

Tender issuing Authority - Regional Head

Union Bank of India, Regional office, Andheri,

6TH Floor, A Wing, Kaledonia Building,

Opp Vijay Nagar Housing Society,

Sahar Road, Andheri East, Mumbai 400069.

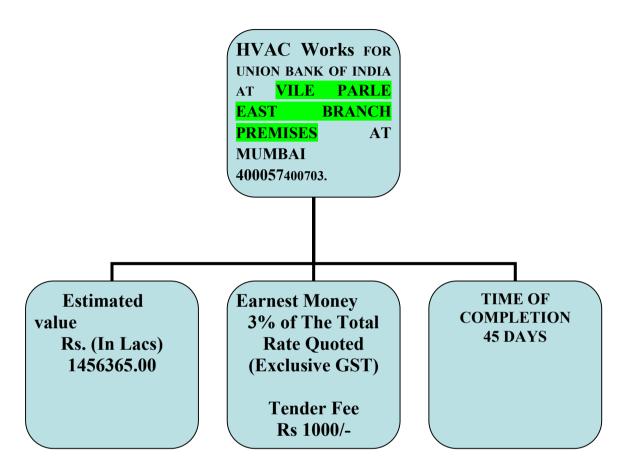
TENDER DOCUMENT

FOR

HVAC/Furnishing works of Alternate Premises of Vile Parle East Branch Premises at Shop No 2 & Shop No 3, Trinity Square, Monghi Bhai Road, Vile Parle East, Mumbai 400057.

> DATE OF ISSUE: - 03/06/2022 TO 14/06/2022 SUBMISSION OF TENDER: - 14/06/2022 UPTO 03:00 PM TENDER OPENING: - 14/06/2022 TIME- 03:30 PM

Page 1 of 45



Contact Persons on behalf of UNION BANK OF INDIA.

To, The Chief Manager (Operation) Union Bank of India , Regional office , Andheri, 6TH Floor , A Wing, Kaledonia Building, Opp Vijay Nagar Housing Society, Sahar Road, Andheri East, Mumbai 400069 .

Contact Person. Mr. Satwinder Singh – 8476002084 Mr. Pawan Kujur - 7069001310

Page 2 of 45

UNION BANK OF INDIA REGIONAL OFFICE: ANDHERI 6nd floor, 'A' wing, Kaledonia, HDIL compound, Opp. Vijay Nagar Housing Soc., Sahar Road, Andheri East, Mumbai- 400 059.

To, Dear Sir

TENDER NOTICE

Sub. :- Tender enquiry for HVAC/Furnishing Work AT ALTERNATE PREMISES OF VILE PARLE EAST BRANCH BY EMPANELLED VENDORS UNDER MUMBAI ZONE

We hereby invite you to submit your quotation for above mentioned work. The specifications, special conditions of contract and schedule of work to be carried out is enclosed herewith. You are requested to inspect the site and the nature of work prior to submitting the tenders. You are requested to submit your most competitive offer complete in all respect to reach THE REGIONAL HEAD, UNION BANK OF INDIA, REGIONAL OFFICE: ANDHERI, 6th floor, 'A' Wing, Kaledonia, HDIL Compound, Opp. Vijay nagar Housing Soc. Sahar road, Andheri east, Mumbai-59 by 15.00 hrs on 14/06/2022 in a sealed cover with the name & address of your firm on the left hand bottom corner.

Tender forms can be downloaded from 03/06/2022 to 14/06/2022 from Bank's web-site. The tender forms are downloaded from web site, the tenderer should submit a pay order/DD of Rs. 1000/- favouring UNION BANK OF INDIA, Mumbai in a separate sealed cover super scribed "Cost of Tender Forms" inside the tender cover, failing which their tender is liable for rejection.

The last date of submission of tenders, duly filled in, is up to 3.00 p.m. on 14/06/2022 to THE REGIONAL HEAD, UNION BANK OF INDIA, REGIONAL OFFICE: ANDHERI, 6th floor, 'A' Wing, Kaledonia, HDIL Compound, Opp. Vijay nagar Housing Soc. Sahar road, Andheri east, Mumbai-59. The rates shall be filled both in words and figures.

The envelope should be accompanied by an <u>Earnest money Deposit of which shall be 3% of</u> <u>guoted rate in Bill of Quantity (Exclusive GST) in shape of Demand Draft, in favor of UNION</u> <u>BANK OF INDIA</u>. A tender not accompanied by such Demand Draft as Earnest Money Deposit will not be considered. The Earnest Money Deposit of the unsuccessful tenderer will be returned without any interest within fifteen days from the date when the decision for award of work is taken by Bank.

This Earnest Money Deposit shall not bear any interest and shall be forfeited in the event of evasion, refusal or delay on the part of the tenderer to sign & execute the contract on acceptance of his tender. The EMD without any interest will be returned to the tenderer if his tender is not accepted.

The rates quoted will include and cover all cost, expenses, liabilities of very description and all risk of every kind to be taken in execution and handing over the work to the Bank. Page 3 of 45 The Tenderer must check all the pages of the Tender Form at the time of collecting the Tender from this office, If any pages is found missing, it shall be immediately brought to the notice of the Bank, It may be noted that the Tender will be disqualified if any page is found missing after opening the Tender.

Each page of the tender shall bear the signature of the bidder over his name stamp.

Bank reserves the right to accept or reject lowest or any other bid in full or in part and/ or accept any bid other than the lowest in full or in part without assigning any reason,, whatsoever. No correspondence will be accepted / entered in this connection and Bank's decision shall be final, conclusive and binding on all.

The following document forming a part of tender, are enclosed herewith.

- 1. Tender Notice
- 2. Introduction.
- 3. Special Instructions & conditions.
- 4. Letter of Offer.
- 5. Preamble to B.O.Q.
- 6. Mode of Measurement.
- 7. List of Approved Manufacturers for materials.
- 8. Bill of quantities.

This tender notice shall form part of the contract and non- submission of tender in the above manner will render your offer liable for rejection. Thanking you,

SD/-REGIONAL HEAD

TENDER DOCUMENT

HVAC / Furnishing works of Alternate premises of Vile Parle East Branch situated <u>at</u> Shop No 2 & Shop No 3,Trinity Square, Monghi Bhai East ,Vile Parle East , Mumbai 400057.

Date of Submission ------

Name of the Firm/Company

NOT TRANSFERABLE

Document Prepared by Empanelled Architect of Union Bank of India , Regional office, Andheri, Mumbai,

For Any Queries Applicants are advised to Post the mail or connect on the given Mobile Numbers.

M/s Deviya Arch Associates Association of Architects, Engineers and Consultant Email: <u>deviyaassociation1983@gmail.com.</u>

Mobile No of the Project Architects – (Ar. Snehal)– 7738697214 (Ar. Anjali)– 9096198014

Page 5 of 45

From – Name, Address, Contact Details, Email id of the Tenderer.

Dear Sir.

REF.: TENDER NOTICE: No

With reference to the Vender invited by you for Furnishing works (For HVAC WORKS only), I/we do. Hereby offer to execute the works under contract at the respective rates mentioned in the schedule of quantities. I/we have seen the site and read the articles of agreement, conditions of contract, specifications and special clauses.

I/we undertake to keep our offer valid for acceptance up to 45 days after the opening of the cover containing tender. I/We are enclosing herewith the Data and all details and documents. per Form of Particulars of the company as required.

I/we are sending herewith the Earnest Money of Rs. vide demand draft no._____dated____ /___/2022, respectively, which will not bear any interest. I/we do hereby agree that this amount of Earnest Money shall be forfeited by you in the event of my/our falling to execute the agreement when called upon to do so.

I/we hereby further agree that until a formal agreement is prepared and executed in accordance with the Articles of Agreement; this tender offer together with your letter of acceptance and other documents, if any, referred to therein shall constitute a binding contract between us.

I / We hereby certify that my/our firm has not been disqualified by any Office/Department/Undertaking of the State / Central Govt. of India, at any time for services of any description.

Yours faithfully,

For and on behalf of:

(Name of Applicant)

Name Name

Designation

Designation

Company Seal All Partners. Must sign in case of a partnership Co.).

