the order of any materials which in the opinion of the SBIIMS/ Consultant are not in accordance with specifications or instructions, the substitution or proper re-executed with materials or workmanships not in accordance with the drawings and specifications or instructions. In case the Contractor refuses to comply with the order the SBIIMS/ consultant shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the SBIIMS/ consultant shall be borne by the Contractor or may be deducted from any money to or that may become due to the contractor. No certificate which may be given by the consultant shall relieve the contractor from his liability in respect of unsound work or bad materials.

24.0 Dismissal of Workmen

The Contractor shall on the request of the SBIIMS/ Consultant immediately dismiss from work any person employed thereon by him, who may in the opinion of the SBIIMS/ Consultant be unsuitable or incompetent or who may misconduct himself. Such discharge shall not be the basis of any claim for compensation or damages against the SBIIMS/ Consultant or any of their officer or employee.

25.0 Concealed Work

The Contractor shall give not less than 5 days notice of the SBIIMS/ Architects whenever any work is to be buried in the earth, concrete or in the bodies of walls or otherwise becoming inaccessible later on in order that the work may be inspected and correct dimensions taken before such burial. In default whereof the same shall at opinion of the SBIIMS/ Architect be either opened up for measurement at the Contractor's expense or no payment may be made for such materials. Should any dispute or difference arise



after the execution of any work as to measurements etc or other matters which cannot be conveniently tested or checked, the notes of the SBIIMS/ Architects shall be accepted as correct and binding on the contractor.

26.0 Substitution

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the SBIIMS/Architects in writing for any such substitution well in advance. For materials designed in this specifications by such term as "Equal" or "other approved" etc. specific approval of the SBIIMS/ Architects has to be obtained in writing.

27.0 Preparation of Building Works for Occupation and Use of Completion

The whole of the work will be thoroughly inspected by the contractor and deficiencies and defects put right. On completion of such inspection, he shall inform the SBI that he has completed the work and it is ready for inspection.

On completion, the contractor shall clean all windows and doors including cleaning and oiling, if necessary, of all hardware, inside and outside, all floors, staircases every part of the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the SBIIMS.

28.0 Defects after Completion

The Contractor shall make good at his own cost and to the satisfaction of the SBIIMS all defects and other faults which may appear within 12 months after completion of the work. In default the SBIIMS may employ other persons to amend and make good such damages, defects etc. Expenses consequent thereon or incidental thereto shall be recoverable from the contractor by the SBIIMS from any money due to the contractor. In the event of the amount being insufficient the SBIIMS may recover the balance from the contractor, from the amount retained under Clause No. 1 (total security deposit) of General Conditions of Contract together with any expenses the SBIIMS may have incurred in connection therewith.

29.0 Idle Labour

Whatever the reasons may be, no claim for the labour, additional establishment cost of hire and labour charges of tools and plants would be entertained under any circumstances.

30.0 Guarantee for the Specialized Works

Wherever provision for submission of a guarantee has been advised, the same shall be submitted from the specialized agency along with a counter guarantee by the main contractor engaged for the work. The guarantee shall be furnished on a non-judicial stamp paper of appropriate value. If the contractor is required to submit guarantee/ guarantees for any items for a period of more than 12 months, the guarantee/



guarantees in case of those items shall remain valid even expiry of the defects liability period of 12 months as stipulated in the contract.

31.0 Safety Measures at Site

All personnel at site should be provided with Helmets and Safety Boots with some Identification Mark. Visitors also should be provided with Helmets. It should be ensured that these are used properly.

