



## Part – I

(Technical Bid)

**TENDER FOR AIR-CONDITIONING WORKS OF RACPC AT 4<sup>TH</sup>  
FLOOR, ADMIN. OFFICE, Unit-1, BHUBANESWAR.**

(E-tender)

**Tender No. BHUAOIAC202102**

Dated 20.07.2021

Manufacturers / approved authorized dealers of (Daikin, Carrier, Blue Star, Mitsubishi Heavy & Mitsubishi Electric, Toshiba, O-General, LG, Trane, Hitachi, Panasonic and Voltas) are eligible to participate.

**TENDER SUBMITTED BY:**

NAME : \_\_\_\_\_

ADDRESS : \_\_\_\_\_

\_\_\_\_\_

GSTIN NO : \_\_\_\_\_

DATE : \_\_\_\_\_



## **NOTICE INVITING TENDERS**

SBI invites online tender for Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar from Manufacturers / approved dealers of approved Air-Conditioning manufacturers are eligible to participate in this tender. Vendor/Contractor should possess valid digital signature for this e-tender.

The other details of the tender are as under:

1.	<b>Name of Work and location of work.</b>	Air-conditioning works of RACPC at 4 <sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar
2	<b>Eligibility of criteria</b>	From Manufacturers / approved dealers of Daikin, Carrier, Blue Star, Mitsubishi Heavy & Mitsubishi Electric, Toshiba, Trane, O-General, LG, Voltas, panasonic and Hitachi are eligible to apply, Proof of following document to be submitted. (i) <u>Copy of valid dealership certificate.</u> (ii) <u>Copy authorization letter from manufacturer for participation in this tender.</u>
3	<b>Estimated amount including CAMC of 3 years.</b>	<b>Rs.6,53,500.00</b> (Rupees Six lakh Fifty Three Thousand Five Hundred Only) plus GST
4	<b>Earnest Money Deposit (EMD) / One Time EMD</b>	<b>Rs.6500/-</b> (Rupees Six Thousand Five Hundred Only) in the Form of Demand Draft/Banker's Cheque issued by any Nationalised /Scheduled Bank Drawn in favour of "SBI" Payable at <b>Bhubanewar,</b> " which is to be submitted in original in a separate envelope superscribing "EMD". Without EMD, the tender will be rejected. EMD shall be converted into SD for successful Contractor, whose tender is accepted.
5	<b>Initial Security Deposit (ISD)</b>	L1 vendor shall submit, 2% of awarded value of work including EMD in form of DD/BC/FDR favouring "State Bank of India" payable at <b>Bhubaneswar</b> within 7 days of receipt of "letter of intent" or "work order."
6	<b>Retention Money</b>	The successful (L1) Contractor/vendor, whose tender is accepted by the Bank, shall be bound to deposit a sum equivalent to 5% of accepted "Final value of the work" including ISD as Retention Money till the end of Defect Liability period.
7	<b>Availability of Tender document.</b>	<b>From 20.07.2021 to 28.07.2021</b> at service provider website <a href="https://etender.sbi">https://etender.sbi</a> .
8	<b>Last date, time and place for submission of online Technical Bid.</b>	The approved OEMs or their authorized dealers are required to submit/enclose the copies of following document online or before <b>Dt.28.07.2021 up to 02:00 PM.:</b> a) Earnest Money Deposit (EMD) or valid MSME/NSIC certificate b) Letter of Undertaking in company letter head duly signed and stamped by authorize representative c) Copy of valid dealership certificate. d) Copy authorization letter from manufacturer for participation in this tender  However, <u>the physical EMD to be submitted on or before last date &amp;</u>



		<p><u>time in sealed envelope at our SBI office address mentioned below.</u></p> <p>AGM (RACPC) SBI, Admin. Office, 4<sup>th</sup> Floor, Unit-1, Bhubaneswar E-mail: racpc.bhubaneswar@sbi.co.in Ph- 8374332299</p> <p><u>Tenders received without any one or more document mentioned above shall be rejected.</u></p> <p>After the accomplishment of tendering procedure, the successful bidder shall submit the hard copy of the Technical document duly signed with seal in all pages by the authorized representative/proprietor of the firm at the under mentioned office.</p>
09	<b>Last date, time and Mode of submission of Online Price Bid</b>	The Price Bid to be uploaded/submitted online on service provider portal i.e <a href="http://www.tenderwizard.com/SBI ETENDER">www.tenderwizard.com/SBI ETENDER</a> on or before <b>Dt. 28.07.2021 up to 14:00Hrs.</b>
10	<b>Date, Time and Place of opening of Online Technical Bid.</b>	<b>Online Technical bid (Part-1) at our Office: At 15:00 Hrs on Dt. 28.07.2021</b>
11	<b>Date, Time and Place of opening of Online Price Bid.</b>	The online Price bid (Part-2) of only technically qualified bidder shall be <u>opened</u> at our office on <b>28.07.2021 at 16:00 Hrs.</b>
13	<b>Validity for Offer</b>	3 (Three) Months from The Date of Opening of Price-Bid
14	<b>Commencement of Work.</b>	7th Day from the date of receiving of Work Order or handing over of site whichever is earlier
15	<b>Time for completion of work.</b>	<b>30 (Thirty) days</b> from date of Commencement or handing over of site, whichever is earlier.
16	<b>Deduction of income tax and GST</b>	<p>A) Income Tax will be deducted at source as per Govt. Guidelines. B) Reimbursement of GST will be made only on submission of proper GST invoice as per applicable GST provision. The contractor should comply with the following.</p> <ol style="list-style-type: none"> <li>1. Contractor should have valid GST Registration Number</li> <li>2. Invoice should specifically/separately disclose the amount of GST levied at applicable rate as per GST provision</li> <li>3. In case of Correction in the bills after scrutiny, contractor should submit fresh GST invoice/bill for processing payment by the Bank.</li> <li>4. 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</li> </ol>



17	<b>Terms and Mode of payment</b>	<p>i) No advance on materials / plant / machinery or mobilization advance shall be paid under any circumstances</p> <p>ii) After successful completion of entire work balance or 100% payment will be released against submission of tax invoice and work completion certificates.</p> <p>iii) Payment shall be made by way of Electronic fund transfer and the bill will be paid by the SBI. Firm should furnish details of the bank, A/c no, IFSC code.</p> <p>iv) Payments towards the above work shall be made by SBI. The GST Number of State Bank of India for Bhubaneswar is 21AAACS8577K1Z1</p>
18	<b>Liquidated Damages for Delay</b>	If the bidder is not able to complete the work within stipulated time/days in line to this contract from date of issue of the work order, LD shall be imposed at the rate 0.5 % Per week for delay subject to maximum amount of 5% of Contract Value.
19	<b>Defects Liability Period</b>	12 Months ( Twelve months)
20	<b>For any details contact: Service Provider</b>	<b>Kushal Bose</b> <b>Antares Systems Ltd.</b> <b>Mob.+91 7686913157</b> <b>Email: kushal.b@antaressystems.com</b>
21	<b>For any Technical Queries.</b>	Tapan Kumar Behera, Ph-9867991919

- i. In case the date of opening of tenders is declared as a holiday, the tenders will be opened on the next working day at the same time.
- ii. 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 e tender. The validity of the DSC should be at least 3 months.
- iii. SBI reserves the right to increase or decrease the quantum of items/ services/ manpower to be provided and also reserves the right to reject, cancel or revise or accept any or all the tenders or part of tenders without giving any reasons thereto.
- iv. SBI reserves its rights to accept/reject any/all tender without assigning any reasons whatsoever and to increase or decrease the quantities of any item and contractor has to execute the same at the rate quoted and no correspondence shall be entertained in this regard.
- v. The L-1 Vendor (successful bidder) shall sign and stamp each page of the tender document thereby ensuring the number and sequence of all pages after completion of the tendering procedures.
- vi. Conditional tenders are liable for rejection.

**AGM**

**RACPC, Bhubaneswar**



## **BUSINESS RULES FOR ONLINE TENDER GENERAL TERMS AND CONDITIONS OF ONLINE TENDER**

1. For the proposed online bidding, already empaneled vendors with SBI under appropriate category who fulfill all terms and conditions including deposit of earnest money/One time EMD only shall be eligible to participate.
2. SBI will engage the services of a service provider who will provide all necessary training and assistance before commencement of online bidding on Internet.
3. SBI will inform the vendor in writing in case of online bidding, the details of service provider to enable them to contact and get trained.
4. Business rules like event date, time, start price, bid decrement, extensions, etc. also will be communicated through service provider for compliance.
5. Vendors have to fax / email the compliance form in the prescribed format (provided by service provider) before start of online bidding. Without this the vendor will not be eligible to participate in the event.
6. Opening of online bids will be conducted on schedule date & time.
7. At the end of online bidding event, 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 SBI through service provider within 24 hours of completion of tender 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 vendor to conduct business with SBI as per prevailing procedure.
10. In case SBI decides not to go for online bidding on procedure for this tender enquiry, the price bids and price impacts, if any already submitted and available with SBI shall be opened as per SBI standard practice.
11. Business Rule for finalization of the Tender

SBI shall finalize the tendering process of the item through online bidding mode. SBI has made arrangement with **Antares Systems Ltd.**, ( e-Tendering Agency (ETA) who shall be SBI's authorized service provider for the same. Please go through the guidelines given below and submit your acceptance to the same along with your Commercial Bid.

1. Computerized Online tendering shall be conducted by SBI, on pre-specified date, while the vendors shall be quoting from their own offices/ place of their choice. Internet connectivity and other paraphernalia requirements shall have to be ensured by vendors themselves. In the event of failure of their Internet connectivity, (due to any reason whatsoever it may be) it is the bidders responsibility / decision to send fax communication, immediately to ETA furnishing the price, the bidder wants to bid online, with a request to ETA to upload the faxed price on line so that the service provider will up load that price on line on behalf of the Bidder. It shall be noted clearly that the concerned bidder communicating this price to service provider has to solely ensure that the fax message is received by ETA in a readable / legible form



and also the Bidder should simultaneously check up with ETA over phone about the clear receipt of the price faxed. It shall also be clearly understood that the bidder shall be at liberty to send such fax communications of prices to be uploaded by ETA only before the closure of Bid time and under no circumstances it shall be allowed beyond the closure of bid time. Such bidders have to ensure that the service provider is given a reasonable required time by the bidders, to upload such faxed prices online and if such required time is not available at the disposal of ETA at the time of receipt of the fax message from the bidders, ETA will not be uploading the prices. It is to be noted that either SBI or ETA are not responsible for these unforeseen circumstances. In order to ward-off such contingent situation, bidders are requested to make all the necessary arrangements / alternatives whatever required so that they are able to circumvent such situation and still be able to participate in the online bidding successfully. However, the vendors are requested not to wait till the last moment to quote their bids to avoid any such complex situations.

2. ETA shall arrange to train your nominated person(s), without any cost to you. They shall also explain you, all the Rules related to the Tendering/ Business Rules Document to be adopted along with bid manual. You are required to give your compliance on it before start of bid process.

3. **BIDDING CURRENCY AND UNIT OF MEASUREMENT:** Bidding will be conducted in item rate quoted in Indian Rupees (INR) per -one- (Unit) of the items as mentioned in Price Bid/ BOQ.

4. **BID PRICE:** The Bidder has to quote item rate in Schedule of Quantities ; bidder is willing to execute the work inclusive of all taxes, duties, freight, service tax, overhead, contractor's profit etc. excluding GST. GST shall be paid extra as per actual.

5. **VALIDITY OF BIDS:** The Bid price shall be firm for a period of three calendar months from the date of acceptance of tender which may be extended for a further period subject to mutual agreement.

6. The bidder has to submit a detail break up for his commercial offer in the prescribed format as given by the Bank duly signed by their authorized representative/proprietor.

7. Your bid will be taken as an offer to supply. Bids once made by you, cannot be cancelled / withdrawn and you shall be bound to supply as mentioned above at your final bid price. In case you back out and not execute the work as per the rates quoted, the earnest money deposited by you retained by us in this regard shall be forfeited without further reference to you.

8. You shall be assigned a Unique Username & Password by ETA. You are advised to change the Password after the receipt of initial Password from ETA to ensure confidentiality. All bids made from the Login ID given to you will be deemed to have been made by your company.

9. At the end of the online Tendering process, SBI will decide the successful bidder. SBI's decision on award of Contract shall be final and binding on all the Bidders.

10. SBI shall be at liberty to cancel the tender at any time, before ordering, without assigning any reason, there to.



11. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.

12. Other terms and conditions shall be as per your techno-commercial offers and other correspondences till date.

13. You are required to submit your acceptance to the terms / conditions / modality given above before participating in the online bidding.