Page 6 of 45

2.0

DATED<mark>:</mark>

FORM OF TENDER

To, The Regional Head UNION BANK OF INDIA – REGIONAL OFFICE, ANDHERI, MUMBAI.

Dear Sir,

Having examined the drawings, specifications, designs and bill of quantities relating to the works specified in the memorandum hereinafter set out and having examined the site of the works specified in the said memorandum and having acquired the requisite information relating thereto as affecting the tender, I/we hereby offer to execute the works specified in the said memorandum at the rates mentioned in the attached bill of quantities and in accordance in all respects with the specifications, designs, drawings and instructions in writing referred to in condition of tender, appendix to the form of tender, articles of agreement, conditions of contract, bill of quantities and with such materials as are provided for, by, and in all other respects in accordance with such conditions so far as they may be applicable.

Memorandum

Description of works	HVAC WORKS OF UNION BANK OF INDIA VILE PARLE EAST BRANCH, MUMBAI.
Tender Fee	Rs
Earnest money deposit	Rs
Time allowed for completion	7 Weeks or 45 days whichever is less, from the date of issuance of the LOA.

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 UNION BANK OF INDIA the amount mentioned in the said conditions.

I/we have deposited a sum of **Rs**..... as earnest money in the form of Demand Draft, from any schedule Bank other than Clientele Bank only in favor of **UNION BANK OF INDIA** Payable at **Mumbai**. Should I/we fail to execute the contract when called upon to do so, I/we do hereby agree that this sum shall be forfeited by **UNION BANK OF INDIA**.

All information and documents as required to be submitted with the tenders.

Page 7 of 45

1. Our bankers are

- 2. The names of partners of our firm are
- 3. Name of the partner(s) of the firm authorize to sign:
- 4. Name of the persons having power of attorney to sign the contract (certified true copy of the power of attorney should be attached.

All the relevant works are to be carried out by experienced and eligible personals. The works are mainly to be carried out by using highest level of accuracy. The working staff should wear the approved types of Dresses, helmets etc. for their safety when working on the site.

Yours faithfully

Signature of contractor

Signature and addresses of witnesses

1.

2.

3.0 PRELIMINARIES

The contractors will not be paid separately for the several items listed in this section.

The expenses for these items should be covered in the rates for the several items in the schedule.

The contractor is bound to carry out these items when called upon to do so by the architect and to the complete satisfaction of the architects.

- 3.1 Benches and setting out.
- 3.2 Access to site.
- 3.3 Treasure troves.
- 3.4 Access for inspection.
- 3.5 Hoarding.
- 3.6 Water and Electrical supply for construction & Furnishing works of New Premises works.
- 3.7 Temporary plumbing & Lighting works & Telephone Connection.
- 3.8 Corporation and/or other charges.
- 3.9 Gate keepers and watchman.
- 3.10 Storage sheds.
- 3.11 Temporary latrines, Washing places and Urinals.
- 3.12 Temporary offices, furniture therein etc.
- 3.13 Providing samples & getting the same tested.
- 3.14 Progress photographs.
- 3.15 Providing mechanical plants plumbing equipment Including operator and fuel etc.
- 3.16 Work progress schedule.
- 3.17 Weekly progress reports.
- 3.18 Making clean on completion.
- 3.19 Providing painted notice board with the name of owners, Architects Consultants, Contractors and the name of the project under
- Contract and mounting and fixing the Notice Board as display.
- 3.20 Mounting drawings for reference on site.
- 3.21 Keeping site clean.
- 3.22 Insurance.
- 3.23 Leave premises clean, ready for occupation including making good after all trades.
- 3.24 Cover up and protest efficiently works, from injury.
- 3.25 Weekly report of material used on the work.

TENDERER

EMPLOYER

4.0 SPECIAL CONDITIONS OF CONTRACT

The following clauses be considered as in extension and not in limitation of the obligation of the contractor.

4.1. Tender Stipulations:

4.1.1 Sealed tenders should be addressed to the owner: **To The Regional Head UNION BANK OF INDIA – Regional office ANDHERI.**

4.1.2 No tender will be received after 03.00 p.m on 13/06/2022. 14/06/2022 **4.1.3** Tenders will be opened at 03:30 PM on 14/06/2022

4.1.4 The tender shall remain valid for acceptance by the Owners for a period of Ninety days from the date of opening. This period may be extended by mutual agreement and the tender shall not cancel or withdraw the tender during this period.

4.1.5 Each and every page of the tender document is required to be signed by the person or persons submitting the tender In token of his/their having acquainted himself/themselves with General conditions of Contract, General Specifications, Special Conditions etc., and all other terms and stipulations of tender as laid down. Tender with any of the documents not signed will be rejected.

4.1.6 The tender SHALL NOT MAKE ANY ALTERATION or amendments in the scope of works, specifications and descriptions as Incorporated In these tender documents. Tenders, which propose such alteration/s addition/s and/or propose any sort of conditions, will be liable for rejection.

4.1.7 The tender must be filled In English and all entries must be made by hand and written In Ink. If any of the documents are missing or unsigned, the tender will be considered invalid.

4.1.8 Initials of the tenderer must attest all erasures and alterations made while fillings the tender, over writing of figures is not permitted, failure to comply with either of these conditions will render the tender void, No advice for any change in rate or conditions after the openings of the tender will be entertained.

4.1.9 The Owners do not bind themselves to accept the lowest or any tender and reserve to themselves the right to accept or to reject any or all the tenders1 either In whole or in part without assigning any reasons for doing so.

41.10 The tenderer must obtain for himself on his own responsibility and at his own' expenses all the Information which may be necessary for the purpose of submitting the tender and for entering in the contract, and must examine the work and acquaint himself with all local condition means of access to the work, nature of the work and all matters appertaining thereto. The description of all items of work shall be deemed to contain 811 details of carrying them out in the context of this tender and no extra claim will be acceptable and paid.

4.1.11 The rate quoted in the tender should include all charges for necessary scaffoldings, centering Materials, water meter charges, temporary plumbing cost of Cistern, hire for any tools and plants, shed for materials, making out the cleaning of the site and removing all left-over materials and stains of all kinds caused due to works to the entire satisfaction of the Architects and watering the concrete and

Page 10 of 45

brick work even If it Is not mentioned In the specifications. . The rates quoted by the tenderer in the schedule of quantities will be deemed to be for the finished work to be measured on site.

4.1.12 All the quoted. Rates shall be Inclusive of all the Taxes excluding the GST which shall be paid after submission of the Paid GST Challan by the Vendor. The Vendor will be responsible for the authenticity of the Paid GST or it will be recovered from his dues / Bank Accounts etc. including the fine, if the submission is found to be false or fake. Work Contract Tax, and any other duties levied by any Government or Public bodies, excluding GST, shall be borne by the Vendor. The rates shall be firm and shall not be subject to exchange variations, labour conditions or any other conditions whatsoever. The contractor shall not be entitled to claim escalation in rates.

The GST shall be quoted separately at the end of the Price-Bid/BOQ

4.1.13 every tenderer shall furnish along with his tender all documents as stated In the Form of Particulars.

4.1.14 the tenderer shall quote his most competitive rates against all the items of work of the schedule of probable quantities and rates. In case, the amount shown in the last column as stated by the tenderer differs from the product of the quantity and rates filled in; the amount that may work out as based on the rates will be taken as correct.

4.1.15 The tenderer before quoting his rates shall take due cognizance of the relevant costs of simultaneously working several agencies at the sites, the extent of Interference In his work under execution, the execution, phasing, programming and providing of facilities such as scaffolding working and Include the same In his rates and no extra amount on such shall be payable to the employer.

4.2.0 <u>Contractual</u>

4.2.1 Within SEVEN days of the receipt of intimation from the Architects / Owners of the acceptance of his/their tender, the successful tenderer shall be bound to Implement the contract by signing an agreement In accordance with the Tender as draft agreement and the schedule of conditions, but the written acceptance by the Owners/Architects of the tenders will constitute a binding agreement between employer and the person so tendering whether such formal contract Is/is not subsequently entered Into.