1. First Aid Box should be kept at site with all requisite materials.
2. No one should be allowed to inspect / work at a height without Safety Belt.
3. Suitable scaffolds should be provided for workmen for all Works that cannot safely be done from the ground, or from solid construction except such short period Work as can be done safely from ladders. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and if the ladder is used for carrying materials as well as suitable footholds and handholds shall be provided on the ladder and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 ($\frac{1}{4}$ horizontal and 1 vertical).
4. Scaffolding or staging more than 3.5 meters above the ground or floors, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached, bolted, braced and otherwise secured at least 1 Meter high above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
5. Working platforms, Gangways, and Stairways should be so constructed that they do not sag unduly or unequally, and if the height of the platform or the Gangway or the Stairway is more than 3-5 Meters above ground level or floor level they should be closely boarded, should have adequate width and should be suitably fenced, as described.
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 1 Meter.
7. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 Meters in length while the width between side rails in rung ladder shall in no case be less than 30cms for ladder upto and including Meters in length. For longer ladders this width should be increased at least 6mm for each additional 30 cms. Uniform step spacing shall not exceed 30cms.



8. Adequate precautions shall be taken to prevent danger from electrical equipments. For electrical on line works gloves, rubber mats, and rubber shoes shall be used.
9. All trenches 1.2 Meters or more in depth shall at all times be supplied with at least one ladder for each 30 Meters length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 1 Meter above the surface of the ground. The sides of the trenches, which are 1.5 Meters or more in depth shall be stepped back to give suitable slope, or securely held by timber bracing, so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 Meters of the edge of the trench or half of the depth of the trench whichever is more cuttings shall be done from top to bottom. Under no circumstances undermining or under cutting shall be done.
10. Before any demolition work is commenced and also during the process of the work :
 - a) All roads and open areas adjacent to the Work Site shall either be closed or suitably protected;
 - b) No electrical cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
 - c) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be so over-loaded with debris or materials as to render it unsafe.
 - d) All necessary personal safety equipment as considered adequate by the Site Engineer should be kept available for the use of the persons employed on the Site and maintained in a condition suitable for immediate use; and the Contractor should take adequate steps to ensure proper use of equipment by those concerned.
 - e) Workers employed on mixing Asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - f) f) Those engaged in white washing and mixing or stacking of cement bags or any materials which are injurious to the eyes shall be provided with protective goggles.
 - g) Those engaged in welding works shall be provided with Welder's protective eye-shields.
 - h) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
 - i) When workers are employed in sewers and manholes, which are in use, the Contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes and the manholes so opened shall be cordoned off with suitable



railing and provided with warning signals and boards to prevent accident to the Public.

11. Use of hoisting machines and tackle including their attachments, anchorage and support shall conform to the following standard or conditions:-

- a) These shall be of good mechanical construction, sound material and adequate strength and free from patent defect and shall be kept in good repairs and in good working order.
- b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
- c) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in-charge of any hoisting machine including any scaffold, winch or give signals to the operator.
- d) In case of every hoisting machine and of every chain ring hook, shackle swivel and pulley block used in hoisting or lowering or as means of suspension the safe working load shall be ascertained by adequate means.
- e) Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of hoisting machine having a variable safe working load, each safe working load of the conditions under which it is applicable shall be clearly indicated. No part of any machine or of any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
- f) Motor, Gearing, Transmission, Electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards, hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental descent of the load, adequate precautions should be taken to reduce to the minimum the risk of any part of a suspended load becoming accidentally displaced.
- g) When workers are employed on electrical installation, which are already energized, insulating mats, wearing apparel such as gloves, sleeves, and boots as may be necessary should be provided. The workers should not wear any rings, watches and carry keys or other materials, which are good conductors of electricity.

12. All scaffolds, ladders and other safety devices, mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use. Adequate washing facilities shall be provided at or near places of work.



32.0 Fire Safety Measure

Cutting / drilling machine and other electrically operated equipment used at site shall be plugged into correctly rated electrical outlets.