14. Successful bidder shall enter into a contract with the bank to carry out the work as per Bank's standard format.

15. OTHER TERMS & CONDITIONS: - The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers / bidders. - The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party. - SBI's decision on award of Contract shall be final and binding on all the Bidders. - SBI along with ETA can decide to extend, reschedule or cancel any tender. Any changes made by SBI and / or ETA, after the first posting will have to be accepted if the Bidder continues to access the site after that time. - ETA shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause. - ETA 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 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 e-Tendering agency before due date. - After the completion of the tender event, all the Bidders have to submit the Price Breakup immediately to e-Tendering agency for further proceedings.



Annexure I

**PROCESS COMPLIANCE FORM**

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

To

Date:

**Kushal Bose**  
**Antares Systems Ltd.**  
**Mob.+91 7686913157**  
**Email: [kushal.b@antaressystems.com](mailto:kushal.b@antaressystems.com)**

**SUB: AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ONLINE BIDDING**

Dear Sir,

*This has reference to the Terms & Conditions for the online bidding mentioned in the Tender for "Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar ". This letter is to confirm that:*

- 1) The undersigned is authorized representative of the company.*
- 2) We have studied the Commercial Terms and the Business rules governing the online bidding 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 tender tool and have understood the functionality of the same thoroughly.*
- 4) We confirm that SBI Group and ETA shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-tender platform due to loss of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the tender event.*
- 5) We understand that in the event we are not able to access the tender site, we may authorize ETL to bid on our behalf by sending a fax containing our offer price before the tender close time and no claim can be made by us on either State Bank Group or ETA regarding any loss etc. suffered by us due to acting upon our authenticated fax instructions.*
- 6) I/we do understand that ETA 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 & break up of our quoted price as per Annexure II and the format as requested by SBI / ETA.*
- 9) We, hereby confirm that we will honor the Bids placed by us during the tender process.*





10) We read each page, understood the technical bid & BOQ and I/we hereby agree to abide by and fulfill the terms and provisions and accepting all terms and conditions stipulated in the tender documents. After the accomplishment of tendering procedure, if we become the lowest bidder shall submit the hard copy of the Technical document duly signed with seal by the authorized representative/proprietor of the firm at the under mentioned office

We hereby confirm that we will honor the Bids placed by us during the tender process.

With regards

Signature with company seal

Date:

Name:

Company / Organization



**PRICE CONFIRMATION LETTER (ANNEXURE II)**

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

To,

**Kushal Bose**  
**Antares Systems Ltd.**  
**Mob.+91 7686913157**  
**Email: [kushal.b@antaressystems.com](mailto:kushal.b@antaressystems.com)**

**AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ONLINE E-TENDERING FOR AIR-CONDITIONING WORKS OF RACPC AT 4<sup>TH</sup> FLOOR, ADMIN. OFFICE, UNIT-1 BHUBANESWAR.**

E-tendering Auction Date:

Dear Sir,

We confirm that we have quoted.

----- (Rs.-----)

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

Yours sincerely,

For \_\_\_\_\_

Name:

Company:

Date:

Seal:



## ARTICLES OF AGREEMENT

This AGREEMENT is made at ..... on this ..... day of ..... between SBI, a body Corporate created under SBI Act 1955, having its Corporate Centre at State Bank Bhavan, Madame Cama Road, Mumbai 400 021 and one of the circle office at SBI Local Head Office, III/1 Pandit Jawaharlal Nehru Marg, Bhubaneswar- 01 represented by authorized officer of SBI. (hereinafter called "the Employer") on the one part and M/s \_\_\_\_\_ (proprietorship/partnership firm/Company), incorporated under the provisions of the Companies Act and having its registered office at \_\_\_\_\_ (hereinafter called "the Vendor") represented by Shri ..... who is authorized to enter this agreement by its Board of Directors on the other part.

AND WHEREAS the Employer has intention of engaging an empaneled Contractor under SBI for execution of " **Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar**"

AND WHEREAS the Employer had called for tenders from Air-conditioner vendors or their authorized dealers for the proposed work as indicated in the scope of work and other documents attached to the tender.

AND WHEREAS the Vendor and others submitted the tenders and the Employer has awarded the contract relating to "**Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar**" as stated in the scope of work attached to the Tender Document to the Vendor.

AND WHEREAS both the parties to this agreement are desirous of recording the terms and conditions upon which the said services are to be rendered by the Vendor.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said Contract Amount to be paid at the times and in the manner set forth in the said Conditions, the Contractor shall upon and subject to the said Conditions execute and complete the work shown upon the said Drawings and described in the said Specifications and the priced Schedule of Quantities.
2. The Employer shall pay to the Contractor the said Contract Amount, or such other sum as shall become payable, at the times and in the manner specified in the said Conditions.
3. The said Conditions and Appendix thereto shall be read and construed as forming part of this Agreement, and the parties hereto shall respectively abide by submit themselves to the said Conditions and perform the Agreements on their part respectively in the said Conditions contained.
4. The Plans, Agreements and Documents mentioned herein shall form the basis of this Contract.
5. This Contract is neither a fixed lump-sum contract nor a piece work contract but a contract to carry out the work as per enclosed schedule of Items and to be paid for according to actual measured quantities at the rates contained in the Schedule of Quantities or as provided in the said Conditions and approved by the SBI.
6. The Contractor shall afford every reasonable facility for the carrying out of all works relating to the **Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar** in the manner laid down in the said Conditions, and shall make good any damages done to walls, floors, etc. after the completion of his work.



7. The Employer reserves to itself the right of altering the drawings and nature of the work by adding to or omitting any items of work or having portions of the same carried out without prejudice to this Contract.

8. Time shall be considered as the essence of this Contract and the Contractor hereby agrees to commence the work soon after the Site is handed over to him or from 7th day after the date of issue of formal work order as provided for in the said Conditions whichever is later and to complete the entire work within 3 months subject to nevertheless the provisions for extension of time.

9. All payments by the Employer under this Contract will be made by State Bank of India.

10. All disputes arising out of or in any way connected with this Agreement shall be deemed to have arisen at Bhubaneswar and only the Courts in Bhubaneswar shall have jurisdiction to determine the same.

11. That the several parts of this Contract have been read by the Contractor and fully understood by the Contractor.

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

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

SIGNATURE CLAUSE

SIGNED AND DELIVERED by the

\_\_\_\_\_ By the

(Employer)

hand of Shri \_\_\_\_\_

\_\_\_\_\_

(Signature of Employer)

(Name and Designation)

In the presence of :

Shri / Smt. \_\_\_\_\_

(Signature of Witness)

Address \_\_\_\_\_

\_\_\_\_\_

(Witness)



SIGNED AND DELIVERED by the

\_\_\_\_\_ by the

(Contractor)

(Signature of Contractors)

in the presence of :

Shri / Smt. \_\_\_\_\_

(Signature of Witness)

Address \_\_\_\_\_



## **INSTRUCTIONS TO THE TENDERERS:**

### **1.0 Scope of Work**

Online Tenders are invited for “Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar”

### **1.1 Site and Its Location**

The proposed work is to be carried out at proposed premises of **RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar**”

### **1.3 Eligibility Criteria:**

The Eligibility Criteria for participation in tender is as under:-

- a. The bidder should be Original Equipment Manufacturers (OEMs) of VRF Air-conditioner or their authorized Dealer of Daikin, Carrier, Blue Star, Mitsubishi Heavy & Mitsubishi Electric, Toshiba, O-General, LG, Trane, Hitachi, Panasonic and Voltas make.

However, if the bidder is an Authorized dealer, then dealer must submit the following two documents:

- (i) Valid dealership certificate.
- (ii) Authorization letter from manufacturer for participation in this tender.

### **2.0 Tender Documents**

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

- 2.1 (a) Instructions to tenderers
- 2.1 (b) General Conditions of Contract
- 2.1 (c) Special Conditions of Contract
- 2.1 (d) Additional Conditions for AC Installation
- 2.1 (e) Technical Specifications
- 2.1 (f) Priced 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. Technical Specifications
- c. Additional Conditions for AC Installation



- d. Special Conditions of Contract
- e. General Conditions of Contract
- f. Instructions to Tenderers

2.3 Complete set of tender documents including relative drawings, if any, can be downloaded from [www.sbi.co.in](http://www.sbi.co.in) (link) <Procurement News>

### 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 to satisfy himself regarding the availability of water, power, transport and communication facilities, the character, quality and quantity of the materials, labour, the law and order situation, climatic conditions local authorities requirement, traffic regulations etc;

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

### 4.0 EARNEST MONEY

4.1 The tenderers are requested to submit the Earnest Money of **Rs.6500/-** (Rupees Six Thousand Five Hundred Only) in the form of Demand Draft or Banker's Cheque in favour of "SBI" payable at "Bhubaneswar" drawn on any Scheduled Bank in India. Contractors deposited one time EMD in SBI P & E Department, LHO Bhubaneswar are exempted and may attach scan copy of EMD.

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

4.3 No interest will be paid on the EMD.

4.4 After identifying the L1 vendor EMD of unsuccessful tenderers will be refunded personally to the vendor against their acknowledgement or shall be sent to their given address within a week by post/courier on request from tenderers.

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

### 5.0 INITIAL SECURITY DEPOSIT.

L1 vendor shall submit, 2% of awarded value of work excluding EMD in the form of DD/BC/FDR favouring "State Bank of India" payable at **Bhubaneswar** within a period of 7 days from the date of receipt of work order. EMD obtained in the name of **SBI** shall be returned to them on receipt of ISD.

### 6.0 SECURITY DEPOSIT

6.1 **ADDITIONAL SECURITY DEPOSIT** : -NA-.

6.2 **RETENTION MONEY**: Total security deposit shall be 5% of the final value of the work. Out of this 2% of tender value (i.e. tender amount) is in the form of initial security deposit (ISD). Besides the ISD as deposited by the contractor in the above said manner, the Retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. ISD plus EMD plus Retention



Money shall both together not exceed 5% of the contract value. Bank also may deduct total 5% of the final value of the work from Final bill and the ISD shall be returned to the L1 vendor.

The total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects, if any, in accordance with the conditions of contract including site clearance.

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

## 7.0 SIGNING OF CONTRACT DOCUMENTS

The successful tenderer shall be bound to implement the contract with SBI by signing an agreement and conditions of contract attached herewith within **7 days** from the receipt of intimation of acceptance of his tender by the SBI. However, the written acceptance of the tender by the SBI will constitute a binding agreement between the SBI and successful tenderer whether such formal agreement is subsequently entered into or not.

**8.0 COMPLETION PERIOD:** Time is the essence of the contract; the work should be completed in all respect and in accordance with the terms of contract within a **period of 30 days** from the date of commencement of work or handing over of site, whichever is earlier.

**9.0 VALIDITY OF TENDER : 3 Months**

Tenders shall remain valid and open for acceptance for a period of 3 (Three) months from the date of opening price bid. 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 SBI without prejudice to any other right or remedy the SBI shall be at liberty to forfeit the EMD./ One time EMD

## 10.0 LIQUIDATED DAMAGES

The liquidated damages shall be 0.5% of the tender value per week subject to a maximum of 5% of the actual value of work.

## 11.0 RATES AND PRICES

11.1.9 In case, any of such contractor(s) (quoted same tender amount during initial bidding or subsequent re-bidding) refuses to submit revised offer, it shall be treated as "withdrawal of tender" by the Contractor before acceptance. The earnest money of such contractors shall be forfeited.

11.1.10 In case all the lowest contractors those have quoted same tendered amount, refuse to participate in online revised bidding process for the project, the EMD/ One time EMD of such Contractors shall be forfeited and the tenders shall be re-invited for the project.

11.1.11 The Contractor(s), whose earnest money is forfeited because of non-submission of revised offer, shall not be allowed to participate in the re-tendering process for the said project.

11.1.12 The rate quoted shall be firm and shall include all costs, allowances etc. except G.S.T, which shall be payable / reimbursed at actuals.

11.1.13 The SBI reserve their rights to accept any tenders, either in whole or in part or may entrust the work in phases or may drop the part scope of work at any stage of the project or get the works done through another contractor at the cost of the accepted tenderer within its sole discretion





without assigning any reason(s) for doing so and no claim / correspondence shall be entertained in this regard.

11.1.14 In case it is decided by the SBI to reduce the scope of work at any stage of the project, the contractor shall not be entitled to raise any claim / compensation on account of reduction in scope of work. Also, the SBI may consider for increase in scope of similar work in other buildings in phases but within a reasonable time interval and the contractor shall be bound to execute the same within the stipulated time period and as per rates quoted by them in this tender without any claim for price escalation.



## GENERAL CONDITIONS OF CONTRACT (GCC)

### 1.0 Definitions

“**Contract**” means the documents forming the tender and the acceptance thereof and the formal agreement executed between SBI 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 Architects/SBI and all these, documents taken together shall be deemed to form one contract and shall be, complementary to one another.