4.2.2 The contractor cannot assign the contract to any other agency. He cannot sublet any portion of the contract without written consent of the Architects.

4.2.3 The calculations made by the tenderer should be based upon probable quantities of the several types of work which are furnished for the tenderer's convenience. In the schedule of probable quantities, but it must be dearly understood that the contract Is not a lump sum contract and that neither the probable quantities nor the value of the Individual items, nor the agreement value of the entire tender will form part of the contract and the employer/architects does not In any way assure nor guarantee' that, the said probable quantities are correct or that the work would correspond thereto.

4.2.4 The contractors shall employ full time competent qualified and experienced person who will be approved by the Architects on site as Site-Engineer and he will be the authorized representative, In charge, to carry out work in accordance with the plans and directions of the Architects.

4.2.5 The successful tenderer is bound to carry out any items of work necessary for the completion of the job even though such Items are not included in this tender/contract if instructed by the architects. The Architects will Issue instructions In respect of such additional Items and their quantities in writing.

4.2.6 Following are those mentioned such as in these documents/ agreement and shall include their legal representatives, assigns or successors. They are treated throughout the contract document as If each were of the singular number and masculine gender.

(a) The Owner (Employer): UNION BANK OF INDIA, Head Office, Mumbai-400 051.

(b) The Contractor: The successful tenderer

(c) The Architect: Deviya Arch Associates.

4.2.7 Date of commencement /completion:

The Date of Commencement of work shall be the seventh day

From issue of Intimation of acceptance of the tender and or issue of work order or handing over site to the contractor to begin work whichever is later? Contractor shall thereupon and forthwith begin the works and shall regularly proceed with and complete the same on or before the 'Date of Completion'' which shall be 8 calendar months from the date of commencement. It should be clearly understood that time is essence of this contract.

4.2.8 The successful tenderer is bound to carry out any Items of work necessary for the completion of the job, if instructed by the architects, even If such Items are not Included In this tender/contract. The Architects will issue Instructions In writing, in Respect of such additional Items and their quantities.

4.2.9

(a) The Contractor shall fulfill the requirements of the EMPLOYEES STATE INSURANCE ACT, 1948, applicable to all states, towards their employees and keep all the required record regarding the same for inspection by the Authorities Concerned at any time. The Contractor shall Indemnify Owners I Architects, any claim or legal action arising out of the said Act due to the failure of noncompliance of the provisions of the said Act and the penalty of any other amount levied by the authorities, shall be recoverable from the payments due to the Contractor.

(b) The Contractor shall comply with the provisions of the APPRENTICES ACT, 1961, and the Rules & Order issued thereon from time to time. Failure to do so will be in a breach of the Contract and the Architects/Owners may in his discretion cancel the Contract. The Contractor shall also be liable for any pecuniary or other liabilities arising on account of any violation by him of the provisions of the Act.

4.2.10 Water proofing Guarantee

The Contractor shall furnish GUARANTEE on required stamp paper for all the water proofing works carried out him under this contract as per the draft provided with this tender, within 30 days of the receipt of the written acceptance of the tender, for a period of 10 years without any claim or conditions.

4.2.11 any or all measurements stated in the tender/drawings In F.P.S. Systems shall be deemed to be their equivalents In Metric system.

4.2.12 Contractor to Conform to Local Regulations:

The Contractor shall confirm to the previous of act any Act of the Legislature relating to the work and to the Regulation relating to the works, and to the Regulations and Bye-laws of any Authority, and of any water supply, electricity supply and other Companies and/or Authority with whose systems the structure is proposed to be connected.

Page 12 of 45

The Contractor shall bring to the attention of the Architect all notice required by the said Acts, Regulation and Bye laws to be given to any authority and pay to such Authority or to any public office all fees that may be properly char gable in respect of the works and lodge the receipt with the owners. The Contractor shall pay and indemnify the owner against liability in respect to any fees or charges (including any rated and taxes). legally demandable under any act of parliament/state legislature, instrument rule or order or any regulation or bylaw or any local authority in respect of the work. The Contractor shall indemnify the owners against all claims in respect of patent rights, and shall defend all actions arising from such claims, and shall himself pay all royalties, license fees, damages, cost and charges of all every sort that may be legally incurred in respect thereof.

4.2.13 Contractor Responsible for Bad Works:

The Contractor shall set out the works 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. If at any time any error/defect in this respect shall appear during the progress of the works or with in a period of one year from the completion of the works, the contractor shall at his own expense rectify such error / defect to the satisfaction of the Architect.

4.2.14 Contractor liable for Damage done:

The Contractor shall be responsible for all injury to persons, animals or things, and for all structural and decorative damage to property which may arise from the operation or negligence of himself or of any nominated Sub-Contractor's employees, whether such Injury or damage arise from carelessness, accident or any other cause whatever In any way connected with the carrying out of the Contract. This shall be held to include, inter alia, any damage to building, whether immediately adjacent of otherwise, and any damage to roads, streets, foot-paths, bridges or ways as well as all damage caused to the buildings and works. The Contractor shall indemnify the Owner and the architect and hold him harmless In respect of all and any expenses arising from any such injury or damage to persons and/or property as aforesaid and also in respect of any claim made in respect of Injury or damage under any Acts of Government or otherwise and also in respect of any Award of compensation or damages consequent upon such claim.

Contractor shall Indemnify the Owner and the architect against all claims which may be made against one or both by any member of the public or other Ground party in respect of anything which may arise in respect of the works or in consequence thereof and shall at his own expense arrange to effect and maintain until the virtual completion of the contract, an approved Policy of Insurance In the 'joint names' of Owners, architects and Contractor. The Contractor shall also similarly Indemnify the Owner against all claims which may be made upon the Owner whether under the workmen's compensation Act or any other statute and shall at his own expense effect and maintain, until the virtual completion of the Contract,, with an approved Office a Policy of Insurance In the joint names of the Owner and the Contractor against such risks and deposit such policy or policies with the Architect from time to time during the currency of the Contract.

The Contractor shall be responsible for anything, which may be excluded from the Insurance Policies above referred to, and also for all other damages to any property arising out of and incidental to the negligent or defective carrying out of this Contract. He shall also indemnify the Owner/Architect in respect of any costs, charges, or expenses arising out of claim or proceedings and also In respect of any award of or compensation of damage arising there from.

Owner with the concurrence of the Architect shall be at liberty and Is hereby empowered to deduct the amount of any damage, compensation, costs charges and expenses arising or accruing from or in respect of any such claims or damage from any or all sums due or to become due to the Contractor.

4.2.15 Child Labour:

The Contractor shall not employ child labour less than 14 years of age on the work. No workman of the contractor shall reside within the site except authorized guards.

4.2.16 Dismissal of incompetent or misbehaving employee:

The Contractor shall on the request of the Architect Immediately dismiss from the works any person employed thereon by him who may in the opinion of the Architect be incompetent or misconducts himself and such person shall not be again employed on the work without the permission of the Architect,

4.2.17 Bills:

All bills shall be submitted along with detailed measurement sheets duly checked by site-Architect/clerk of works. Bills shall be prepared In Microsoft Excel workbook with computations achieved by program formats and shall be submitted in soft copy on a CD. Along with the CD three hard copies of the bills so prepared shall be submitted with double spacing and duly signed by the contractor. Architects are not bound to accept Incomplete, ad hock or irrelevant bills and those not confirming to above norms. The Architect/ Consultant on receiving a Complete interim bill will confirm the works and endorse it within 7 working days for the needful action to the Owner/ Owners Engineers/ representatives so that the bill may be released by the Authorities within 7 working days from the date of receipt of the Endorsed bill by the Architect/ consultants. However, the time for endorsement of final bill from the Architect will be within 15 working days from the date of receipt of complete Bill, and thereafter the Authority has to sanction the amount within 15 days from the date of receipt of endorsed bill of the Architect/consultant.

4.2.18 Extra items:

The rates for varied / deviated or extra items to be worked out on the basis of the rates quoted in the tender for the similar items. Wherever it is not possible to base the rates for varied / deviated or extra items on the tender quoted rates then the rate analysis is to be submitted by the Contractors as under and get the same approved before execution of the work.