1. Only ISI marked 3 pin plug and other appliances and equipment shall be used.
2. Electrical power cables/wires used shall not have any joints and shall be properly rated.
3. All electrical appliances i.e. welding, drilling, cutting machine etc. shall be safely and securely earthed to prevent leakage current while in operation.
4. Before commencing the welding work, fire section shall be informed and required precautions should be taken.
5. Two buckets of water, sand and a fire cloth of suitable size shall be kept in an easily accessible area on the site.
6. Fire extinguishers recommended by fire officers shall be kept on the site.
7. Used paint drums shall be stored in specified store only after closing them properly.
8. Personal protective equipment such as safety shoes, hand gloves, welder's mask, ear plug etc. depending upon the requirement of the work shall be provided by the contractor to the workmen to prevent occupational health hazards.
9. The safety belt shall be provided by the contractor and used by the workmen while working from height for more than 10 Mtr. from Ground level.
10. None of the passages near lift lobby and staircases shall be used for stacking / dumping any kind of materials/waste.
11. Any debris/ waste generated from the work shall be collected on daily basis, removed from site and stored at the designated place in proper manner.
12. Battery operated emergency light/torches shall be provided by the contractor to the workmen while working beyond office hours.

13. 40. TECHNICAL SPECIFICATION / LIST OF MAKE OF AIR-CONDITIONERS

14.

15. 1. SPECIFICATIONS FOR INDOOR UNITS :-

16.

17. A. For Cassette type indoor units. :-

18.

19. These units shall be installed between the bottom of finished slab & top of false ceiling. The maximum allowable height for the cassette type units shall not exceed 350 mm. The unit shall be pre charged with first charge of R 32 / R 134A / R 407 / R 410A / R 290 refrigerant. The unit must have in built drain pump, suitable for vertical lift of 750 mm. The unit casing shall be Galvanized Steel Plate / or as per manufacturer's specifications. Unit must be insulated with sound absorbing thermal insulation material, Polyurethane foam. The noise level of unit at the highest operating level shall not exceed 42 dB(A), at a vertical distance of 1.5 m from the grille of the unit. Unit shall have provision of connecting fresh air without any special chamber & without increasing the total height of the unit (288 mm maximum). The unit shall be supplied with suitable decorative panel. The unit shall be supplied with Resin Net filter with mild Resistance. The filter shall be easy to remove, clean & re install. The unit will be connected in series to a suitable outdoor unit & it must be possible to Operate the unit independently, through corded/ cordless remote specified in the



“Bill of quantities”. The unit will be further connected to Intelligent Building Management System (To be supplied by other vendors) & it shall be possible to operate the unit through this IBMS system. The unit shall be supplied with following from the factory with following Operation Manual /Installation Manual .Paper pattern for installation Drain hose/ Clamp metal/ Washer fixing plate/ Sealing pads/ Clamps/ Screws/ Washer for hanging bracket/ Insulation for fitting.

20.

21. **B. Wall Mounted Units** :-Wall mounted units must be compact & stylish design that does not detract from the Décor of the room. The unit shall be pre-charged with first charge of R 32 / R 134A / R 407 / R 410A /R 290 refrigerant. Each indoor unit must have electronic expansion valve operated by microprocessor thermostat based temperature control to deliver cooling/ heating as per the heat load of the room. The unit must have provision of adding drain pump kit if required & specified. The drain pump must be suitable to lift drain up to 1000 mm from the bottom of the unit. Unit must be insulated with sound absorbing thermal insulation material, polystyrene/Polyethylene foam. The noise level of unit at the highest operating level shall not exceed 46 dB(A), at a vertical distance of 1.5 m from the grille of the unit. The unit shall be supplied with Resin Net filter with Mold Resistance. The filter shall be easy to remove, clean & re install. The unit grille must be washable with soap solution. It shall be possible to set minimum 5 steps of discharge angle by remote controller. It shall be possible to fit drain pipe from either side of the unit (Left or right). The unit will be connected in series to a suitable outdoor unit & it must be possible to Operate the unit independently, through corded/ cordless remote specified in the bill of quantities. The unit will be further connected to Intelligent Building Management System(To be supplied by other vendors) & it shall be possible to operate the unit through this IBMS system. The unit shall be supplied with following from the factory with following:

22. Operation Manual

23. Installation Manual

24. Installation panel

25. Paper pattern for installation

26. Insulation tape/ Clamps/ Screws

27. A – 1: COPPER TUBING :-

28. The parent material used for air – conditioning system refrigerant tubing should be Copper tubes, tubes and fittings conforming to following specifications:

29.