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

1.1.1 ‘**SBI / Bank**’ shall mean State Bank of India (client) a body Corporate created under SBI Act 1955, having one of its Circle Office at State Bank of India, III/1 Pandit Jawaharlal Nehru Marg, Bhubaneswar- 01 and includes the client’s representatives, successors and assigns.

1.1.2

1.1.3 ‘**Architects/Consultants**’ shall mean **M/s.** \_\_\_\_\_

1.1.4 ‘**Site Engineer**’ shall mean an Engineer appointed by the Bank as their representative to give instructions to the contractors.

1.1.5 ‘**The Contractor**’ shall mean the individual or firm or company whether incorporated or not, 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.

1.1.6 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.

1.1.7 ‘**Engineer**’ or **Engineer-in-Charge (EIC)** shall mean the representative of the Architect/consultant.

1.1.8 ‘**Drawings**’ shall mean the drawings prepared by the Architects and issued by the Engineer and referred to in the specifications and any modifications of such drawings as may be issued by the Engineer from time to time ‘Contract value shall mean 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.

1.1.9 ‘**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 architect/ consultant “Month” means calendar month.

1.1.10 “**Week**” means seven consecutive days.

1.1.11 “**Day**” means a calendar day beginning and ending at 00 Hrs and 24 hrs respectively.

### CLAUSES:

#### 1.0 Total Security Deposit



Total Security deposit comprise of:

- Earnest Money Deposit
- Initial Security Deposit
- Retention Money

**a) Earnest Money Deposit:**

The tenderer shall furnish EMD of **Rs.6500/-** (Rupees Six Thousand Five Hundred Only) in the form of Demand draft or banker's cheque drawn in favour of SBI., payable at "**Bhubaneswar**" from any Scheduled Bank. No tender shall be considered unless the EMD is so deposited in the required form. No interest shall be paid on this EMD. Contractors deposited one time EMD in SBI P & E Department, LHO Bhubaneswar are exempted and may attach scan copy of EMD.

After identifying the L1 vendor EMD of unsuccessful tenderers will be refunded without interest, personally to the vendor against their acknowledgement or shall be sent to their given address within a week by post/courier on request from tenderers. 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 for acceptance by the SBI or after it is accepted by the SBI the contractor fails to enter into a formal agreement or fails to pay the initial security deposit as stipulated or fails to commence the work within the stipulated time.

Contractors having registered in MSME/NSIC or any govt agency are **exempted** to submit the EMD amount.

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

L1 vendor shall submit, 2% of awarded value of work in the form of DD/BC favoring "State Bank of India" payable at **Bhubaneswar** within a period of 15 days from the date of receipt of work order. EMD obtained in the name of **SBI** shall be returned to them.

**SECURITY DEPOSIT**

**SECURITY DEPOSIT**

**ADDITIONAL SECURITY DEPOSIT : -NA-**

**RETENTION MONEY:**Total security deposit shall be 5% of the final value of the work. Out of this 2% of tender value (i.e. tender amount) is in the form of initial security deposit (ISD). Besides the ISD as deposited by the contractor in the above said manner, the Retention money shall be deducted from the running account bill at the rate of 10% of the gross value of work done by the contractor and claimed in each bill provided the total security deposit i.e. ISD plus EMD plus Retention Money shall both together not exceed 5% of the contract value. Bank also may deduct total 5% of the final value of the work from Final bill and the ISD shall be returned to the L1 vendor.

The total security deposit shall be refunded to the contractors without interest within fifteen days after the end of defects liability period provided the contractor has satisfactorily attended to all defects, if any, in accordance with the conditions of contract including site clearance.

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



## **2.0 Language 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.

## **3.0 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 SBI /architect/consultant. The architect/consultant at the directions of the Bank from time to time issue further drawings and/or written instructions, details directions and explanations which are hereafter collectively referred to as Architect's/Consultant's instructions in regard to : the variation or modification of the design, quality or quantity of work or the addition or omission or substitution of any work, any discrepancy in the drawings or between the BOQ and/or drawings and/or specifications, the removal from the site of any material brought thereon by the contractor and the substitution of any other materials thereof, the demolition, removal and/or re-execution of any work executed by him, the dismissal from the work of any person employed/engaged thereupon.

### **4.0 (i) Letter of Acceptance**

Within the validity period of the tender the SBI shall issue a letter of acceptance either directly or through the architect by registered post/e-mail/speed 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 SBI and the contractor.

### **ii) Contract Agreement**

On receipt of intimation of the acceptance of tender from the Architect the successful tenderer shall be bound to implement the contract and within fifteen days thereof ,he shall sign an agreement in a non-judicial stamp paper of appropriate value(as per the Article of Agreement format earlier given in this document) with SBI.

## **5.0 Ownership of drawings**

All drawings, specifications and copies thereof furnished by the SBI, through its architect/ consultants are the properties of the SBI. They are not to be used on other work.

## **6.0 Detailed drawings and instructions**



The SBI through its architects/consultants shall furnish with reasonable 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 shall prepare a detailed programme schedule (i.e. BAR/PERT Chart) indicating therein the date of start and completion of various activities on receipt of the work order and submit the same to the SBI through the Architect/Consultant.

### **7.0 Copies of Agreement**

Out of Six copies, two copies of agreement/tender document duly signed by both the parties with the drawings shall be handed over to the contractors, two copies to SBI and one copy each shall be for the use of SBI and Architect.

### **8.0 Liquidated Damages**

If the contractor fails to maintain the required progress in terms of clause 29 of GCC or to complete the work and clear the site including vacating their office on or before the contracted or extended date or completion without justification in support of the cause of delay, he may be called upon without prejudice to any other right of remedy available under the law to the SBI on account of such breach to pay a liquidated damages at the rate of 0.5% of the final value of work per week subject to a maximum of 5% of the final value of work.

### **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/workers and shall not employ on the work any unfit person/worker or anyone not skilled in the work assigned to him. Workman whose work or behaviour is found to be unsatisfactory by the SBI /Architect, he shall be removed from the site immediately.

### **10.0 Permits, Laws and Regulations**

Permits and licences 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/ labour laws, and ordinances rules, applicable to the contractor. If the contractor observes any discrepancy between the drawings and specifications, he shall promptly notify the SBI in writing under intimation of the Architect/Consultant. If the contractor performs any act which is against the law, rules and regulations he shall meet all the costs arising there from and shall indemnify the SBI any legal actions arising there from.

### **11.0 Setting out Work**

The contractor shall set out the work and shall be responsible for the true and perfect setting out of the same and for the correctness of the positions, levels, dimensions, and alignment of all parts thereof and get it approved by the architect/consultant before proceeding with the work. If at any time any error in this respect shall appear during the progress of the works, irrespective of the fact



that the layout had been approved by the architect/consultant the contractor shall be responsible for the same 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 due to his fault or negligence except which are due to causes beyond his control.

He shall take adequate care and steps for protection of the adjacent properties. The contractor shall take all precautions for safety and protection of his employees on the works and shall comply with all applicable provisions of Government and local bodies' safety laws and relevant building codes to prevent accidents, or injuries to persons or property of 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 contractors and the SBI and the original policy may be lodged with the SBI.

### **13.0 Inspection of Work**

SBI/Architect/Consultant or their representatives shall at all reasonable time have free access to the work site and/or to the workshop, factories or other places where materials are lying or from where they are obtained and the contractor shall give every facility to the SBI /SBI/Architect/Consultant and their representatives necessary for inspection and examination and test of the materials and workmanship. No person unless authorized by the SBI /SBI/Architect/Consultant except the representative of Public authorities shall be allowed on the work at any time. The proposed work either during its construction stage or its completion can also be inspected by the Chief Technical Examiner's organization or it's representative, 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 SBI through the architect and no undertaking shall relieve the contractor from the responsibility of the contractor from active superintendence of the work during its progress.

### **15.0 Quality of Materials, Workmanship & Test**

All materials and workmanship shall be best of the respective kinds described in the contract and in accordance with Architect's instructions and shall be subject from time to time to such tests as the SBI /Architect 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.

Contractor to made arrangement of laboratory on site, where weight of various materials like aluminium extrusions etc. can be done, Contractor should also make available a 3.00 meters, 15.00 meters & a 50.00 meters tape, a Vernier Caliper & Micrometer so any measurements/ tests can be taken on sites itself.

### **(ii)Samples**



All samples of adequate numbers, size, shades & pattern as per specifications shall be supplied by the contractor without any extra charges. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site detailed literature/test certificate of the same shall be provided to the satisfaction of the Architect. Before submitting the sample/literature the contractor shall satisfy himself that the material/equipment for which he is submitting the samples/literature meet with the requirement of tender specification. Only when the samples are approved in writing by the SBI/Architect the contractor shall proceed with the procurement and installation of the particular material/equipment.

The approved samples shall be signed by the SBI. /Architect 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 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.

### **(iii) Cost of tests**

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

### **(iv) Cost of test not provided for**

If any test is ordered by the Architect which is either:

- (a) If so intended by or provided for or (in the cases above mentioned) is not so particularized or through so intended or provided for but ordered by the Architect 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 fulfilment 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 Architect may consider necessary until the expiry of the defects liability period, stated hereto.

## **18.0 Quantities**

- i) The Schedule/Bill of quantities (BOQ) unless or otherwise stated shall be deemed to have been prepared in accordance with the Indian Standard Method of Measurements. The quantity mentioned in BOQ are approximate and if Bank at its exigencies demand for executing the works , more or less the quantity assigned ,the vendor is bound to do so at the rates quoted against individual items in the tender without any negotiation/alteration in rates or specifications. The rate quoted shall remain valid for variation of quantity against individual item to any extent.



## **19.0 Works to be measured**

The SBI /SBI/Architect 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 SBI./SBI/Architect in taking such measurements and calculation and to furnish all particulars or to give all assistance required by any of them. Such measurements shall be taken in accordance with the Mode of measurements detailed in the specifications/ as per IS Code. The representative of the SBI/ Architect 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 the corrections shall be duly attested by both representatives. No over writings shall be made in the measurement book. Should the contractor not attend or neglect or omit to depute his representative to take measurements then the measurements recorded by the representative of the SBI/ Architect shall be final. 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 SBI/SBI/Architect shall vitiate the contract. In case the SBI /SBI/Architect 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 Architect/Consultant 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 Architect/Consultant and the value of such extras, alterations, additions or omissions shall in all cases be determined by the Architect/Consultant and the same shall be added to or deducted from the contract value, as the case may be.

## **21.0 Valuation of Variations**

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

- i) The net rates or prices in the contract shall determine the valuation of the extra work where such extra work is of similar character and executed under similar conditions as the work priced herein.
- ii) Rates for all items, wherever possible should be derived out of the rates given in the priced BOQ.
- b) The net prices of the original tender shall determine the value of the items omitted, provided if omissions do not vary the conditions under which any remaining items of works are carried out, otherwise the prices for the same shall be valued under sub clause (c) hereunder.





- c) Where the extra works are not of similar character and/or executed under similar conditions as aforesaid or where the omissions vary the conditions under which any remaining items or works are carried out, then the contractor shall within 7 days of the receipt of the letter of acceptance inform the Architect of the rate which he intends to charge for such items of work, duly supported by analysis of the rate or rates claimed and the Architect 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 SBI/Architect) the workman's name and materials employed be delivered for verifications to the Architect/Consultant at or before the end of the week following that in which the work has been executed.
- e) It is further clarified that for all such authorized extra items where rates cannot be derived from the tender, the contractor shall submit rates duly supported by rate analysis worked on the "market rate basis" for material, labour, hire/running charges of equipment and wastages etc. plus 15% towards establishment charges, contractor's overheads and profit. Such items shall not be eligible for escalation.

## 22.0 Final Measurement

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

## 23.0 Virtual Completion Certificate (VCC)

On successful completion of entire works covered by the contract to the full satisfaction of the SBI, the contractor shall ensure that the following works have been completed to the satisfaction of the SBI-

- a) Clear the site of all scaffolding, wiring, pipes, surplus materials, contractor's labour, equipment and machinery.
- b) Demolish, dismantle and remove the contractor's site office, temporary works, 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 SBI and shall clear, level and dress, compact the site as required by the SBI.
- d) Shall put the SBI in undisputed custody and possession of the site and all land allotted by the SBI.
- e) Shall hand over the work in a peaceful manner to the SBI.
- f) All defects/imperfections have been attended and rectified as pointed out by the SBI to the full satisfaction of SBI. Upon the satisfactory fulfilment by the contractor as stated above, the contractor shall be entitled to apply to the Architect/Consultant for the certificate. If the Architect/Consultant is satisfied of the completion of the work, relative to



which the completion certificate has been sought, the Architect/Consultant shall within fourteen (14) days of the receipt of the application for virtual completion certificate, issue a VCC in respect of the work for which the VCC has been applied. 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/Architect 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 only allow but also extend reasonable facilities for the execution of such work. The contractor however shall not be required to provide any plant or material for the execution of such work except by special arrangement with the SBI. Such work shall be carried out in such manners not to impede the progress of the works included in the contract.