At Actual per unit:

Cost of materials:	Rs
Add for Labour charges:	R.s
Add for taxes, Transportation, If any,:	R.s
Add for Miscellaneous expenses, If any,	Rs
Sub Total:	Rs
Add for towards Contractor's overheads an	d profit
@ 20% of subtotal above.	Rs
Total :	Rs

Final rates arrived

Page 14 of 45

Rs-----/units

Contractors are requested to note that no extra items or deviated Item of work to' be executed without taking prior permission from owners (HEAD OFFICE) I Architect. If the extra Items or deviated Items of work is executed without taking prior permission, owners (UBI) / Architects shall not be held. Responsible for the payment of such works executed. Contractors will have to submit all the particulars including purchase bills I price list for the materials along with the rate analysis for verification of item rates.

4.2.19

Along with the final bill, the contractor shall submit to the architect drawings, sketches and all necessary Information for preparing as built" drawings to be given to the owner for record.

4.2.20

In the event of rain/storm or other weather conditions arising, the Contractor shall always have In readiness on the site required quantity of protective materiel/s such as tarpaulins for the protection of the works If required. Due to above-mentioned circumstances If any work is damaged, the contractor shall make good the same at his cost as directed by the Architects and for which no any extra claim will be entertained.

4.2.21 Use of premises for other work

The Owner with the concurrence of the Architect reserves the right to use the premises and any portions of the' site for the execution of any work not included in this Contract which he may desire have carried out- by other persons, and the Contractor Is to allow all reasonable facilities for the execution of such work but is not required to provide any plant or materials for the execution of such work except by special arrangement with the. Owner such work shall be carried of in such manner as not to impede the progress of the works included in the Contract end the Contractor Is not to be responsible for any damage or delay which may happen to or occasioned by such work.

4.2.22 Protection and cleaning:

The Contractor shall protect and preserve the work from all damage or accident providing any temporary roof, window arid door boxing or other construction as required by the Architect. Is protection shall be provided for all property adjacent to the site well as on the site.

4.2.23 The Contractor shall properly clean the work as it progresses and shall remove all rubbish and debris from the site from time to time as is necessary and as directed. On completion of the work the Contractor shall ensure that the premises and/or site are cleaned Surplus material debris, sheds etc. removed, areas under floors cleared of rubbish, gutters and drains cleared, doors and sashes eased, locks and fastenings oiled, keys clearly labeled and handed to the owners so that the whole is left fit for immediate occupation or use and to the satisfaction of the Architect.

4.2.24 Work Program:

The Contractor on starting the work shall furnish to the Architect a Program for carrying out the work stage by stage in stipulated time.

) A graph or chart on each Individual work shall be maintained / showing the progress of work week by week.

4.2.25 <u>Temporary Barriers/Screens:</u>

The contractors shall at his cost erect temporary barriers and provide approved type of screens between the area of work and that in use by the owners/occupants as and when directed by the architects. These

Page 15 of 45

barriers shall be such as to prevent dust and rabbit to cross over to the area in use as well as to provide protection to people. No separate payment shall be made for these barriers/ screens.

4.2.26 Approvals from authorities:

The contractor shall obtain all approvals wherever necessary, In the name of the owners and shall bear all expenses towards the. same Including all fees, deposits, premises charges, penalties, etc. The owner shall have 1st lien on the Approvals so obtained until/ satisfactory completion of all works by the contractor. In case the ") contractor fails to complete the works under contract or the agreement is terminated the owners shall have right to use all the benefits of the approvals to complete the project through other agency or themselves. In case of any structural changes done in the building/premises, the same will be done only after having all the receipts will be reimbursed by the Organization on submission of the receipts.

4.3.0 Work:

4.3.1 Plumbing and Sanitary Works

All plumbing and sanitary work shall be carried out under supervision of an approved and licensed plumber. The contractor has to arrange, if necessary, approvals from authorities. The' contractor has to Include In his rates all costs for getting the various approvals as necessary from the authorities concerned for work, materials etc. No separate payments shall be made for such work except for payment of refundable deposits. All materials and workmanship shall comply with the municipal regulations and the relevant I. S. Specifications. The materials used shall be of best available quality and make for the purpose specified. For Sanitary Plumbing Work and Storm Water Drain, unless otherwise stated C.P.W.D., details for these items to be followed as per the description /specification given in the Book published by Central Public Works Department.

4.3.2. Protections of trees and shrubs:

Tree and Shrubs designated by the Architect shall be protected from damage during the course of the work and the earth level shall not be changed within three feet of such tree. Where necessary such trees and shrubs shall be protected by means of temporary fencing.

4.3.3 Safety Code:

The Contractor shall strictly comply with the provision of Safety Code as follow:-

- a) The first aid appliances shall be maintained at readily accessible place including adequate supply of sterilized dressings and cotton wool.
- b) An injured person shall be taken to public hospital without loss of time, In case where, Injury necessitates hospitalization.
- c) Suitable and strong scaffolds should be provided for workmen for all works that cannot safety be done from ground
- d) No portable single ladder shall be over .5 meters in length. The width between the side rails shall not be less than 30 cm. (clear) and the distance between two adjacent 'rungs' shall not be more than 30 cm. When an unsecured ladder is used, an attendant shall be engaged for holding the ladder.
- e) The excavated material shall not be placed within 1.5 meters of the edge of the trench or half of the depth of trenches whichever is more. All trenches and excavations shall be provided with necessary fencing and lighting.

Page 16 of 45

- f) Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fail of person or materials by providing suitable fencing or railing whose minimum height shall be one meter.
- g) No floor, roof or other part of the structure shall be so overloaded with debris or materials as to render it unsafe.
- h) Workers employed on mixing and handling materials such as asphalt, cement mortar or concrete and lime mortar shall be provided with protective footwear and rubber hand-gloves.
- i) Workers engaged in welding works shall be provided with welder's protective eye-shields end gloves.
- j) (1) No paint containing lead or lead products shall be used except in the form of paste or readymade paint. (2) Workers should be supplied suitable facemasks for use when the paint is applied in form of spray or surface having lead paint dry rubbed and scrapped.
- k) All equipment's, tools, Hoisting machines and tackle including their attachments, Anchorage, ropes and supports shall be in maintained in perfect condition and Inspected by the contractors engineer every week,

4.3.4 Shop Drawings:

The contractor shall depute adequate number of experienced staff with the necessary equipment required for preparing 'SHOP DRAWING' if and when required, giving working details to suitable scales such as working details shall be prepared by the contractors from time during execution of the work as may be required by the Clerk of work /Architects without any extra cost to the employer and shall be. Approved by the Architects/Clerk-of-work before undertaking any particular item of work.

4.3.5 Protection <u>Screen</u>

The, contractors shall at his cost erect all necessary protection scaffolds, nets, screen as approved by the architects particularly on the exterior face of the building to adequately protect the lower floor and people/property on the ground during the progress of work.

4.3.6 Prior to commencing work or any part of work, the contractor shall confirm having at sitè the. Specified materials required for each Item of work having made firm arrangements for timely supplied of such materials. If any specified item Is not available, the Architects must be advised immediately.

4.3.7 The contractor carrying out the above work shall jointly plan and work out a program for the execution of the work with all other contractors if any, In consultation with Architects. No extra claim for such co-ordination shall be entertained. If any part of the contractors work depends upon the proper execution of the work of another contractor, the contractor shall Inspect and promptly report to the Architects / Employer and/or Clerk-of-work any defects In such work that render It unsuitable for such proper execution. The contractor's failure to Inspect and report shall constitute an acceptance of the other contractors work as fit and proper for the reception of his work.

4.4.0 Financial Conditions: (Explanation of Appendix)

4.4.1 <u>Earnest Money</u>: Intending tenderer shall pay as earnest money 3% of Rate Quoted exclusive GST which amount should be drawn by a Pay order/Demand **Draft In favor of UNION BANK OF INDIA.**" payable at Mumbai. A tender, which is not accompanied by earnest money, will not be considered. After the finalization of contract, the earnest money will be returned to the tenderers if his tender is not accepted and without any Interest. The earnest money deposit of the successful tenderer. Will be adjusted towards the security deposit payable per clause 4.2.2 below. The Earnest

Page 17 of 45

money will be forfeited if the contractor fails to start the work and /or fails to enter into agreement and /or fails to pay security deposit.