30. 1. Material composition should be conforming to C-1220 (JIS-H-3300) or C-12200 (ASTM).It should have a minimum Copper content of 99.9 % and Phosphorus content between 0.015 % and 0.040 %. It should have low residue (below 0.038 gm / sq mtr). The material should also be as per the RoHS norms specified by EU; that is, Mercury, Chromium and Lead contents below 1000 ppm, and Cadmium content below 100 ppm.

31. 2. Physical properties of the material should conform to JIS-H-3300 or ASTM-B-68 & B-75, should be tested for Tensile / elongation / hardness / grain size tests as per ASTM B – 280.

32. 3. Dimensional tolerance should be as per JIS-H-3300 or ASTM-B-251. The tubes should be tested using non-destructive Eddy current test before the final anneal, as per JIS- H-3300 or ASTM-E-243.

33. 4. Heat treatment should be carried out in non-oxidizing atmosphere to ensure oxygen free and Cuprous oxide-free surface.

34. 5. Proper certificates describing composition and results of all tests carried out must be supplied with each consignment. These certificates, along with check results for dimensional and thickness accuracy are recommended to be carried out for every delivered lot, should be maintained till handing over of the project.

35. 6. Tubes should have 360 degree concentric wall thickness along their entire length.



- 36.
37. 7. Wall thickness for soft tubes (bright annealed mirror finish) should be 0.8 mm for 1/4", 3/8" & 1/2" tubes, 1.0 mm for 5/8" tubes, 1.2 mm for 3/4" tubes. Wall thickness for hard tubes should be 1 mm for 7/8", 1" and 1.1/8" tubes, 1.1 mm for 1.1/4", 1.2 mm for 1.3/8" and 1.3 mm for 1.5/8" tubes.
- 38.
39. 8. Wall thickness for elbows and fittings should be minimum 0.2 mm more than corresponding tube / tube size.
- 40.
41. 9. For 1/4" to sizes up to 3/4", pulley type benders should be used for soft tubes and brazed joints should be avoided as far as possible. Similarly, for half hard tubes of size 3/4" or more, one side expanded tubes must be used and use of couplings should be avoided as far as possible.
- 42.
- 43. A -2 : TUBING DESIGN:**
- 44.
45. 1. Contractor should study the tender / GFC drawings carefully, and should carry out detailed survey of site, relating the drawings with site, and understand the system design and site limitations.
- 46.
47. 2. Contractor should also collect final architectural and reflected ceiling plans from client and study the drawings for any mismatches with the HVAC drawings received.
48. 3. Contractor should discuss any such mis-matches and any doubts regarding system design with the consultant and get all doubts clarified.
- 49.
50. 4. Before commencement of tubing work, proper shop drawings must be generated by the contractor, and same should be got approved from the consultant. The drawings must clearly indicate schematic flow diagrams for various circuits, tube sizes, description and quantities for refrigerant joints, indoor and outdoor unit models and room / block /floor names, tube routes, levels for horizontal tubes, details regarding insulation type and thickness and surface treatment for insulation, typical and critical sections and any other details to explain the entire tubing layout to the installer.
- 51.
52. 5. Tube sizing and routing must be carried out taking into consideration various site constraints and system manufacturer's recommendations.
- 53.
54. 6. Care should be taken to design tubing as per the manufacturer's recommendation for maximum tubing total length, maximum tubing length after first tapping, vertical height difference between outdoor and indoor units etc. and necessary corrections should be carried out in outdoor unit capacity if required.
- 55.
- 56. A - 3 : REFRIGERANT TUBING INSTALLATION WORK:**
- 57.
58. 1. The installer must first study the shop drawings in detail with respect to the site condition and point out any fouling / alternatives to the agency prepare shop drawing and necessary revisions must be carried out in the drawings, to be approved by consultant.
- 59.
60. 2. The layout must be marked on the true ceiling and any civil openings required should be marked and got done from concerned agency.
- 61.
62. 3. Supports as described in BOQ / specifications should be installed, leaving adjustable free length for supports.
- 63.
64. 4. Before installation, the tubes and tubes must not be removed from their original packing. Proper storage of tubing is a must to maintain the temper of the tubes / tubes. Any abrasion on ends / surface, or any in grace of dirt / dust must be avoided. Proper Polyethylene sheets should



be used for covering the tubes and tubes, while wooden pellets and soft expanded Polyethylene / rubber sheets should be used as floor supports