#### **25.0 Insurance of Works**

25.1 Without limiting his obligations and responsibilities under the contract the contractor shall ensure in the joint names of the SBI 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 SBI and contractor are covered for the period stipulated in clause 27 & 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 SBI which approval shall not be unreasonably withheld and the contractor shall whenever required produce to the Architect 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 SBI against all losses and claims in respect of injuries or damages to any person or material or physical damage to any property whatsoever which may arise out of or in consequence of the execution and maintenance of the works and against all claims proceedings, damages, costs, charges and expenses whatsoever in respect of or in relation thereto except any compensation of damages for or with respect to :



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

### **25.3 Contractor to indemnify SBI**

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

### **25.4 Contractor's superintendence**

The contractor shall fully indemnify and keep indemnified the SBI against any action, claim, or proceeding relating to infringement or use of any patent or design or any alleged patent or design rights and shall pay any royalties which may be payable in respect of any article or part thereof included in the contract. In the event of any claim made under or action brought against SBI in respect of such matters as aforesaid the contractor shall be immediately notified thereof and the contractor shall be at liberty, at his own expenses to settle any dispute or to conduct any litigation that may arise there from, provided that the contractor shall not be liable to indemnify the SBI if the infringement of the patent or design or any alleged patent or design right is the direct result of an order passed by the SBI/Architect 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 25 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 25 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/Architect the policy or policies of insurance cover and receipts for payment of the current premiums.

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

## **25.7 Accident or Injury to Workmen**

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

### **25.7.2 Insurance against accidents etc to workmen**

The contractor shall insure against such liability with an insurer approved by the SBI during the whole of the time any person employed by him on the works and shall, when required, produce to the architect/consultant such policy of insurance and receipt for payment of the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligation to 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 SBI is indemnified under the policy but the contractor shall require such sub-contractor to produce to the SBI/Architect when required such policy of insurance and the receipt for the payment of the current premium.

### **25.7.3 Remedy on Contractor's failure to insure**

If the contractor fails to effect and keep in force the insurance referred to above or any other insurance which he may be required to effect under the terms of contract, then and in any such case the SBI may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for that purpose and from time to time deduct the amount so paid by the SBI as aforesaid and also deduct 15% of contract value from any amount due or which may become due to the contractor, or recover the same as debt from the contractor.

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



## 26.0 Commencement of Works

The date of commencement of the work will be reckoned as the recorded date of handing over site by the SBI or **7 days** from the date of receipt of Letter of Acceptance/work order from SBI, 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 **1 month (30 days)** from 7<sup>th</sup> day of the date of issue of work order or handing over site whichever is later. If required in the contract or as directed by the Architect, 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 Architect/Consultant, the work be delayed for reasons beyond the control of the contractor, the Architect/Consultant may submit a recommendation to the SBI to grant a fair and reasonable extension of time for completion of work as per the terms of contract. If the contractor needs an extension of time for the completion of work or if the completion of work is likely to be delayed for any reasons beyond the due date of completion as stipulated in the contract, the contractor shall apply to the SBI through the Architect/Consultant in writing at least 15 days before the expiry of the scheduled time and while applying for extension of time he shall furnish the reasons in detail and his justification if any, for the delays. The architect/consultant shall submit their recommendations to the SBI in the prescribed format for granting extension of time. While granting extension of time the contractor shall be informed the period extended time which will qualify for levy of liquidated damages. For the balance period in excess of original stipulated period and duly sanctioned extension of time by the SBI the provision of liquidated damages as stated under clause 8 of GCC shall become applicable. Further contract shall remain in force even for the period beyond the due date of completion irrespective whether the extension is granted or not.

## 29.0 Rate of progress

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

## 30.0 Work during nights and holidays



Subject to any provision to the contrary contained in the contract no permanent work shall save as herein provided be carried on during the night or on holidays without the permission in writing of the SBI/Architect, save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the work in which case the contractor shall immediately advise the SBI/Architect. However the provision 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 and continued with the prior approval of the SBI/Architect 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 so as to avoid disputes with the neighbours.

### **31.0 No compensation for restrictions of work**

If at any time after acceptance of the tender SBI shall decide to abandon or reduce the scope of work for any reason whatsoever and hence not require the whole or any part of the work to be carried out, the SBI Architect 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 bona fide brought to the site of the work by the contractor and rendered surplus as a result of the abandonment, curtailment of the work or any portion thereof and then taken back by the contractor, provided however that the SBI/Architect shall have in such cases the option of taking over all or any such materials at their purchase price or a local current rate whichever is less. In case of such stores having been issued from SBI stores and returned by the contractor to stores, credit shall be given to him at the rates not exceeding those at which were originally issued to the contractor after taking into consideration and deduction for claims on account of any deterioration or damage while in the custody of the contractor and in this respect the decision of SBI/Architect shall be final.

### **32.0 Suspension of work**

- i) The contractor shall, on receipt of the order in writing of the SBI/Architect (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/Architect 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 of 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 SBI/Architect.

- 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 Architect/Consultant shall have the power to adopt any of the following course as they may deem best suited to the interest of the SBI.

- a) To rescind the contract (of which rescission notice in writing to the contractor by the Architect/Consultant shall be conclusive evidence) and in which case the security deposit of the contractor shall be forfeited and be absolutely at the disposal of SBI.
- b) To employ labour paid by the SBI and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and materials (the cost of such labour and materials as worked out by the Architect 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 Architect/Consultant 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 Architects/ Consultant shall be final and conclusive) shall be borne by original contractor and may be deducted from any money due to him by SBI under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or sufficient part thereof.

In the event of any of above courses being adopted by the SBI the contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any material or entered into any engagements or make any advances on account of, or with a view to the execution of the work or the performance of the contract and in case the contract shall be 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 Architect/Consultant/SBI will have certified in writing the performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

### **34.0 Owner's Right to Terminate the Contract**

If the contractor being an individual or a firm commit any 'Act of Insolvency' or shall be adjusted an insolvent or being an incorporated company shall have an order for compulsory winding up voluntarily or subject to the supervision of Government 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 SBI/Architect that he is able to carry out and fulfil the contract, and to give security therefore if so required by the SBI.



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

Or shall assign or sublet this contract without the consent in writing of the SBI through the Architect/Consultant or shall charge or encumber this contract or any payment due to which may become due to the contractor there under.

- a) Has abandoned the contract; or
- b) Has failed to commence the works, or has without any lawful excuse under these conditions suspended the progress of the works for 14 days after receiving from the SBI through the Architect/Consultant written notice to proceed, or
- c) Has failed to proceed with the works with such diligence and failed to make such due progress as would enable the works to be completed within the time agreed upon, or has failed to remove the materials from the site or to pull down and replace work within seven days after written notice from the SBI through the Architect/ Consultant that the said materials were condemned and rejected by the Architect/ Consultant under these conditions; or has neglected or failed persistently to observe and perform all or any of the acts, matters or things by this contract to be observed and performed by the 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 SBI's or Architect's/Consultant's instructions to the contrary subject any part of the contract. Then and in any of said cases the SBI and or the Architect/Consultant, may not withstanding any previous waiver, after giving seven days' notice in writing to the contractor, determine the contract, but without thereby affecting the powers of the SBI or the Architect/Consultant or the obligation and liabilities of the contractor the whole of which shall continue in force as fully as if the contract had not been so determined and as if the works subsequently had been executed by or on behalf of the contractor. And, further the SBI through the Architect/Consultant, their agents or employees may enter upon and take possession of the work and all plants, 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 to the SBI or the Architect/Consultant shall give a notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within 14 days after receipt thereof by him the SBI 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 SBI incidental to the sale of the materials etc.

### **35.0 Certificate of Payment**

Payment will be made as per terms mentioned in the NIT.





- The prices in the Price Schedule shall be exclusive of GST or any other applicable taxes as may be levied by the Government from time-to-time and the same shall be charged in addition to the applicable rate.
- The SBI shall make all endeavor to make payments within 20-30 days from the date of the receipt of the invoice, to the Contractor.
- All payments shall be made in Indian Currency by means of an Account Payee Cheques/ RTGS/ NEFT only.
- SBI shall be entitled to deduct in accordance with Applicable Law, Income Tax or withholding tax or other deductions (as the case may be), from any payments made to the Contractor, and the amount so deducted shall be deemed to be a payment made to the Contractor. SBI shall provide a certificate certifying the deduction so made.
- No payment shall be made in advance nor will any loan from any bank or financial institution be recommended based on the order of award of work.
- Payment will be made as per the actual work done at site based on final measurement. The measurement will be taken in presence of representatives from both SBI and contractor.

### **36.0 Settlement of Disputes and Arbitration**

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

i) 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 authorized person of SBI 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 AGM (P&E), SBI, Bhubaneswar 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 Vendor shall not be entitled to raise any claim nor shall the SBI be in any way liable in respect of any claim by the Contractor unless notice of such claim shall have been given by the Contractor to the AGM (P&E), SBI, Bhubaneswar of respective Circle, in the manner and within the time as aforesaid. The Vendor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the respective AGM (P&E), SBI, Bhubaneswar, in writing in the manner and within the time aforesaid.

ii) The AGM (P&E), SBI, Bhubaneswar 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 AGM (P&E), SBI, Bhubaneswar submit his claims to the conciliating authority namely the AGM (P&E), SBI, Bhubaneswar , Local Head office, 2<sup>nd</sup> Floor, Unit 3, Pt. Jawaharlal marg, Bhuba-



neswar, for conciliation along with all details and copies of correspondence exchanged between him and the SBI.

iii) 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 Dy. General Manager & Chief Development Officer of the SBI Bhubaneswar Circle for appointment of an arbitrator to adjudicate the notified claims falling which the claims of the Contractor shall be deemed to have been considered absolutely barred and waived.

iv) 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 SBI shall be referred for adjudication through arbitration to the Sole Arbitrator appointed by the Dy. General Manager & Chief Development Officer of the SBI Bhubaneswar Circle. and who will be an officer not less than the rank of Deputy General Manager of SBI. 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 Dy. General Manager & Chief Development Officer of the SBI Bhubaneswar Circle Such person shall be entitled to proceed with the reference from the stage at which it was let by his predecessor.

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

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

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

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 Cost of the reference and of the award 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.

### **37.0 Water Supply**

The contractor shall make his own arrangements for water system for execution of work at his own cost. The cost is to be included in his tender prices. He shall pay all fees and charges required for the water supply and include the same in his tendered rates and hold the owner free from all such costs. He has to obtain necessary approvals from the appropriate authorities, if required.

### **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 to be 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 approvals 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 SBI 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 format at site of work and should produce the same for inspection of SBI/Architect/Consultant whenever desired by them. The contractor shall also maintain the records/registers as required by the local authorities/Government from time to time.

### **42.0 Force Majeure**

42.1 Neither contractor nor SBI 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.

42.2 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.

42.3 From the date of occurrence of a case of force majeure obligations of the party affected shall be suspended during the continuance of any inability so caused. With the 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.

42.4 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.

### **43.0 Local Laws, Acts, Regulations**



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

- i) Minimum Wages Act, 1948 (Amended)
- ii) Payment of Wages Act 1936 (Amended)
- iii) 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
- ix) Any other Act or enactment relating thereto, and rules framed there under from time to time.

#### **44.0 SAFETY CODE:**

Safety as per annexure given should be followed.

#### **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 Architect/Consultant. 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 (SCC)

#### **1.0 Dimensions and Levels**

All dimensions and levels shown on the drawing shall be verified by the contractor on the site and he will be held responsible for the accuracy and maintenance of all the dimensions and the levels. Figured dimensions are in all cases to be accepted and no dimension shall be scaled. Large-scale details shall take precedence over small-scale drawings. In case of discrepancy the contractor shall ask for clarification from the Architect / Consultant before proceeding with the work.

#### **2.0 Notice of Operation**

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

#### **3.0 Construction Records**



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

#### **4.0 Safety of Adjacent Structures and Trees**

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

#### **5.0 Temporary Works**

Before any temporary works are commenced the contractor shall submit at least 7 days in advance to the Architect / Consultant for approval complete drawings of all temporary works he may require for the execution of the works. The contractor shall carry out the modifications relating to strength, if required by the Architect / Consultant may require in accordance with the conditions of contract at his own cost. The Contractor shall be solely responsible for the stability and safety of all temporary works and unfinished works and for the quality of the permanent works resulting from the arrangement eventually adopted for their execution.