4.4.2 Security Deposit:

The Successful tenderer shall within a week of receipt of the Acceptance of the tender by the owner /Architects, deposit with UBI, Andheri regional office, the owners, a sum equal to 3% of the accepted tender value as security deposit or as mentioned in the relevant Tender, in form of Draft or Fixed deposits. in addition to the earnest money deposit EMD of Rs ------- for the proper execution and the due fulfillment the initial security deposit .The Security deposit may be given in the form of bank guarantee of any nationalized bank .No interest shall be paid to the contractors for this deposit Retention from the running bills will also form part of the total security deposit as detailed below.

4.4.3 Retention:

In addition to the money paid as initial security deposit, an additional security for the **fulfillment of the contractor 8% of the value of the work done** will be deducted from each payment made against running account bills to the contractor until limit of retention per memorandum (appendix).

4.4.4 Refund of Security Deposit and Retention:

On issue by the Architects of the certificate of the virtual completion of the work, The contractor would be paid every amount he is liable to be paid on account of his completion of works, while the client will keep 3% of the concluded works amount as he security money for a period of 1 year, which the client will release on the certification of the letter issued by the concerned Project Architect/ Consultant/engineer in charge of the client. Henceforth it is clear that the security deposit including retention and balance will be retained till the expiry of the defect liability, period. This balance amount will be released by the owners on issue of final completion certificate by the architects towards compliance of all conditions of contract by. the contractor including attending all defects noted during the defects liability period. The earnest money deposit, the security deposit and the retention money of the successful tenderer will be forfeited If he fails to comply with any of the conditions of the contract

4.4.5 WATER FOR PROJECT USAGE:

The Owners i.e. (UBI) shall provide from the available civic supply on site all WATER FOR CONSTRUCTION and labour use FREE OF COST subject to availability and pay for the municipal charges for water and sewerage if any. If water is required to be brought from outside the contractor shall make all arrangement at his cost either by obtaining separate municipal connection, or by buying water through tankers. In any case the contactor shall make at his cost all arrangements for conveying, storing and pumping water wherever required. Owners reserve the right to restrict or cancel the supply depending on availability of spare water and the contractor is bound to carry out the work by making his own arrangement for supply of good quality water for construction as well as for labour use and shall pay all charges in connection with it. It must be clearly understood that employer's willingness to supply water does not dissolve the liability of the contractor In any way for providing all required water and the employer shall not be liable any charges in connection therewith.

4.4.6 ELECTRIC SUPPLY:

Page 18 of 45

The Owners i.e. the Competent Authority shall provide from the available civic supply on site all ELECTRIC SUPPLY for work and Labour use FREE OF COST. The contractor shall make all arrangement at his cost including cable works, protection, light fittings etc. from the supply source to the various locations as required. Owners reserve the right to restrict or cancel the supply depending on availability and the contractor Is bound to carry out the work by making his own arrangement for supply of electricity for construction as well as for labour use and shall pay all charges In connection with it. It must be clearly understood that employer's willingness to supply electricity does not dissolve the liability of the contractor. in any way for providing all required electricity and the employer shall not be liable to pay any charges In connection therewith.

4.4.7 Penalty For Delayed In Work (Liquidated Damages):

In case the Contractor fails to complete the work under contract in the specified period he shall pay or allow to the Owner the sum as Liquidated Damages @ the rate of Rs 1000/- per day for the period during which the said works shall so remain incomplete, until limit of amount per Memorandum (appendix.). The Owner may, on the delay report submitted by the Project Consultant/ Architect, may deduct such damages from 'any moneys due to the Contractor. However the maximum amount of penalty for delay will not be more than 10% of the project value. The Architect/Consultant will have the prerogative to decide the Penalty by levying the delay clause as he deems so, pertaining to the factual status of delay.

4.4.8 Defects Liability Period:

Any defect, shrinkage, settlement, or other faults which may appear within the "Defects Liability Period" stated In the Appendix/Memorandum of this tender or, if none stated, then within 12 months after the virtual completion of the works, arising in the opinion of the Architect from materials or workmanship not In accordance with the contract shall upon the directions in writing of the Architect, and within such reasonable time as shall be specified therein, be amended and made good by the Contractor, at his own cost and in case of default the Owner may employ and pay other persons to amend and make good such defects, shrinkage, settlements or other faults, and all damages, loss and expenses consequent thereon or incidental thereto shall be made good and borne by the Contractor and such damage, loss and expenses, shall be recoverable from him by the Owner or may be deducted by the Owner upon the Architect's Certificate In writing from any money due or that may become due to the contractor or the Employer may In lieu of such amending and making good by the relevant project Consultant/ Architect, equivalent to the cost of amending such work. The final Defect Liability Amount will be released by the Owner on certification letter issued by the relevant Architect / Firm/ Company under whose regime the works were completed.

4.4.9 Virtual Completion Certificate

The works shall not be considered as completed until the Architect has certified In writing that they have been virtually completed and the Defects Liability Period shall commence from the date of such Certificate.

4.4.10 Insurance Policies:

The Contractor after receiving the intimation, of acceptance of his tender by the Owners, shall take out following INSURANCE POLICIES from an office approved by the architect in the joint names of the Owner and Contractor (the name of former being placed first In the Policy). The policies shall be kept valid until the Virtual Completion of the Contract.. The contractor shall deposit the policy and receipts for the premiums with the Architect before commenting the work.

- 1) All Risks Insurance Policy to cover Completed work, material and equipment brought at site from Fire, Storm/ Tempest /Hurricane/Typhoon / Cyclone Collapse, Theft /Burglary.
- 2) Ground Party Insurance Policy:
- For Accidental loss or damage caused to the property of other persons.
- For fatal or non-fatal Injury to any person other than Insurer's own employees or workmen of employees of the employer of the Works or Premises or other Firms connected with any other construction work thereon, or member of the Insurer's family or of any of the aforesaid; directly consequent upon or the solely due to the construction of any property described In the Schedule.

Limit of Indemnity In respect of any one of the accidents or series of accidents arising out of one event, the amount is Rs.5,00,000/-

3) Workmen's Compensation Insurance per Local regulations.

4.5.0 Material:

4.5.1

The successful tenderer should make his own arrangements to obtain all the material required for the work. The contractor shall have to pay all related Taxes, GST, etc. or any other duty levied by the Govt. or Public bodies. All the materials used in the execution of the works will only be used after the written consent of the Architect. Further it will all be the responsibility of the vendor to use the original brand of the specified materials. No excuse of any wrong or duplicate items will be entertained. The mockup items will have to be approved by the Architect/consultant only.

4.5.2

Prior to commencing work or any part of work, the contractor shall confirm having at site the specified materials required for each item of work having made firm arrangements for timely supply of such materials. If any specified Item is not available, the Architects must be advised immediately. The Architect in such a case is empowered to change the make of items and replace it with another equivalent make. Any major change or deviation in Amount of the Bill on the usage of the prescribed material will be worked out by the Architect/ consultant who on his advice after taking the consent of the Authorities may permit the changes of the item. However its his prerogative to allow the minor changes.

4.5.3 Materials usage at Site/Their approvals

Contractors shall procure samples of all items listed in schedule of quantities. The samples shall be submitted to Architects for approval. The work for the bulk quantities shall be commenced only after approval of the samples by the Architects / Consultants / Bank. However in case if the material mentioned in the approved list is unavailable or is available at very increased rates than in that case the Contractor can request the Architect for issuing or changing the make as per the readily available material near the Site/region/proximity area. But usage of the material without having the written consent of the Architect will lead to flaw in using the material for which the items will have to be dismantled and replaced by the Material list provided or the Penalty will be levied by the Architect for deviating from the tender.