- 65.
66. 5. Necessary loops / slopes must be followed as recommended by system manufacturer.
- 67.
68. 6. Tubes must be cut to required sizes using cutting tools recommended by system manufacturer.
- 69.
70. 7. Using proper quality of brazing set, Oxygen / Acetylene and Copper brazing rods having minimum 2% Silver content.
- 71.
72. 8. During brazing, Nitrogen must be filled in the Copper tubing at a mild positive pressure and must be kept bleeding out continuously, to prevent any oxidation of parent material.
- 73.
74. 9. After tubing work, each circuit should be pressure tested as per the system manufacturer's recommendation and as per the procedure described in the following paragraphs. A certificate mentioning the test pressure, time of first and final pressure readings, make, model, serial number, range and least count of the gauge used, along with a copy of valid calibration certificate must be maintained, duly signed by the inspecting technician, and client /PMC representative.
75. 10. After pressure testing, insulation must be completed as per the material, make and thickness mentioned in the approved shop drawing. The joints of insulation must be sealed by
76. minimum 50 mm wide Aluminium adhesive tape. Care should be taken to avoid any air gaps between tube / tube and insulation sleeves, and between two insulation sleeve joints.
- 77.
78. 11. Proper tagging must be carried out to trace the tubing to respective indoor and outdoor circuits.
- 79.
80. 12. The tubes exposed to sunlight must be covered / cladded / treated to prevent damage from UV radiation and bird pecks / tampering, as mentioned in the BOQ. The cladding should be made out of 26 G Aluminium sheet or G.S.S. sheet. While cladding, care should be taken to avoid penetrating the insulation by screws. Short screws Of metallic straps should be used for securing cladding sheets. Instead of cladding, glass cloth, with two coats of protective resin should be used.
- 81.
82. 13. While charging refrigerant, manufacturer's recommendations must be strictly followed, and charging must be carried out using proper charging hose, gauge manifold with calibrated gauges and electronic weigh scale. Further leak check using a gas leak detector should be carried out. Charging must be carried out after proper evacuation of the tubing. The quantity of refrigerant to be charged should be calculated by totalizing the liquid tube volume as per the manufacturer's recommendation.
- 83.
84. **A – 4 : RECOMMENDATIONS FOR PRESSURE TESTING:**
- 85.
86. Refrigerant tubes carry refrigerant at pressures different from atmospheric pressure. When pressure inside tubes is more than atmospheric pressure, refrigerant may escape to the atmosphere, causing commercial loss due to loss of refrigerant, inefficient system performance or even system breakdown and contamination of surroundings. When pressure inside the tubes is less than atmospheric pressure, such as in case of suction tubes of some low temperature refrigeration machines, or during pump-down cycle of normal air-conditioning systems, leakages in tubes leads to ingress of air and moisture, causing severe system damage. Therefore, it is a must that the refrigerant tubing isthoroughly tested for leakages. Pressure testing for any tubing must be carried out at a pressure higher than the maximum operating pressure within the system. It is recommended that the pressure recommended by manufacturer be followed very strictly. Testing at lower pressures may lead to non-detection of some small leakages, while testing at higher pressures may lead to damage to some factory manufactured components within the system. Generally, for R-410 systems a pressure of around 650psig is used. Nitrogen is the most



common gas used for carrying out pressure testing. It has numerous advantages, some of which are listed below:

87. 1. Nitrogen is easily available as a commercial gas packed in easy to handle cylinders.
- 88.
89. 2. Nitrogen, being the most abundant component of the atmosphere, is safe for leaking out without contaminating the atmosphere.
- 90.
91. 3. Nitrogen is less costly as compared with other gases.
- 92.
93. 4. Nitrogen is safe for handling and testing.
- 94.
95. 5. Nitrogen does not readily react with system components Pressure gauge/s used for testing must be calibrated and a calibration certificate with traceability to a Government(National) Physical Laboratory must be documented. The gauge should be capable of measuring pressure at least 10% above the reading to be recorded.