#### **6.0 Work Programme**

As soon as the contract is awarded, a suitable programme of work preferably in the form of Bar Chart shall be drawn up for completion of the different stages of the work, so as to ensure its completion within the allotted period of time. This programme shall be submitted by the contractor in consultation with Architect / PMC or Site Engineer.

#### **7.0 Water, Power and Other Facilities**

- (a) The rate quoted by the contractor shall include all expenses that are required for providing all the water required for the work and the contractor shall make his own arrangements for the supply of good quality water suitable for the construction and good quality drinking water for their workers. If necessary, the contractor has to sink and a tube well / open well and bring water by means of tankers at his own cost for the purpose. The SBI will not be liable to pay any charges in connection with the above.
- (b) The rate quoted in the tender shall include the expenses for obtaining and maintaining power connections and shall pay for the consumption charges.
- (c) The contractors for other trades directly appointed by the SBI shall be entitled to take power and water connections from the temporary water and power supply obtained by the contractor. However, the concerned contractor shall make their own arrangements to draw the supply and pay directly the actual consumption charges at mutually agreed rates between them. All municipal charges for drainage and water connection for construction purposes shall be borne by the contractor and charges payable for permanent connections, if any, shall be initially paid by the contractor and the SBI will reimburse the amount on production of receipts.
- (d) The SBI as well as the Architect / Consultant shall give all possible assistance to the contractors to obtain the requisite.



- (e) Permission from the various authorities, but the responsibility for obtaining the same in time shall be of the contractor.

## **8.0 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 SBI / 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 at any other earlier date as directed by the Architect / Consultant.

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.

## **9.0 Facilities for Contractor's Employees**

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

## **10.0 Lighting of Works**

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

## **11.0 Fire Fighting Arrangement**

- (i) The contractor shall provide suitable arrangement for firefighting at his own cost. For this purpose, he shall provide requisite number of fire extinguishers and adequate number of buckets, some of which are to be always kept filled with stand and some with water. These equipment's shall be provided at suitable prominent and easily accessible places and shall be properly maintained.
- (ii) Any deficiency in the fire safety or unsafe conditions shall be corrected by the contractor at his own cost and to the approval of the relevant authorities. The contractor shall make the following arrangements at his own cost but not limited to the following:
  - 
  - (a) Proper handling, storage and disposal of combustible materials and waste.
  - (b) Work operations which can create fire hazards.
  - (c) Work operations which can create fire hazards.
  - (d) Type, number and location of containers for the removal materials and rubbish.



- (e) Type, size, number and location of the fire extinguishers or other firefighting equipment.
- (f) General housekeeping.

## **12.0 Site Order Book**

A site order book shall be maintained at site for the purpose of quick communication between the Architect / Consultant. Any communication relating to the works may be conveyed through. Records in the site order book. Such a communication from one party to the other shall be deemed to have been adequately served in terms of contract. Each site order book shall have machine numbered pages in triplicate and shall be carefully maintained and preserved by the contractor and shall be made available to the Architect / Consultant as and when demanded.

Any instruction which the Architect / Consultant may like to issue to the contractor may like to bring to the Architect / Consultant two copies of such instructions shall be taken from the site order book and one copy will be handed over to the party against proper acknowledgment and the second copy will be retained for their record.

## **13.0 Temporary Fencing / Barricading**

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

## **14.0 Site Meetings**

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

## **15.0 Disposal of Refuse**

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

## **16.0 Contractor to verify site measurement**

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

## **17.0 Displaying the name of the work**



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

#### **18.0 Approved make**

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

#### **19.0 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.

#### **20.0 Excise Duty, Taxes, Levies etc.**

The contractor shall pay and be responsible for payment of all taxes, duties, levies, royalties, fees cess or charges in respect of the works including but not limit to sales tax, tax on works contract excise duty, and octroi, payable in respect of materials, equipment plant and other things required for the contractor. All of the aforesaid taxes' duties, levies, fees and charges shall be to the contractor's account and the SBI shall not be required to pay any additional or extra amount on this account. Variation of taxes, duties, fees, levies etc. if any, till completion of work shall be deemed to be included in the quoted rates and no extra claim amount on this account will in any case be entertained. If a new tax or duty or levy or cess or royalty or octroi is imposed under as statue or law during the currency of contract the same shall be borne by the contractor. GST shall be paid extra as applicable by Bank.

#### **21.0 Acceptance of Tender**

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

#### **22.0 Government and Local Rules**

The contractor shall conform to the provisions of local Byelaws and Acts relating to the work and to the Regulation 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 shall notices required by said Act, Rules, Regulations and Byelaws etc. and pay all 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 into account all liabilities for licenses, fees for footpath encroachment and restorations etc. and shall indemnify the Owner against such liabilities and shall defend all actions arising from such claims or liabilities.

#### **23.0 Possession Prior to Completion**





The Owner shall have right to take possession of or use any completed 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.

#### **24.0 Tools, Storage of Materials , Protective Works and Site Office Requirements**

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

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.

The contractor shall provide at his own cost all artificial light required for the work and to enable other contractors and sub-contractors to complete the work within the specified time.

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.

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 make good all the works disturbed by these convenience.

Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the works during the construction, and all receptacles, cistern, water tanks etc. used for the 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.

The contractor shall not fix or place any placards or advertisement of any description or permit the same to be fixed or placed or upon any boarding gantry, building structure other than those approved by the Owner.

Protective Measure: The contractor from time to time of being placed possession of 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.

Contractor shall indemnify the Owner against any possible damage to the building, Roads, or members of the public in course of execution of the work.

The contractor shall provide necessary temporary enclosures, gates, entrances 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 works and making good all works disturbed.

Storage of Materials: The contractor shall provide and maintain proper sheds for the proper storage and adequate protection of 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.

Cement go down shall be constructed for storing six weeks' requirement of cement and stored as per norms with a stack of 10 bags each and 2 feet opening all-round with 2 feet passage of each stack. Structure shall be waterproof from all the sides & top. Cement should be stored one foot above the ground level and have pucca raised floor.



So also, reinforcement bars are to be stored above the ground level to prevent the same from getting rusted.

Tools: Theodolite, levels prismatic compass, chain, steel and metallic tapes and all other surveying instruments found necessary on the works shall be provided by the contractor for the due performance of this contract as instructed by the Site Engineer.

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

The masons and the supervisors on the works shall carry with them always a one metre or two metre steel tape, a measuring tape of 30 metres, a spirit level., a plumb bob and a square and shall 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 works 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.

## **25.0 Datum**

The average ground level will be considered as the crown of the nearest Road, which should be taken as "Datum" which is however, subject to final confirmation by the Owner / Architects. All levels shown in the drawings are to be strictly adhered to.

## **26. Benches**

The contractor is to construct and maintain proper benches of all the main walls, in order that the lines and levels may be accurately checked at all times.

These benches will consist of Sal wood post of adequate length and minimum diameter 75 mm to be driven in the ground at suitable distance as directed encased with brickwork. The wire nails will be driven on the top of Sal wood post on the centre lines of columns, walls, inside and outside faces of foundations trenches, in order that lines may be stretched between the benches and accurate intersection of excavation. Centre line of walls, columns etc. may be clearly indicated and checked at any time if it is so required.

## **27. Removal of Improper work**

The Owner 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 Owner Architects are not in accordance with specification or instructions, the substitution or proper re-execution of any work 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 Owner 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 Owner/Architects shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate which may be given by the Architects shall relieve the contractor from his liability in respect of unsound work or bad materials.

## **28.0 Dismissal of Workmen**



The contractor shall on the request of the Bank immediately dismiss from works any person employed thereon by him, who may in the opinion of the Bank be unsuitable or incompetent or who may misconduct himself. Such discharges shall be the basis of any claim for compensation or damage against the Owner or any of their officer or employee.

### **29.0 Concealed Work**

The contractor shall give not less than 5 days' notice to the Bank / Architect 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 the opinion of the Bank / 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 differences 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 Bank / Architect shall be accepted as correct and binding on the contractor.

### **30.0 Substitution**

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Bank / Architect in writing for any such substitution well in advance. Materials designated in this specification indefinitely by such term as "Equal" or "Other approved" etc. specific approval of the Bank / Architect has been obtained in writing.

### **31.0 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 the contractor shall inform the Owner that he has completed the work and it is ready for inspection.

On completion the contractor shall clean all windows and doors including the cleaning and oiling if necessary, of all hardware, inside and outside, all floors, staircases and 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 Owner.

### **32.0 Defects after Completion**

The contractor shall make good at his own cost and to the satisfaction of the Owner all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of the work. In default the Owner may employ and pay other persons to amend and make good such damage, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Owner or may be deducted by the Owner, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under Clause No. 1.(c) together with any expenses the Owner may have incurred in connection therewith.

### **33.0 Idle Labour**

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



**34.0 Guarantee for the Specialised 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 item / items for a period of more than 12 months, the guarantee/guarantees in case of those items shall remain valid even after expiry of the defect liability period of 12 months as stipulated in the contract.

**35.0 Declaration**

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, Technical Specifications and understood the same particularly the contents of the Performance Guarantee Bond and on the basis of the same I/We quoted our rates in the schedule of quantities attached with the tender documents.

I/We shall also uniformly maintain such progress with the work, as may be directed by the Owner/Architects to ensure completion of same within the target date as mentioned in the tender document.

\_\_\_\_\_

Signature of Tenderer

Address:

Witness:

1) \_\_\_\_\_

2) \_\_\_\_\_

Dated:

\_\_\_\_\_



**Annexure -V**

**LETTER OF UNDERTAKING**

To,

**The AGM  
RACPC, 4<sup>TH</sup> Floor,  
Admin. Office, unit-1,  
Bhubaneswar”**

Dear Sir,

**TENDER FOR AIR-CONDITIONING WORKS OF RACPC AT 4<sup>TH</sup> FLOOR, ADMIN. OFFICE, UNIT-1 BHUBANESWAR**

Having examined the terms & conditions, drawings, specifications, design relating to the works specified in the memorandum hereinafter set out and having visited and examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto and affecting the quotation, I/We hereby offer to execute the works specified in the said memorandum within the time specified in the said memorandum on the item rate basis mentioned in the attached schedule and in accordance in all respect with the specifications, design, drawings and instructions in writing referred to in conditions of Tender, conditions of contract and with such conditions so far as they may be applicable.

**MEMORANDUM**

(a)	Description of work	<b>Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar</b>
(b)	Earnest Money	<b>Rs.6500/- (Rupees Six Thousand Five Hundred Only)</b> by means of Demand Draft / Pay Order from any scheduled Nationalized Bank drawn in favour of “SBI” and payable in “ <b>Bhubaneswar</b> ”.
(c)	Time allowed for completion of work from the date of issue of work order.	<b>30 Days</b> from the date of commencement as per tender.

1. Should this tender be accepted, I/we hereby agree to abide by and fulfill the terms and provisions of the said conditions of Contract annexed hereto so far as they may be applicable or in default thereof to forfeit and pay to SBIIIM, the amount mentioned in the said conditions.

2. I/we have deposited Demand Draft / Banker’s Cheque / FDR for a sum of **Rs.6500/- (Six Thousand Five Hundred Only)** as Earnest money deposit with the SBI. Should I/we do fail to execute the contract when called upon to do so, I/we hereby agree that this sum shall be forfeited by me/us to SBI.

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



4. We understand that as per terms of this tender, the SBI may consider accepting our tender in part or whole or may entrust the work of various buildings/branches/items **proposed** (i.e. **Air-conditioning works of RACPC at 4<sup>TH</sup> Floor, Admin. Office, unit-1 Bhubaneswar** ) in phases. We, therefore, undertake that we shall not raise any claim / compensation in the eventuality of Bank deciding to drop any of the Branch /items from the scope of work of this tender at any stage during the contract/execution period. Further, we also undertake to execute the work entrusted to us in phases on our approved rates and within the stipulated time limit without any extra claim for price escalation.

As when ask by the Bank, I/we shall submit the supporting technical data sheet, specification and make of the items as per the BOQ.

We, hereby, also undertake that, we will not raise any claim for any escalation in the prices of any of the material during the currency of contract/execution/completion period.

5. I / We have not made any modification / corrections / additions /deletions etc. in the PQ/Tender documents downloaded from web by me / us. In case at any stage later, it is found there is difference in our downloaded PQ/Tender documents from the original and / or any documentation, SBI shall have the absolute right to disqualify / reject our Tender and also debar me / us in participating in any future tenders of SBI without any prior intimation to me / us.

6. I/We hereby undertake and confirm that all the information furnished in this tender is correct and true to the best of our knowledge and belief and we own full responsibility for its correctness and authenticity

7. I / We hereby understood and accordingly confirm that all Tender documents along supporting documents/annexures etc. are required to be submitted by us strictly in the prescribed format only. In case, the Bid/documents submitted by us along with this tender is found in any other formats and not complying this condition, we hereby authorize the SBI to summarily reject our tender for which we shall not make any protest.