4.5.4 Basic Rates:

While quoting the tender, the tenderer should base his rates on the basic rates of materials given in the relevant Bill of quantities. The basic rates given below are Inclusive of all central, state. And local

Page 20 of 45

taxes and levies like GST, Octroi, etc., as applicable, and including loading, unloading, and transportation and as received on site. The price variation adjustment will be calculated on the basis of the difference between these basic rates and the actual cost, but excluding contractor's overheads, profit etc. The Contractor Is required to purchase the mentioned materials at the most competitive prevailing market price after obtaining minimum three quotations and getting approval for the rates from the Owners/ Architect/ consultant firm/company, in case of scarcity or unavailability of the mentioned make of material, but only after taking the written consent from the Architect/ Consultant firm/ Company.

Any, substantial Increase or decrease over and above 5% In the cost of the above mentioned materials and those specified In bill of quantities as finally selected and approved shall be adjusted to the contractors bill, it may be noted that claim for extra will not be entertained in case of small or marginal increase or decrease in rates, Architects decision In this matter shall be final and binding without appeal.

4.5.5 Storage of Materials:

Contactor shall at his cost make all necessary arrangement for proper storage of all materials at site and store the same so that materials remain in best condition for use In the work. The contractor shall obtain all. Necessary stacking equipment, protective covers etc. The contractor shall maintain a log of all materials brought to site and removed from site. The contractor shall not remove any material brought to site without permission or instruction from the Architects/ owners.

5.0 GUARANTEE TO BE EXECUTED BY CONTRACTORS FOR REMOVAL OF DEFECTS AFTER COMPLETION IN RESPECT OF WATERPROOFING WORKS.

 This agreement made this ______ day of ______ on Two thousand Nineteen between of one part & ______ of another part.

(Hereinafter called the Guarantor of the one part) and UNION BANK OF INDIA (UBI) (Hereinafter called UBI of the other part).

WHEREAS THE AGREEMENT is supplementary to a contract (hereinafter called for contract) dated and made between the GUARANTOR of the one part and UBI of the other part, where by the Contractor interiliac, Undertook to render the structures (pavements) on the said contract recited completely water and leak proof.

AND WHEREAS THE GUARANTOR agreed to give a guarantee to effect that the said structures (pavements) will remain water and leak proof for Ten years from the date of giving of water proof treatment.

NOW THE GUARANTOR hereby guarantees that water proofing treatment given by him will render the structure completely leak proof and the minimum life of such water proofing treatment shall be 10 years to be reckoned from the date after the maintenance period prescribed in the contract.

Provided that the guarantor will not be responsible for leakage caused earthquake or structural defects or misuse or alteration and for such purpose:

A] Misuse of structure (pavement) shall mean any operation which will damage water proofing treatment, live chopping of fire wood and thing of the same nature which might cause damage to the same.

B] Alteration shall mean construction of any additional structure or part thereof or whereby water proofing treatment is removed in parts.

C] The decision of the Engineer-in-charge / Authorized Official of UBI with regard to cause of leakage shall be final.

During this period of guarantee the guarantor shall make good all defects and in case of any defect being found render the structure(pavement) water proof to the satisfaction of the Engineer-in-charge / **Authorized Official of UBI** at his cost and shall commence the work for such rectification within seven days from the date of issue of the notice from the Engineer-in-charge/ **Authorized Official of UBI** calling upon him to rectify the defects falling which the work shall be got done by the Department by some other contractor at the Guarantor's cost and risk. The decision of the Engineer-in-Charge / **Authorized Official of UBI** as to the cost, payable by the guarantor shall be final and binding.

That if the guarantor fails to execute the water proofing or commits breach there under then the guarantor will indemnify the principal and his successors against all loss, damage cost expenses or

Page 22 of 45

otherwise which may be incurred by him by reason of any default on the part of GUARANTOR in performance and observance of this supplementary agreement as to the amount of loss and/or damage and/or cost incurred by UBI the decision of the Engineer-in-charge / Authorized Official of UBI will be final and binding on the parties.

IN WITNESS WHEREOF these presents have been executed by the obligator ______ And by ______ and for and on **behalf of UBI** on the same day, month and year first above written.

SIGNED, sealed and Delivered by (OBLIGATOR) in the presence of

- 1.
- 2.

Authorized Signatory of UBI.

SIGNED FOR AND ON BEHALF OF UBI BY

In the presence of:-

1.

2.

MEMORANDUM (Appendix)

6.1 Date of commencement of Work	Within 7 days after issue of work order/ Tender acceptance or handing over site whichever is earlier.
6.2 Date of completion of Work	45 Days from the date of Commencement/ 50 Days from the date of issue of LOA.
6.3 Defect Liability period	12 months after completion of Work per Virtual Completion Certificate.
6.4 Agreed liquidated damages for Delay In completion of work.	Rs.1000/- per day subject to max. 10% of the Contract Value Amount.
6.5 Earnest Money Deposit	3% of the Rate Quoted (Exclusive GST)
6.6 Security Deposit Amount	Nil
6.7 Retention Percentage and Limit	8 % of the gross certified value of each interim bill.
6.8 Refund of Retention Amount & Security Deposit defects liability period.	50% after virtual completion certificate & balance After completion of defect liability period
6.9 Minimum Value of work for Interim Bills.	Rs. 8, 00.000/- (Rupees EIGHT Lakhs)
6.10 Period for honoring Interim Certificate	within 7 days of Issue of Certificate by Architect
6.11 . Period for honoring Virtual Complet	ion within 30 days of Issue of Certificate by Architect Certificate and refund of Security Deposit.
6.12 . Validity period for Tenders	90 days from the date of opening of the priced Bid of the tender.

Note – If the vendor quotes an amount which is (+/-) above or below than 15% of the approved estimate of works than he will have to submit a Performance Bank guarantee for an Amount equivalent to 10 % of the Project estimate along with the reasonable reason for the quoted rates. The Vendors quoting the lower rates (Below 15% of the estimated cost of the Project) will have to justify the rates quoted by them within the time allocated to them, failing which the Tender may be allocated to the other lower bidder provided he agrees to work on the same rates as those quoted by lowest bidder. He too will be asked for rates justification if he has quoted low than 15% of the project estimate.

This Amount will be released after the release of Virtual Completion certificate by the Architect/ Consultant only. However, if the Vendor fails to adhere with the Terms & conditions of the Tender or compromises with the quality of the raw material or the finished goods than the Project Architect/ Firm/ Consultant Company may submit the report based on which the Bank may on its discretion forfeit or absolve the amount on the basis of noncompliance of the tender conditions to which the Vendor firm will have no disagreement.

Measurements – The measurements will be done as per the prevailing Indian Code of measurements of the related works. The measurements sheets will be submitted hy the Vendor with the supportive documents for the purpose of realization of the Bills. The copies will be submitted in the Hard copy form along with a soft copy in pen drive. The standard practice for the measurements of works as followed under BIS Code will be followed with the subjected works. The vendor will have to submit the Bill as desired in the tabulated tendered Format. Of the Bill of Quantities.

7.0

Articles of AGREEMENT made at Mumbai this day of 2022, **BETWEEN UNION BANK OF INDIA, Mumbai —400023**, hereinafter referred to as the EMPLOYER Expression shall include his executors, administrators and assigns) Are part and ______

HEREBY AGREED AS FOLLOWS:

------Consideration hereinafter mentioned, subject to the Conditions of ------- Bill & Quantities, Preliminaries, Special Conditions and ------- And the Memorandum the Contractor shall undertake, carry ------ and Complete the work shown upon the drawings and described by or------------ to In the Bill of Quantities, Preliminaries and Instructed by the ------- (Whether mentioned anywhere herein or otherwise) for due ------ of the work so a to conform to the provisions of the said ------ Specifications, Special and General Conditions of contract --

The said Drawings, Instructions, Specifications, Preliminaries, Tender ------ Memorandum, General and Special Conditions of Contract and ------ f (probable) Quantities (hereinafter collectively referred to as the ------ OF CONTRACTS) shall be read and construed as forming part of agreement end parties hereto shall respectively abide by and submit selves to them and perform the agreements on their parts ------.

The contract Is not a fixed lumps contract, but essentially an Item rate ------to carry out all the, work In respect of all the Items required for ------of the work and other buildings and their, services, to be actual measured quantities and rates ,or as provided In the,-----

The employer /Architect reserve the right to alter the drawings and the quantum of any or various items of work, without prejudice' to the said terms of contract.