96.

97. **A – 5 : PROCEDURE FOR CARRYING OUT PRESSURE TEST**

98.

99. 1) Ensure that the tubing to be tested is properly secured/supported and the openings have been sealed off as per manufacturer's recommendation.
- 100.
101. 2) Install pressure gauge/s at strategic location/s where it shall not be tampered with, at the same time, should be easily visible.
- 102.
103. 3) Install a valve and connecting tubing so that the open end of the tube reaches the cylinder outlet without moving the cylinder.
- 104.
105. 4) Connect the tube to the cylinder and after ensuring proper connection, crack open the cylinder valve, keeping an eye on the pressure gauge. Let the pressure rise to around 10 psig.
- 106.
107. 5) Check for proper sealing of all flanged / flare nut joints or valves/ valve glands looking for noise of escaping Nitrogen and seal same.
- 108.
109. 6) Open the cylinder valve again and raise the pressure to 200 psig.
- 110.
111. 7) Check the tube line for major leakages at brazed joints, elbows, valve glands, equipment end connections and tube seams with the help of soap water. Make up the leaks by tightening nuts. If the leaks are in brazed joints, flush out Nitrogen and carry out necessary re-brazing.
- 112.
113. 8) Open the cylinder valve again and increase the pressure to 150 psig less than the final test pressure. Repeat leak check as above.
- 114.
115. 9) Open the cylinder valve again and slowly raise the pressure to the manufacturer recommended pressure. Carry out a thorough leak check.
- 116.
117. 10) Record the pressure and time. Let the pressure stand for 24 hours without tampering. Check the pressure again after 24 hours. If pressure has dropped, the tubing should be checked very thoroughly for minor leakages. It is important to follow this 24 hours period as it gives enough time to detect minute leakages, and it removes the doubt created by thermal expansion of Nitrogen (as after exact 24 hours, ambient conditions are generally same).
- 118.
119. 11) In case of tubing extending to lengths more than 30 m and / or having more than 20 site fabricated joints, the pressure should be recorded after 24 hours as well as after 48 hours, so that all leakages are detected and made up.



- 120.
121. 12) After detecting and making up any leak, the pressure testing must be carried out once again from beginning.
- 122.
123. **A – 6 : DOCUMENTATION RECOMMENDED FOR ENSURING PROPER QUALITY ASSURANCE:**
- 124.
125. 1. Manufacturer's certificate with every Delivery Challan declaring composition of parent material .
- 126.
127. 2. Signed and approved Shop drawings approved by SBIIM / Client / Consultant, prior to start of work.
- 128.
129. 3. Pressure test report signed by SBIIM / Client / Equipment manufacturer / Consultant.
- 130.
131. 4. False Ceiling closure check list duly signed by SBIIM / Client / Equipment manufacturer/ Consultant.
- 132.
133. GENERAL:
134. ACR GRADE COPPER TUBES AND FITTINGS : SIZES AND SPECIFICATIONS
135. Tube material Specification :
136. (CFC- free refrigerant compatible tubes produced using Total loss lubricants)
137. 1. De-oxidized High Phosphorized copper (DHP grade) raw material, with Chemical Composition of Copper = 99.9 % ; Phosphorus = 0.015 to 0.040 %
- 138.
139. 2. RoHS Compliant
- 140.
141. 3. 360 degree concentric Wall thickness along the entire length of the tubes
- 142.
143. 4. Half hard drawn copper tubes should confirm to ASTM B75/ASTM280 (C12200) / JIS H:3300(C1220) / BS2871 part 3 (C106). Use Half Hard Temper Type for tube sizes above 19.1 mm.
- 144.
145. 5. Soft copper tubes, bright annealed (mirror finish) should confirm to ASTM B68 / JIS H:3300
- 146.
147. 6. Super clean quality with low residual content below the permissible levels of 0.038 g/m² for compatibility with use of CFC-free refrigerant.
- 148.
149. 7. 100 % Eddy Current Tested Tubes are to be used
- 150.
151. 8. Proper packaging, Storage and Traceability of the tubes.
- 152.
153. Use Soft tube only for Indoor Unit Connection
154. INSULATION TO REFRIGERANT PIPING:
155. FR nitrile rubber / cross linked closed cell polyethylene tube insulation of 13mm upto 1" dia pipes and 19mm thick for 1" and above shall be used for copper piping both for suction line and liquid line. All joints shall be sealed with self-adhesive tape or with heat.