Yours faithfully,

Signature of contractor  
With Seal



**Annexure VI**

**CERTIFICATE**

Name of the work: \_\_\_\_\_

Tender No: \_\_\_\_\_

Work order/Letter No: \_\_\_\_\_

Work Order Value: \_\_\_\_\_

This is certify that the measurements on the basis of aforesaid bill/invoice no, were made and have been taken jointly on\_\_\_\_\_. The measurements have been corrected as physically observed/found on verification of dimensions/measurements as site, as per tender specifications.

Dated

Signature of authorized representative/Contractor  
Name of firm: \_\_\_\_\_

The work is completed in all respects and found satisfactory.

Name and signature of Project Architect.  
Dated:

Signature of Project Engineer, SBI  
Designation:  
Dated:

Forwarded to SBI for necessary action please.

Signature of the Branch Head

Name of the Branch Manager:\_\_\_\_\_

Seal of the Branch:



Date:

## SAFETY CODE

### **SAFETY MEASURES AT SITE:**

1. 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.
2. First Aid Box should be kept at site with all requisite materials.
3. No one should be allowed to inspect / work at a height without Safety Belt.
4. 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).
5. 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.
6. 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.
7. 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.
8. 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 30 cms.
9. Adequate precautions shall be taken to prevent danger from electrical equipment. For electrical on line works gloves, rubber mats, and rubber shoes shall be used.
10. 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.

11. 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) Those engaged in white washing and mixing or stacking of cement bags or any materials which is 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.
12. 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, rubber footwear etc.



Signature of Tenderer:

Date:

### **TECHNICAL SPECIFICATIONS**

Unless otherwise mentioned in item description / bill of quantities and / or instructed by architects/Engineer following specifications shall be adopted. All works to be carried as per detailed execution drawings and instructions of Architect/Engineer in-charge. Sizes mentioned hereunder or elsewhere in these tender documents are finished sizes and center to center distance is the maximum permissible distance.

#### **DUCTABLE SPLIT AIR CONDITIONERS**

All the Duct-able split air conditioners units shall be factory assembled and tested complete in all respects and conforming to Indian/ASHRAE standards. They shall be supplied pre-charged with refrigerant gas and oil ready for installation at site. The Air-cooled split Unit shall be a two piece assembly comprising of the following:

#### **DESIGN CRITERIA**

##### **App. Area considered**

**for air-conditioning** : --sq. ft

**Ambient Condition** : Summer : DB 48.0°C (118.4 °F)

WB 37.7°C (100 °F)

Monsoon : DB 32.2°C (90 °F)

WB 30.3°C (86 °F)

**Inside Condition** : DB 24 ± 1°C (75° ± 2°F)

RH 70.0 ± 5%

**Occupancy** : 35 persons (Approx).

**Light Load** : @ 1.0 Watt/sq. ft.

**Fresh air** : 17 CFM/person, as per ASHRAE Standard 62.1-2004.

**Proposed system** .....TR duct able split AC with scroll compressor.

#### **CONDENSING UNIT**

1. Hermetically sealed Scroll type compressors with refrigerant cooled motor.
2. Air-cooled Condenser with copper coil.
3. Condenser fan with sufficient air discharging capacity.
4. Steel structure with sheet metal casing in which the above are mounted.
5. Automatic capacity control devices along with safety gauges/devices.
6. Full charge of R410A/R32 along with refrigerant oil.

#### **EVAPORATOR UNIT**

7. Direct expansion-cooling coil.
8. Inter connected Seam less copper refrigerant piping.



9. Centrifugal fan with motor.

### **COMPRESSOR**

The Scroll compressor shall be Hermetically sealed in design. The compressor shall be a direct shaft mounting of the refrigerant cooled hermetic motor.

### **EXTERNAL**

The compressor housing shall be made of gas tight steel shell which is made up of two shells, these shells are welded together to form a Hermetic (Airtight) seal. One shell is fitted with a suction tube and a Glass-matic terminal used for supplying power to the motor, fitted inside the compressor shell and the other is fitted with a discharge tube. The shell also acts as an oil sump.

### **INTERNAL**

The internal parts shall be accurately machined for installation of the required parts. The Impellers, valve plate and connecting shaft shall all be made of Aluminum alloy having high compressive strength.

### **LUBRICATION**

The oil pump formed by drilling number of holes on the surface shall do the lubrication of the bearing. One end of the crankshaft shall be always dipped in the oil.

### **CONDENSER COIL**

The condenser coil shall be internally grooved copper tube with split aluminum fins. The condenser shall be fitted with a fan of propeller type. The condenser shall be built on an air-cooled design using outside ambient air up to 45°C to condense the refrigerant. The condenser coils shall be constructed of 12 mm OD integrally enhanced Seam less copper tubes arranged in staggered rows. This shall have a minimum of 3 rows to provide proper heat rejection. The copper tubes shall be mechanically expanded into lanced and rippled Aluminum fins of minimum 0.1mm thick with 13 fins per inch.

### **CONDENSER FANS**

The condenser fans shall be of propeller type with the motor directly fitted to the shaft of the fan. The fan shall have a minimum of 6 blades for delivering maximum air quantity of air without any motor overloading. The fan blade should be either moulded unbreakable plastic or die cast aluminum material. The motor shall be of TEFC construction and shall be of IP 55 protection with resistant to high ambient.

### **REFRIGERANT PIPING**

The refrigerant piping interconnecting all the condensing unit and the evaporator unit shall be of Seam less copper with tube dia as required and having a wall thickness of minimum 2mm and able to withstand pressure up to 450 PSI. Necessary gas mufflers, flexible connections on discharge and suction side shall be provided to reduce vibration / noise of refrigerant/compressor.

### **SAFETY DEVICES**

The condensing units shall be provided with all necessary safety devices, which are essential for proper operation of the equipment. These shall not be limited to the scope of this specification and



shall have all safety devices required for optimum operation of the unit. The following minimum safety devices are suggested:

- Low voltage cutout
- Low evaporating cutout
- In-built internal overload
- Pressure relief valve
  - Low pressure cutout
- High condensing pressure cutout
- Motor overload trip/protection
- Thermostat for energy saving

## **MOTOR**

Motor shall be squirrel cage constant speed, suitable for 220+ 10 % volts, 50 Hz, 1phase power Supply. Motor speed shall not exceed 1450 RPM. The fan and motor combination selected for Particular requirement shall be for the most efficient type so that sound level and energy consumption is minimal. Motor conduit box shall be mounted on exterior of the casing. Wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit.

## **EVAPORATOR UNIT**

### **FAN**

Fan impeller and housing shall be fabricated from heavy gauge steel. Fan wheels shall be of double width, double inlet forward-curve mulch-blade type enclosed in Housing and mounted on a common shaft. Fan housing shall be made of die-formed steel sheets with streamlined inlets and guide vanes to ensure smooth airflow into the fans. The fan shall be belt driven with pulley having belt-tension arrangements. All rotating parts shall be statically and dynamically balanced. Fan speed shall not exceed 1500 RPM and maximum fan outlet velocity shall be 450 meters per minute (1500 FPM). The average air quantity for the air handling units shall be 400 CFM per TR of refrigeration. However the fan should be facilitated with capacity adjustment for lower or higher air quantities as per individual air requirements as the site demands. Stretch less V-Belts should be used. The fan shall be able to deliver the desired air quantity with sufficient static pressure for carrying out the ducting and also be able to add fresh air.

## **COOLING / COILS**

Cooling coils shall have 12.5 to 15 mm dia copper tubes min. 24 gauge thick, with aluminum fins firmly bonded to copper tubes assembled in zinc coated steel frame. Face and surface areas shall be such as to ensure rated capacity from each unit and such that the air velocity across each coil shall not exceed 150 meters per minute. The coil shall be pitched in the unit casing for proper drainage. Each coil shall be factory tested at 21 Kg / Sq. cm. air pressure while submerged in water. Tubes shall be hydraulically expanded for minimum thermal contact resistance with the fins. Fin spacing shall be 13 fins per inch. (4-5 Fins/CM.). The units shall be fitted with minimum 3-row coil for giving the cooling effect.

## **STEEL STRUCTURES**

The evaporator unit shall be assembled on formed corrosion resistant galvanized sheet metal steel sections which shall be pretreated and finished with epoxy painting/polyester powder coating. The steel structure shall be sturdy enough to withstand transport without getting distorted and when stationary handle the equipment load. There should be proper encasing of unit with acoustic lining in all inside to reduce noise level of the equipment.

## **MOTOR**



Motor shall be squirrel cage constant speed, suitable for 220+ 10 % volts, 50 Hz, 1phase power Supply. Motor speed shall not exceed 1450 RPM. The fan and motor combination selected for Particular requirement shall be for the most efficient type so that sound level and energy consumption is minimal. Motor conduit box shall be mounted on exterior of the casing. Wires from the motor to the conduit box shall be protected from the air stream by enclosing in a flexible metal conduit.

## **PERFORMANCE**

The performance of the unit shall be proved at site at the time of installation and also the power Consumption should not exceed the confirmed rating throughout the period of service of the Equipment. The company shall stand guarantee for the aforesaid condition and shall compensate the client in case the power consumption proved at site is more than the stipulated power. The rate of compensation shall be as indicated in penalty clause as given earlier in the conditions of contract. The contractor shall submit along with the tender the rating charts of the machines offered indicating the percentage capacity, power consumed, rated amperage, locked rotor amps and also inrush currents of equipment at maximum ambient conditions.

## **HIGH WALL MOUNTED UNITS**

- ◆ High 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 410 refrigerant.
- ◆ Additional charge shall be added as per refrigerant piping at site.
- ◆ 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:
  1. Operation Manual
  2. Installation Manual
  3. Installation panel



4. Paper pattern for installation
5. Insulation tape/ Clamps/ Screws.

**NOTE:** All out – door units shall be mounted on balcony types m.s. angle frame structure. the m.s. angle frame structure shall be painted with enamel paint. the shade of the paint shall be approved by the architect / client.

## **GSS DUCTING SHEET METAL WORKS**

Sheet metal ducting required for air distribution system is shown in drawings forming part of these specifications. These drawing indicate the duct sizes and configuration required to meet design air distribution requirements and also to provide the Contractor with necessary data for bidding; they are not meant to serve as working drawings which will have to be prepared by the successful contractor, giving due attention to the structural features of the building and to other site requirements, as well as partition layouts, lighting and false ceiling patterns etc, and for which approval has to be obtained from the Consultants/Owners.

1. GSS sheets shall be used for ducting. Only new, fresh, clean (unsoiled) and bring sheets shall be used.
2. The thickness of the sheets to be used shall be as shown in the table below:

### **RECTANGULAR DUCT**

<b>Dimensions of Ducts (mm)</b>	<b>Guage-GI</b>	<b>Guage-Aluminium</b>	<b>Types of joints</b>	<b>Type of Bracings.</b>
<b>Upto 600</b>	<b>24</b>	<b>22</b>	G. I. Flange at 2.5 Center.	Cross Bracings.
<b>601 to 750</b>	<b>24</b>	<b>22</b>	22 x 25 x 3 mm angle frame with 6mm dia nuts and bolts.	25 x 25 x 3 mm MS angles bracing at 1500mm from joints.
<b>750 to 1000</b>	<b>22</b>	<b>20</b>	25 x 25 x 3 mm angle frame with 6mm dia nuts and bolts.	25 x 25 x 3 mm MS angles bracing at 1500mm from joints.
<b>1001 to 1500</b>	<b>22</b>	<b>20</b>	40 x 40 x 5 mm angle frame with 8 mm dia nuts and bolts.	40 x 40 x 3 mm MS angles bracing at 1500mm from joints.
<b>1501 to 2250</b>	<b>20</b>	<b>16</b>	50 x 50 x 3 mm angle to be cross braced diagonally with 10 mm dia. nuts and bolts with 125 center	40 x 40 x 3 mm MS angles bracing at 1200mm from joints. or 40 x 40 x 3 mm MS angle diagonal bracing.

Sheet metal ducts shall be fabricated as per ISI Standards/SMACNA out of galvanized steel sheets. Sheets used shall be produced by hot dip process and galvanizing shall be Class VI - Light Coating of zinc nominal 185 gm/sq. m.