-----shall be considered as the essence of this agreement and the contractor hereby agree to commence and complete the work as provided the said terms of contact.

All the disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in the city of Bombay.

THESE ARTICLES OF AGREEMENT AND THE TERMS OF CONTRACT HAVE ------READ TO US AND FULLY UNDERSTOOD BY US, WITNESS the hands of the parties. By the said Employer.

Presence of

WITN	JESS
)

By the said Contractor

Presence of

------WITNESS

Page 26 of 45

8. <u>SETTLEMENT OF DISPUTES</u>:-

Excepted Matters

If any dispute or difference pertaining to the undernoted matters arises, the decision in writing of the supervising Architect/their representative / Bank's General Manager shall be, conclusive and binding on the Contractor/ s.

- a) Written Instructions.
- b) Permissions from Local Authorities.
- c) Proof for quality of materials and the works.
- d) Assigning or subletting of the contracted works.
- e) The causes of delays and extension of time.
- f) Rectification of defects during the progress and Defects Liability Period.
- g) Contractors due diligence care and supervision at the works.
- h) Measurements of works.
- i) Reports on quality and progress of works.
- j) Contractor's abandoning of the contract, partially / fully.
- k) Notice of termination / determination of the contract by the Employer.

9.0 ARBITRATION:-

All disputes or difference of any kind whatsoever (except for excepted maters vide Clause No. 8 earlier) which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of inabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or branch of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice of 60 days by either party to the contract to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a **Sole Arbitrator** to be appointed as per the provisions of law.

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 as per the Law.

The work under the Contract shall, however, has to continue during the Arbitration proceeding and no payment otherwise due to the Contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issued to both the parties fixing the date of the first hearing.

The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and publishing the award.

The Arbitrator shall give a separate award in respect of each dispute or difference referred to his. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the Arbitrator in his Sole discretion.

The fees, if any, of the Arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award including the fees, if any, of the Arbitrator who may direct to and by whom and in what manner, such costs or any part thereof shall be paid and may fix or settle and amount of costs to be so paid.

The award of the Arbitrator shall be a reasoned Award.

Page 27 of 45

Subject to aforesaid, the provisions of the Arbitration and Conciliation Act, 1996 or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force, shall apply to the Arbitration proceeding under this clause.

The Employer and the Contractor hereby also agree that arbitration under clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

COMPLETION PERIOD

Time is the essence of the contract and the contractor is required to complete the entire work to the satisfaction of the Bank in 60 DAYS from the date of commencement of work.

PROGRAM WORK AND PROGRESS REPORTS

The successful contractor will have to submit a detailed bar-Chart indicating the schedule of various activities from the date of commencement till completion and get the same approved by Architect. Contractor shall strictly adhere to the same. This program shall form part of contract and shall be binding on the contractor. However, the BANK reserves the right to alter the Program, if necessary, from time to time, No claim whatsoever of any nature by the Contractor on this account shall be entertained by BANK. They shall also have to write their requirements about co-ordination from other agencies working at site.

WATER & ELECTRICITY REQUIREMENT

- 1. The Contractor will be permitted to draw and use water from BANK's U/W Tank and O/W Tank. He will not claim any compensation for late, intermittent and no supply of water. At the time of shortfall, the Contractor will arrange water without any extra cost. The Contractor has to arrange 'Sintex' tanks of adequate capacity to store water and pumps and pipes for distribution of water from tanks to work place free of charge. The site for storage and distribution of water will be decided by the owner / Bank.
- 2. The Contractor will be provided Electricity at one point by the BANK free of cost, only most convenient to the Bank. He will also ensure that all safety measures are adhered to at his costs. The Contractor will not make any wastage of this facility nor will claim any compensation for late or intermittent supply for electricity. Cost of power shall be born by the BANK. Any accidents, mishaps, etc. due to fault and negligence of Contractor's workmen, the Contractor will be responsible and indemnifies and keep indemnified the members of the managing and repair committee and the BANK.

DELAY IN COMPLETION OF WORK

- 1. Liquidated damages per week will be 1% of the contract value inclusive of non-completion of work in time including Sundays and holidays per week, subject to maximum of 10% of contract value. The Bank may without prejudice to any other mode of recovery deduct the amount of such damages from any moneys in his hands due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor of his obligations and liabilities of this contract.
- 2. If in the opinion of the Bank / Architect, the works gets delayed due to causes which the Bank may consider being beyond the control of the contractor, the Bank at the completion of the time allowed for the contract shall make fair and reasonable extension of time for completion in respect there of. For extension of time for completion, the contractor has to apply in writing with detail reasons.

PAYMENT SCHEDULE

- 1. Total value of work is Rs. including transportation, loading, unloading, Octoi charges etc. and nothing extra will be paid on any account. In the event of variation in the Quantity / Area, the payment shall be made on the basis of the actual Quantity / Area at the quoted Rate.
- 2. Bill in Triplicate duly Certified by Architect shall be submitted to Bank after satisfactory completion of the work. Payments to the contractor shall be made within 15 days of submission of each "on account" bill. Bill

Page 28 of 45

submitted by the contractor must contain item wise quantity of work done in a manner that verification of work done can be done. The quantities for which the bills are submitted shall be subject to physical verification before payment.

- 3. In the event of variation in the Quantity / Area, the payment shall be made on the basis of the actual Quantity / Area at the quoted Rate.
- 4. No interest will be given for late payments.
- 5. All payments to the Contractor shall be made subject to deduction of taxes at source at the rate applicable.
- 6. Final payment, except Security Deposit (which is to be released only after the defect liability period including observing the performance of water proofing during the rainy season) shall be made within 30 days from the submission of the final bill after verification of the completion of the work. No further claim except the security Deposit after the submission of the FINAL BILL shall be accepted.
- 7. For final payment, the Contractor will submit details of all items, payments received for works and materials, any claim and net balance due which Architect/ Bank will check, make any adjustments if any, will receive 'No Claim' from the Contractor and pay and settle the same if any.
- 8. The Contractor will submit original certificate for payment of Works Contract Tax in respect of the Owner / Bank or else the same will be deducted from his bills.
- 9. The decision of the Architect and repair committee for payment or for any extra work to be made or any deduction to be made from the whole cost of the work or any other matter whatsoever relating to the contract shall be final and binding to all parties.
- 10. The Contractor shall be liable to pay Rs. 500/- per day as penalty in the event of default for any reason whatsoever in the removal of debris and / or materials and / or tools and / or plants and / or equipment within 7 days from the written instructions given to contractor to do so till such removal takes place. The Bank may without prejudice to any other mode of recovery deduct the amount of such damages from any moneys in his hands due or which may become due to the Contractor. The payment or deduction of such damages shall not relieve the Contractor of his obligations and liabilities of this contract.

SUBLETTING

The selected contractor shall not sub-contract the work to any other individual, Agency or firm.

DEFECTS IN WORK

- 1. Any defects / deficiency pointed out by the BANK's authorized person(s) shall be removed / rectified to his / their satisfaction, otherwise payment for such items(s) shall not be passed till the defect/ discrepancy is removed / rectified by the contractor.
- 2. The Architect shall have the power to withhold any certificate of work and/ or part thereof not being carried out to his satisfaction and he can make the necessary corrections in previous certificate in any subsequent certificates.
- 3. In case the Contractors are disobeying Architect/ Bank, they may get bad work replaced in the manner the Architect think fit at the cost and consequences of the Contractor.
- 4. The Architect/ Bank shall have the right to alter, omit and abandon any part of work without invalidating the contract. If any work is over and above that included into the Contract and is required to be executed at site, the Architect/ Bank has power either to delegate this work to Contractor as an extra item or to any outside Contractor, as the case may be.