156. **A-7. COMMUNICATION CABLE AND CONTROL CABLING:**
157. Communication cable and control cabling: Communication cable and control cabling should be of non-polar shielded 2 core cable shall be laid in 20 mm dia PVC conduits of required size. PVC conduit should be clamped neatly maintaining a distance from power cables, Cable terminations and dressing shall be done properly and neatly.
- 158.
159. **A-8 : DRAIN PIPING:**
- 160.
161. PVC drain piping shall be used for the drain piping. Proper care shall be taken to lay the drain piping with sufficient slope and should be clamped or supported at 1.5 m interval. All drain pipe joints shall be done with adhesive. Drain piping should be tested for leaks before commissioning. After testing for leaks, drain pipe shall be insulated with 9 mm thick nitrile rubber tube insulation. Insulation shall be finished with self-adhesive black cotton tape.
162. Indian Seasonal Energy Efficiency ratio(ISEER): 5.2
163. Star Rating : 5 star/as per BOQ
164. Compressor Type : Hermetic Rotary DC Inverter
165. Comprehensive Product warranty: 3 Years
166. Compressor Warranty : 5 years
167. **List of Make of Air-Conditioners -**
- 168.
169. 1. Voltas.
170. 2. Blue Star .
171. 3. Carrier.
172. 4. Daikin
173. 5. LG
174. 6. Hitachi
175. 7. Godrej



FORMAT OF BILL
(in M.S. Excel Format)

- 1) Name of contractor/Agency :
- 2) Name of work :
- 3) Sr. No. of this bill :
- 4) No. and date of previous bill :
- 5) Reference to Agreement No. :
- 6) Date of written order to commence :
- 7) Date of completion as per agreement :

Sl. No.	Item Description	Unit	Rate(Rs)	As per tender	
				Qty	Amount(Rs)

Up to previous R/A Bill		Up to Date (Gross)		Present Bill		Remark
Qty	Amount(Rs.)	Qty	Amount(Rs.)	Qty	Amount(Rs.)	

Note:

1. If part rate is allowed for any item, it should be indicated with reasons for allowing such a rate.
2. If adhoc payment is made, it should be mentioned SpeciallyNet value since Previous bill.



III. CERTIFICATE

The measurements on the basis of which the above entries for the running Bill No..... made have been taken jointly on and are recorded at pagesto Of measurement book no./Sheets

Signature and date of
Contractor

Signature and date of
Architect's representative

Signature and date of
Engineer of SBIIMS

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

Architect

Site Engineer/Bank's Engineer



IV – MEMORANDUM FOR PAYMENT

R. BILL NO

1. Total amount due since previous bill (D) (A+B) Rs.....
2. PVA on account of escalation in price of steel
cement and other materials and labour as detailed
in separate statement enclose Rs.....
3. Deductions:
- a. Secured Advance paid in the previous R.A. Rs.
- b. Retention money on value of works as per
accepted tenders: up to date amount
Less: Already recovered (-) Rs.....
Balance to be recovered Rs.....
- c. Mobilization advance, if any
- i. Outstanding amount (Principal + Interest)
as on date Rs.....
- ii. To be recovered in this bill Rs.....
- iii. Any other departmental material cost
to be recovered as per contract, if any Rs.....
- iv. Any other departmental service charges to be
recovered if any, as per contract (Water, power etc.)
Enclose statement Rs.....
4. Total deduction as per contractor Rs.....
5. Net amount payable as per Contract (E-F) Rs.....