### **HANGERS FOR DUCT**

<b>Duct Size (mm)</b>	<b>Spacing (M)</b>	<b>Size of MS angle (mm x mm)</b>	<b>Size of rod – dia (mm)</b>
<b>Up to 750</b>	<b>2.5</b>	<b>40 x 3</b>	<b>10</b>
<b>751 to 1500</b>	<b>2.0</b>	<b>40 x 3</b>	<b>12</b>



1501 to 2250	2.0	50 x 3	15
2251 and above	2.0	50 x 3	15

- The fabrication of the ducting including details of transverse joint connections, bracing, seams, etc., for longitudinal joints etc., will be generally as per ISS-655-1963, the intent being to obtain duct pieces that are robust and rigid enough to preclude flutter, buckling etc., and to avoid air leakage's
- Angle iron flanges shall be used
- All supports for ducting shall be provided by the successful contractor, MS angles, rods and other sections shall be used as required for the purpose. The supports shall be taken independently to the building structure, in other words they should not be tied on to supports for light fixtures.
- All bolts, nuts, rivets, washers, etc., used for duct joints shall be of GI and not MS.
- All duct joints shall be made tight and the interior surfaces shall be smooth. Necessary gaskets of rubber or similar material shall be used to secure tightness of joints.
- ALL MS angles, flats, etc., used for flanges, stiffening etc., shall be finished with two coats of Red Oxide and one coat of Black paint. These requirements shall apply to supporting Arrangements / members also.
- Minimum thickness of structural members employed for supports shall be as per IS 800.
- where ducting is supported from ceiling/ roof slab, Anchor grip bolts shall be used to fasten the suspension rods (for duct supports) to the ceiling/ roof slab.
- All civil works involved including the drilling of holes for fixing the grip bolts and any chipping and finishing of the ceiling/ roof slab, if found unavoidable, shall be carried out by the Successful contractor at no extra cost.
- Elbows, bends, offsets, etc. should be fabricated with a width to radius ratio of not less than 1.0 to 1.5. Alternately, turning vanes should be provided at intervals so chosen that the aspect ratio of the various sections so formed by the vanes will be at least five.
- Turning vanes shall be provided at branch take-offs and collars wherever possible. Similarly, straightening vanes shall be provided in all the collars unless and except in case where conditions at site do not permit their installation.
- All supply air diffusers shall be of powder coated extruded aluminum sections and removable core type. Volume control dampers shall be provided for all diffusers.
- Return air diffusers shall be identical to supply air diffusers except that they do not incorporate volume control dampers.
- Supply air grilles shall be double deflection type & powder coated extruded aluminum construction. They shall be complete with volume control dampers of aluminum mounted on grilles. The vanes at the front shall be horizontal while those the rear shall be vertical. The width of the perimeter flanges shall be 32 mm. The vanes shall be 3 mm thick and 25 mm deep.



- Return air grills shall also be Powder coated extruded aluminum construction. They shall incorporate (only) horizontal vanes, which shall be fixed. The perimeter flanges shall be 32 mm width. The vanes shall be 3 mm thick and 25 mm deep. The pitch of vanes shall be 20 mm.
- All dampers shall be louvered dampers (of GI) of robust construction and tightly fitted in epoxy painted MS angle iron frame. They shall be provided with suitable links, levers and quadrants as required for their proper operation, control or setting in any desired position.
- Dampers and their operating devices shall be made robust, easily operable and accessible through suitable access doors in the ducts/ false ceiling. Where required, dampers shall have an indicating device, clearly showing the damper position at all times.
- Dampers shall be placed in ducts and at every branch (whether or not indicated on the drawings) for the proper volume control and for balancing the system.
- All sheet metal connections, partitions and plenums required to confine the flow of air to and through the filters, fans, etc., shall be constructed of 18 G GI Sheets, thoroughly stiffened with 25 mm x 25 mm angle iron braces and fitted with all necessary doors as required to give access to all parts or apparatus. Doors shall not be less than 450 mm x 600 mm in size.
- Where sheet metal ducts sleeves terminate in woodwork, brick or masonry openings, Tight joints shall be made by means of closely fitted heavy flanged collars.
- Connection of ducts to fans shall be of suitable flexible synthetic material.
- On completing the erection, the system shall be pressure tested with dry nitrogen or carbon Dioxide. The test pressures shall be as under for R-22

	UOM	Value
High pressure side	kg/sqcm(psi)	28./5 (420)
Low pressure side	kg/sqcm(psi)	10.0 (150)

1. The systems shall hold the pressure for a minimum period of 24 hours without revealing any leaks. After the leak test has been completed successfully, the pressure due to the nitrogen gas/carbon-dioxide in the system shall be used to blow-out the system.
2. The system shall then be dehydrated by drawing a vacuum. The vacuum achieved shall be at least as deep as 500 microns and shall be maintained for a period of atleast 24 hours after the vacuum pump has been shut off.

**THERMAL INSULATION**

- ✓ The scope of this Section comprises the supply and application of insulation to condensate drain piping, refrigerant piping, sheet metal ducting,
- ✓ The materials used shall be Class O Nitrile foam insulation for suction lines, condensate drain pipes and equipment's. While for sheet metal ducting, Class O Nitrile rubber foam sheet form shall be used.
- ✓ The Nitrile Rubber Foam used shall conform to the following requirements:

a)	Density	Not less than 43 kg/ cum
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b)	K value	Not greater than 0.032 w/m deg C at 0 Deg. C
c)	Water vapour	Not more than $1.9 \times 10^{-11}$ g/s.mPa
d)	Moisture Resistance factor( $\mu$ ):	>10000
e)	Fire Safety	Class O as per BS 476 Part 6

## ACOUSTIC LINING

Where stipulated the supply air ducts – whether of masonry or sheet metal – shall be lined acoustically using 25 mm thick rigid fiber glass boards with 28 gauge aluminum perforated facing on one side. The density of the material used shall be 48 kg/ cum.

The rigid fiber glass boards shall be fixed to the inner surface of the ducts so that the plain fiber glass finish facing will be in contact with sheet metal ducting while the face with RP tissue facing will be in contact with air.

The boards shall be fixed using GI bolts, nuts, & washers.

The joints between the boards be sealed using PVC adhesive tapes.

The joints between the boards be sealed using PVC adhesive tapes.

## REFRIGERANT PIPING INSULATION

Insulation of refrigerant piping shall be carried out with Nitrile Rubber material. The Nitrile Rubber shall be closed cell structure of minimum 13mm thickness.

### Application

- Clean the surface of the pipe which is to be insulated.
- Select the size of the section and cut the section longitudinally along with length. The cut shall be straight throughout the length.
- Apply a thin layer of Adhesive on the surface of the Pipe and leave it to dry for 2-3 minutes.
- Fix the insulation material after drying and both the surfaces shall be matched properly.
- Apply self adhesive black cotton tape on both the longitudinal and circumferential joints.

## VOLUME CONTROL DAMPERS

Volume control dampers shall be made out of 1.2 mm thickness galvanized steel sheet frame with 1 mm thick blade. Blades should be double skinned aerofoil construction and opposed blades should be at 50mm pitch centres. The blades should be mounted in nylon bushes operated by an interior wheel gear system. The operating lever or knob shall have locking arrangement and markings of various positions including open and closed position.

## INSULATION TO REFRIGERANT PIPING

FR nitrile rubber / cross linked closed cell polyethylene tube insulation of 9mm up to 1” dia pipes and 13mm 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.

## COMMUNICATION CABLE AND CONTROL CABLING



Communication cable and control cabling: Communication cable and control cabling should be of nonpolar 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.

### **DRAIN PIPING**

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 6 mm thick nitrile rubber tube insulation. Insulation shall be finished with self-adhesive black cotton tape.

### **SUPPLY AND RETURN AIR GRILLS**

Supply and return air grilles shall be of anodized extruded Aluminum construction with adjustable bars. Supply air grills shall be generally double deflection type backed with GI damper. The supply/return air grills being provided with removable key operated volume control dampers. Aluminum supply and return grills shall be powder coated and should have the color of client's choice as per bill of quantities.

### **SUPPLY AND RETURN AIR DIFFUSERS**

The supply air diffuser shall be provided with removable key operative volume control dampers. Aluminum supply and return air diffusers shall be powder coated and should have the color of client's choice or shall be extruded Aluminum. Supply/return air linear diffuser shall be extruded Aluminum construction, square, rectangular, or round diffusers with flush fixed pattern or adjustable flow pattern. Diffusers for different spaces shall be selected in consultation with the Client/Consultants. Supply air diffusers may be equipped with fixed air-distribution grids, removable key-operated volume control dampers, and anti-smudge rings as per requirements of schedule of quantities.

### **FRESH AIR INTAKE AND EXTRACT LOUVERS**

All the louvers shall be rain protection type and shall be fabricated from extruded aluminum section. The louvers shall additionally be provided with heavy duty expanded metal bird screen and Cowl. They shall be factory made with powder coating finish. The louvers shall be provided with control damper with lever for operation and control of fresh air.

## **TECHNICAL SPECIFICATIONS: AIR COOLED SPLIT /CASSTEE TYPE AIR CONDITIONERS**

### **1.0 GENERAL:**

1. Air cooled split type air conditioner shall consist of units.

Evaporator unit ( indoor unit )  
Condensing Unit ( Outdoor Unit)

1. The evaporator unit comprises evaporator coil, evaporator fan assembly installed together in a single sheet metal casing and with inter-connecting refrigerant piping, refrigerant controls, safety devices, etc., The unit shall be complete with electronic center & control pad incorporating the thermostat & speed control.



2. The condensing unit comprise compressor-motor unit, condenser coil, condenser fan, fan control, casing supporting stand etc.,.
3. Both the evaporator unit and the condensing units shall be factory manufactured.
4. The Panel for casing shall be machine pressed and folded. The entire casing shall be factory manufactured, it shall be of robust construction and shall present a neat appearance. The tenderers shall also bring out in their tenders clearly the manufacturing techniques, finishes employed to meet the service conditions involved, etc.,.
5. The units supplied with control panel incorporating switch fuse units, contactors, over load relays, single phase preventers, push buttons, etc., compressor and condenser fans.

## **2.0 EVAPORATOR UNIT.**

- All the components of the evaporator units shall be housed in a sturdy MS/GSS casing. In the case of MS casing, it should be dully painted/treated to resist corrosion, rust and other deleterious effects.
- Removable panels shall be provided to finish access to the cooling coil, fan motor compartments filter to facilitate servicing and maintaince work.
- The fan section shall consist of fan, fan casing ( scroll) shaft and driven motor.
- The fan shall be centrifugal type and impeller shall incorporate forward curved blades. the fan shaft and impeller shall be both statically and dynamically balanced.
- The fan scroll shall be designed and shaped to optimize recovery static pressure and maximize efficiency at rated delivery and static pressure
- The fan shall be direct driven by a TEFC squirrel cage induction motor. the tenderers shall confirm electrical characteristics of the motor as required in technical data.
- The fan motor drive etc., shall all be design and mounted so as to minimize noise and vibration.
- The cooling coil shall be of copper tubes and aluminum fins, the concentration shall be not less than 3/cm (8\in).

## **3.0 CONDENSING UNIT :**

The unit shall be factory manufactured and shall be suitable for outdoor installation. It shall comprise compressor unit, condenser coil, fan motor, drive casing supporting stands etc.,.

The compressor unit shall consist of direct driven reciprocating compressor with compressor and motor housed in a common shell, it shall be either hermetic or semi-hermetic type. in case the compressor motor is semi-hermetic type, the end plate shall be bolted to the shell.

The compressor shall be suitable for use with ECO FRIENDLY refrigerant.

The tenderers are required to narrate in detail all protective devices, controls and such other features provided for the compressor motor units offered by them, like high temperature protection and over current protection, high and low pressure cut-outs. low oil pressure protection etc.,.



The condensing unit shall be installed on a pedestal on the terrace of the building as shown in the drawing. The fan shall be propeller type direct-driven by an electrical motor. The unit shall be mounted in such a manner as to minimise transmission of vibration to the structure using vibration isolation pads, if necessary to secure satisfactory results.

The casing and structure for the condensing unit shall be of robust construction. The panels shall be of heavy gauge hot dip galvanized steel and they shall be machine-pressed and folded. All joints shall be folded joints. The supporting structure shall use only hot dip galvanized sections, i.e. angels channels etc.,.

The tenderers shall bring out in any case clearly, (and in detail) the details of construction of the equipment offered by them, highlighting in particular, the thickness and kind of materials used, manufacturing techniques employed, finish provided for whether protection etc.,.

Air cooled condensing unit shall incorporate necessary number of propeller fans of adequate size to obtain the required air flow rate under operating conditions. The fan shall be balanced both statically and dynamically. The fan motor shall be of TEFC squirrel cage construction.

The fan motor sets shall be complete with protecting guards.

The condenser coil shall be made of copper tubes and aluminum fans. The coils shall be sized so as to optimize performance with respect to air flow rate, pressure drop, condensing temperature, power consumption etc., thus the values furnished for the parameters of the coil in section III, schedule of equipment shall be regarded as suggested values rather than specified values.

The coils shall be pressure tested for values not less than those indicated below.

Factory test - kg/sqcm (psi) : 30 (440)

Field test - kg/sqcm (psi) : 25 (440)

The coils shall be so positioned with respect to the floor level that, dust pick-up by entering air is minimized.

As noted in clause the condensing units have to be installed out door on suitable pedestals or any other appropriate supporting arrangements. Masonry work, if any required for supporting units shall be provided by the owner, but the tenders shall furnish all necessary information including drawings. Further any supports made of MS structural sections if required should be designed, supplied and installed by the air conditioning contractor himself. He shall show the details of such supports in appropriate drawings and shall obtain the approval of the owners/consultants before providing them. The charges for such works shall be included in the prices quoted by the tenderers: in any case, no extra sum will be payable on that account.

#### **4.0 REFRIGERANT PIPING**

1. The specifications that follow cover the requirements of piping.
2. Only copper piping/tubing of refrigeration quality of company approved size shall be used. All piping / tubing shall be new fresh, clean and dry.
3. Fittings like bends, tees, sockets, etc. shall be of copper or forged brass. Flare type fittings may be used for copper tubing while hard drawn tubes upto and including 15mm size may be



bent to from 90 Deg bends with throat radius being not less than 3 times the tube diameter. for bigger sizes, bends should be used as noted already.

4. Liquid line strainers shall be made of brass shall incorporate bronze screen and permanent management. Strainers shall be provided with shut valves on either side.
5. Thermostatic expansion valve shall be complete with remote bulb and external equalizer and external super head adjustment. Solenoid valves shall have manual opening system to serve as by - pass in case of failure of solenoid valve. Liquid-moisture indicator shall be provided in the liquid line.
6. Flare type joints may be used for copper tubing while for a hard drawn pipe only brazed joints shall be used. For Small lines also such as equalizer lines, expansion valves connections, gauge connections, connecting pressure switches etc., Flared fittings and joints shall be used.
7. Piping shall be insulated sufficient number of bends and turns to ensure sufficient fleetly and minimize vibration. Supports, Clamps, Saddles, hangers etc., of adequate strength should be provided as required to support the piping adequately and minimize vibration.
8. Necessary isolating material like rubber, felt, spring, etc., should also be provided as an additional measure to limit transmission of noise and vibration.
9. Refrigerant piping shall be carried out giving due consideration to the need to ensure oil return and avoid liquid slope-over into the compressor, Accordingly, the piping shall include necessary loops, traps, slopes, etc., to achieve these objectives.
10. While installing the piping, adequate clearance between pipes should be provided for insulation is called for
11. On completing the erection, the system shall be pressure tested with dry nitrogen or carbon de-oxide. The test pressure shall be as under.
12. High Pressure side - kg /sqcm(psi) : 25 (365)
13. Low Pressure side - kg /sqcm(psi) : 110 (150)
14. The system shall hold the pressure for a minimum period of 24 hours without revealing leaks.
15. After the leak test has been completed successfully, the pressure due to Nitrogen or Carbon-de-oxide in the system.
16. The System shall then be dehydrated by drawing a vacuum. The vacuum achieved shall be achieved shall be at least as deep as 500 microns and shall be maintained for a period of at least 24 Hours after the vacuum pump has been shut off.

#### **INSULATION FOR REFRIGERANT PIPING:**

17. All suction lines ( insulated both indoors & outdoors) and liquid lines laid outdoors shall be applied over a coat of bituminous primer applied on the pipe surface.

#### **CONDENSATE DRAIN PIPING:**

18. PVC Pipes ( Medium) shall be used for condensate drain piping.
19. Piping shall be supported suitably on walls/floor and all charges involved there to shall be applied in the prices quoted by the tenderers.



20. While Installing the piping the contractor shall keep in mind the requirement that it should not foul with the structural or architectural features of the building. Further, all piping must be installed in a neat and workman - like - manner.

### **MODE OF MEASUREMENTS**

21. Unit prices in the schedule of quantities.
22. The item description in the schedule of quantities is in the form of a condensed resume. The Unit price shall be held to include everything necessary to complete the work covered by this item in accordance with the specifications and drawings. The sum total of all the individual item prices shall represent the total price of the installation ready to be handed over.
23. The Unit price of the various items shall include the following.
24. All equipment, machinery, apparatus and materials required as well as the cost of any tests which, the consultant may request in addition to the tests generally required to prove the quality & performance of equipment.
25. All the labour required to supply and install the complete installation accordance with the specifications.
26. Use of any tools, equipment's, machinery, lifting tackle, scaffolding, ladders, etc., required by the contractor to carry out his work.
27. All the necessary measures to prevent the transmission of vibration.
28. The necessary material to isolate equipment foundations from the building structure, wherever necessary.
29. Storage and insurance of all equipment, apparatus and materials.
30. The contractor's unit price shall include all equipment, apparatus material and labour indicated in the drawings and/or specifications in conjunction with the item in question on its own ( and within the system as a whole ) complete, even though not specifically shown described or otherwise referred to.

### **WARRANTY**

- One year over all warranty to be provided on Cassette from the date of completion of work and handover to the Bank. During warranty period four free servicing (in each quarter) of ACs to be done and service report duly signed by the branch to be submitted to the SBI.

### **CAMC :**

- Four servicing reports carried out during warranty period must be submitted to the SBI before expiry of warranty period. Security deposit shall be released only after receiving of all four service report.
- Initially, work order will be placed for supply, installation and buy back items only excluding CAMC.
- CAMC amount will be paid quarterly after submission of service report duly certified by the Branch.



- Vendor shall enter into an agreement with the Bank for CAMC and details scope of the works will be provided by the Bank.

## **APPROVED MAKES**

### **MACHINES**

**1 .Hi-wall/ Ductable/ Cassette Units : Daikin, Carrier, Blue Star, Mitsubishi Heavy and Mitsubishi Electric, Toshiba, Trane, O-General, LG, Voltas, panasonic and Hitachi.**

**2. Copper Piping : Totaline, Max Flow, Rajco, Mandev, Nippon**

**3. Nitrile Rubber Insulation : Supreme, A-flex, Armacel**

**4. Cables: Finolex / RR cables /polycab**

**5. Drain Pipe: Supreme, Sudhakar, National, Prince, Astral, Prime**

- Note: -**
- 1) The contractor should obtain prior approval from SBI/ Consultants/Project in charge before placing order for any specific materials SBI may / delete any of the makes or brands out of the above list.
  - 2) All materials should conform to relevant standards and codes of BIS. Materials with I.S.I. mark shall be used duly approved by the SBI Engineer/Architect.
  - 3) Any material is found to be not up to the mark, the contractor will have to produce original bills/certificate from the manufacturer or his authorized Distributor for authenticity and genuineness of the material for consideration and as per make approved by the SBI. The same will not be considered for payment.
  - 4) Any additional item as per BOQ specifications or as per the instructions of the bank / Consultants. Any of the above items / other items if any will be as approved by the Consultants & Engineer-in-charge.



## TECHNICAL SPECIFICATIONS

Tenderer shall furnish the following technical data of the equipment and accessories offered by them as per the scheme and bill of quantities.

Sl. No	Description	Unit	Condition of services
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### Indoor Unit/Evaporator Unit for Both Hi-wall & Cassette AC

- 1 Unit no./model No.
- 2 Manufacturer
- 3 Overall dimension
- 4 Fin Material
- 5 Air quantity M<sup>3</sup>/hr
- 6 Fan outlet velocity M/s
- 7 No. of blower Nos.
- 8 Fan speed RPM
- 9 Motor rating HP
- 10 Type of air filters

### Compressor for Both Hi-wall & Cassette AC

- 1 Type: Reciprocating/screw/rotary/scroll/twin rotary
- 2 Make
- 3 Model
- 4 Refrigerant

### Condenser for Both Hi-wall & Cassette AC

- 1 Type
- 2 Make
- 3 Model
- 4 Tube Material

### TOTAL POWER CONSUMPTION OF THE UNIT:-

- For 4.0 TR Inv. Cassette Unit.....
- For 3.0 TR Inv. Cassette Unit.....
- For 2.0 TR Inv. Cassette Unit.....
- For 1.5 TR Inv. Split Unit.....
- For 1.0 TR Inv. Split Unit.....

### TOLERANCES:-

- Voltage
- Power Factor
- Frequency

### PIPES & FITTINGS:-





- Material
- Thickness / Diameter

#### **INSULATION MATERIAL:-**

- Material
- “K” Value at 10°C Mean temperature
- Density

#### **CABLES:-**

- Make
- Type
- Grade

#### **WARRANTY**

- One year over all warranty to be provided on Cassette from the date of completion of work and handover to the Bank. During warranty period four free servicing (in each quarter) of ACs to be done and service report duly signed by the branch to be submitted to the Branch.

#### **CAMC :**

- Four servicing reports carried out during warranty period must be submitted to the SBI before expiry of warranty period. Security deposit shall be released only after receiving of all four service report.
- Initially, work order will be placed for all the items of price bid excluding CAMC.
- CAMC amount will be paid quarterly after submission of service report duly certified by the Branch.
- Vendor shall enter into an agreement with the Bank for CAMC and details scope of the works will be provided by the Bank.

#### **APPROVED MAKES**

##### **MACHINES**

- 1 .Hi-wall/ Ductable/ Cassette Units : Daikin, Carrier, Blue Star, Mitsubishi Heavy and Mitsubishi Electric, Toshiba, Trane, O-General, LG, Voltas, panasonic and Hitachi.
2. Copper Piping : Totaline, Max Flow, Rajco, Mandev, Nippon
3. Nitrile Rubber Insulation : Supreme, A-flex, Armacel
4. Cables: Finolex / RR cables / polycab
5. Drain Pipe: Supreme, Sudhakar, National, Prince, Astral, Prime

**The bidder must Tik (  ) mark on the approved make considered in this tender**

**Note: The vendor should be ensured that they will provide immediate company based service at Bhubaneswar. Tender should be submitted by the Vendors having authorisation by the OEM. The Vendor should qualify the Technical bid & the lowest bidder will be declared**



auction. The rate should be quoted against each item as mentioned in BOQ and GST as per works contract will be paid extra on total amount (i.e. A+B). No advance is permitted in any case.

**Bill Format**

<b>Sl.no</b>	<b>Description</b>	<b>Tender qty</b>	<b>Unit</b>	<b>Unit wise tender Rate</b>	<b>Tender Amt</b>	<b>Actual Qty</b>	<b>Actual Amt</b>
				<b>Total</b>			



I -- RUNNING A/C BILL

- (i) Name of the Contractor / Agency :
- (ii) Name of Work :
- (iii) Sr. No. of this Bill :
- (iv) No. and date previous bill :
- (v) Reference to Agreement No. :
- (vi) Date of written order to commence :
- (vii) Date of completion as per agreement :

Sl. No.	Item Description	Unit	Rate	As per tender	
			(Rs.)	Qty.	Amount (Rs.)
1	2	3	4	5	

Up to Previous R/A Bill		Upto Date (Gross)		Present Bill		Remarks
Qunty.	Amount (Rs.)	Qunty.	Amount (Rs.)	Qunty.	Amount (Rs.)	
6		7		8		9

- 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 specially

\_\_\_\_\_  
Net value since  
Previous bill



III - C E R T I F I C A T E

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

\_\_\_\_\_  
Signature and date of  
Contractor

\_\_\_\_\_  
Signature and date of  
Architect's representative

\_\_\_\_\_  
Signature and date of  
Site Engineer

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

\_\_\_\_\_  
Signature of Architect

\_\_\_\_\_  
Signature of Site Engineer / Bank's Engineer



Details of Insurance Policies

Type of Policies	Name of Insurance	Amount (Rs.)	Policy No.	Validity
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CAR Policy including  
3rd Party Liability

Workmen's Compensation

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Remarks:

1. This is only on-account payment and is not to 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 contact the undersigned and oblige.

Architects



PROFORMA OF HINDRANCE REGISTER

Name of Work : \_\_\_\_\_ Date of start of work : \_\_\_\_\_  
Name of Contractor : \_\_\_\_\_ Period of completion : \_\_\_\_\_  
Agreement No. : \_\_\_\_\_ Date of completion : \_\_\_\_\_

Sl. No.	Nature of hindrance	Date of occurrence of hindrance	Date of which hindrance was removed	Period or hindrance	Signature SE/PE	Remarks
1	2	3	4	5	6	7

SE = Site Engineer

PE = Project Engineer

Place : \_\_\_\_\_

Date : \_\_\_\_\_



**PROFORMA OF REGISTER OF MATERIAL AT SITE ACCOUNT**

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

Sl. No	Date of Re-ceipt	Received form / issued to (with)	Re-ceipt	Issue	Balance	Initials of Contractors	Initials of Bank's / Architect's Representative	Remarks

**PROFORMA FOR APPLICATION BY CONTRACTOR FOR EXTENSION OF TIME**

1. Name of the Contractor
2. Name of the works 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 extensions 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

**Proposed Branch Layout**