(Rupees.....) in words.



This bill amounting to(both figures and words) has been scrutinized by me after due test check of the measurement of works as required and as recommended for payment.

Dated Signature of Bank's Engineer

In charge of the project

STATUTORY DEDUCTIONS:

- | | |
|-----------------------------|---------|
| 1. Total amount due (E) | Rs..... |
| 2. Less: Income Tax Payable | Rs..... |
| 3. Net Payable | Rs..... |

The figure in the Memorandum for Payment has been verified and the bill passed for payment Rs.....(Words and figures)

Date:

Signature of Premises officer



DETAILS OF INSURANCE POLICIES

Type of Polices	Name of Insurance	Amount (Rs.)	Policy No.	Validity
-----------------	-------------------	--------------	------------	----------

Workmen's Compensation

Remarks:

1. This only an 'on -account' payment and is not be interpreted either as approval of work, materials brought or affixed at site or for that matter approval of any sort.
2. The quantum of work done and materials delivered at site have been certified by
3. Should you wish to audit such work, kindly contract the undersigned and oblige.



PROFORMA OF HINDRANCE REGISTER

Name of Work : Date of state of work:

Name of Contractor : Period of completion:

Agreement No. : Date of completion:

Sr. no.	Nature of hindrance	Date of occurrence of hindrance	Date of which hindrance was removed	period of hindrance	Signature SE/PE	Remarks
1	2	3	4	5	6	7

SE = Site Engineer

PE = Project Engineer



MAINTENANCE OF RECORDS

A) Registers at the site office of the Bank's Engineer:

1. Measurement Books
2. Drawing register
3. Materials and site register
4. Hindrance Register
5. Site visit & instructions Register.



PROFORMA FOR APPLICATION BY CONTRACTOR FOR EXTENSION OF TIME

1. Name of Contractor:
2. Name of the work as given in the Agreement
3. Agreement WO
4. Tender amount
5. Date of commencement of work
6. Period allowed for completion as per agreement
7. Date of completion as per agreement
8. Period for which extension of time has been given

Date

Month

Year

- a) 1st extension vide Bank's letter no.
- b) 2nd extension vide Bank's letter no.
- c) 3rd extension vide Bank's letter no.

9. Reasons for which extension have been previously given (copies of the previous applications should be attached)
10. Period for which extension is applied for and the reasons thereof including hindrances, time for extra work assigned if any etc.

Signature of Contractor



Annexure II

To
e-Procurement Technologies Ltd. (ProcureTiger)
A-201- 208, Wall Street-II, Opp. Orient Club,
Nr. Gujarat College, Ahmedabad-380 006,
Gujarat, India.
Tel: (079) 40016837 / 835
Fax: (079) 40016876

Sub: E- TENDERING FOR AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide TENDER ID G UW202007004 DATED 06.07.2020

Ref : 1 _____

2. E-Tendering dt.

3. Our Offer No. _____ dt.

Dear Sir,

We confirm that we have quoted.

1. _____

as our final GRAND TOTAL price as per the itemwise quoted rates during the E-Tendering for Price Bid conducted today.

Thanking you and looking forward to the valuable order from SBI.

Yours sincerely,

For _____

Name:

Company:

Date:

Seal:



**AIR-CONDITIONING WORK AT GUWAHATI BRANCH Vide TENDER ID
GUW202007004 DATED 06.07.2020**

BREAK-UP OF QUANTITIES (BOQ)

(AS AT ANNEXURE-III IN SEPARATE ATTACHMENT FILE)