Page 29 of 45

SECURITY OF WORKS / MATERIALS / STORES ETC OF THE CONTRACTOR AND BANK'S PROPERTY

- 1. The Contractor shall be responsible to make safety arrangements at his own cost for his materials / stores, storages, etc. All such stores shall be cleared away and the ground left in good and proper order on completion of this contract unless otherwise expressly mentioned therein.
- 2. The Bank will provide the contractor open space for storing the cement. The area has to be maintained by the Contractor during the period of work. He can construct a temporary shed and he alone will be responsible for his materials.
- 3. All stores and materials brought to the site shall become and remain the property of the Bank and shall not remove from the site without prior written approval of the Bank. When the work is finally completed or the contract is determined for reason other than default of the Contractor, he shall forthwith remove the same from site.
- 4. All tools, plant and equipment brought to site by the Contractor shall not be removed from the site without prior written approval of the Bank. When the work is finally completed or the Contract is determined for reason other than default of the Contractor, the Contractor with prior written permission of the Bank shall forthwith remove the same from site all tools, plant and equipment.
- 5. For any damage / injury to the BANK's property or to any member of the BANK or to the member's property on account of any unsafe practices adopted or by any un-prudential action by the Contractor or by his men, the contractor shall be responsible. BANK reserves the right for recovering proper remedy / compensation for the same from the contractor.
- 6. Contractor should indemnify and keep indemnified the Bank against any legalities arising out of labour rules, local authorities rules etc. during the execution of work and any losses and claims for injuries or damage to any person or any property and should take third party insurance in the joint name of Bank and contractor.
- 7. The Contractor shall ensure protection to the owners, flat owners, occupiers of the Bank, other properties near site and to the public in general. The approach is kept free at any time.
- 8. The contractor must take all measures and precautions to prevent death / injury to his own labors or any other person and shall take THIRD PARTY (Public Liability) Insurance Policy in the joint name of BANK and contractor at his own expenses. This will be comprehensive and all risks covered to safeguard all men, materials and property during and on account of the execution of work under this contract and will submit certified copy to employee.
 - a. All Risk Policy with accidental cover to neighboring property due to work of contractor's workmen.
 - b. Workmen's Compensation Policy.
 - c. Automobile Third Party Insurance with unskilled third party liability of his vehicles or his suppliers or debris removal vehicles, etc. damaging any cars, etc. while bringing, removing materials, etc.
- 9. The contractor shall, if required by Architect / bank, arrange to test materials and / or portion of the work at his own cost in order to prove their soundness and efficiency. If after any such test, the material or portion of work is found, in the opinion of the Architect and Bank to be defective or is found, in the opinion of the Architect and Bank to be defective or unsound, the contractor shall pull down and re-erect the same at his own cost. Samples of materials and workmanship shall be submitted by the contractor for the approval of the Architect / bank before procurement and execution.
- 10. Contractor shall submit written performance guarantee from the manufactures of all bought out items.
- 11. The Contractor shall submit original copies of invoices, order forms for any materials purchased for project work, to the Bank / Architect if called for.

Page 30 of 45

CONTRACTOR'S SUPERVISION

- 1. The Contractor shall give and provide all necessary superintendence during the execution of work and as long after as Architect / Bank may consider necessary for proper fulfilling of Contractor's obligations under the contract. The Contractor shall himself supervise the execution of contract and shall appoint a full time competent agent (site engineer / supervisor) approved by the Architect / Bank to act on his behalf and to be present all throughout at site. The Contractor shall further employ engineers and assistants to the above to supervise the work in sufficient numbers to the satisfaction of Architect / Bank. These engineers must be completely authorized by the Contractor to represent him and to receive and execute order and instructions by the Architect / Bank as if Contractor himself is present. The Contractor shall visit the site daily and shall have minimum once a week, or more as the case many be, joint meeting with the Architect & Bank on a day fixed jointly by the Architect and the Bank.
- 2. The Contractor shall provide and employ on site in connection with the execution and maintenance of the works:
 - a. Only such assistance's as are skilled and experienced in their respective fields and qualified and such agents, foreman and leading hands as are competent to give proper supervision to the work.
 - b. Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of the work.
 - c. The contractor shall employ a whole time qualified and competent supervisor for the work, whose name shall be notified and who shall interface with the BANK's representative(s) for the ongoing contract work.
- 3. The Architect / Bank shall be at liberty to object any Contractor man / men, employed by him, for misconduct or is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the Architect / Bank to be undesirable to work within the premises of BANK. Any person so removed from the works shall be replaced immediately by a competent substitute.

INSURANCE

The contractor shall obtain adequate insurance cover at his own cost for work against any loss or damages as well as workman compensation and third party risk, until the date of virtual completion of the work. The insurance cover shall be in joint names of the owner and the contractor, is to be deposited with the owner within 21 (twenty one) days from the date of issue of work order.

OCCUPATION OF PARTIALLY COMPLETED PORTION BY THE BANK

The Bank shall be entitled to and will be at liberty to occupy even the partially completed portion of the work by themselves or through their agents and servants if they so desire. Necessary extension of time for completing the work shall have no claim for any compensation whatsoever due to the delay, if any involved in completing the work on account of partial occupation.

MOCK UP

The Contractor shall prepare a mock-up of items, if required, strictly in accordance with the specification, free of cost, for approval of Architect and Bank. The work on these items shall proceed further only after the approval of the mock-up.

UNSCHEDULED ITEMS OF WORK

- 1. Work should be carried out strictly as per the standard specifications given in Tender document OR AS APPROVED BY THE Architect and his directions of the Workmanship / Work of substandard nature will not be accepted and paid for.
- 2. Any work carried out as per specifications and found defective in opinion of architect / consulting engineer shall be demolished are replaced by new work by contractor to the satisfaction of architect / consulting engineer.

Page 31 of 45

- 3. If change in any item or additional work is to be carried out while executing the job by the contractor will be executed with prior consent from the Bank and as per instruction from Architect which may not have been specified in tender but necessary for completion of job.
- 4. In case of any dispute the decision of Bank will be final and binding on the contractor.
- 5. The Contractor shall comply with all acts and regulations for the successful completion of the contract works and shall give due notice and pay all fees / taxes etc. as per statutory requirements.
- 6. No additional work is to be carried out by the contractor unless instructed by the Bank through Architect.
- 7. All materials to be delivered at site. If the material used for the work is not in conformity with the specifications, the same shall be replaced at your cost. All the material required for the above work shall be arranged by the contractor at his own cost.
- 8. Selection of material to be done in consultation with the Bank's representative / Contractor. The Contractor shall, if required by Architect/Bank, arrange to test materials and / or portion of the work at his own cost in order to prove their soundness and efficiency. If after any such test, the material or portion of work found, in the opinion of the Architect and Bank to be defective or is found, in the opinion of the Architect and Bank to be defective or unsound, the Contractor shall pull down and re-erect the same at his own cost. Samples of materials and workmanship shall be submitted by the contractor for the Approval of the Architect / Bank before procurement and execution.
- 9. Rules for varied/deviated or extra items to be worked out on the rates quoted in the Tender for the similar items. Wherever it is not possible to base the rates for varied/ deviated or extra items on Tender quoted rates then the rate analysis is to be submitted by the contractor will include the actual cost of material, Taxes, Transportation if any, Miscellaneous expenses, Labor, Wastage of materials, 15% towards contractors overheads and profit.
- 10. Bank will provide free Electricity and Water for the execution of work. However the Contractor shall make his own arrangement to draw the power and water from source as decided by Bank.
- 11. While executing the work the contractors have to ensure that no inconvenience whatsoever is caused to the offices / people functioning in the premises.
- 12. On completion of the work the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave whole of the site and the works clean and in a workman like condition to the satisfaction of client. No extra payment will be made for this purpose. After completion of work all accumulate debris, dirt etc shall be removed and disposed away from the Bank premises by the contractor at his expense. The Contractor shall take due care while disposing of such waste materials and ensure that any rules / regulations laid down by Municipal Corporation or any other statutory body are not violated. The Contractor shall be responsible and answerable to any complaint arising out of improper disposal of waste material.
- 13. Doors, Windows, Staircases and passages shall be cleaned / washed by the contractor as part of the contract work without any additional payment. The contractor shall clean the site everyday before the closure of work.
- 14. Adequate number of fire extinguishers, first aid boxes, must be provided on the site by the contractor.
- 15. Any item work which is not specified in the schedule and which is not capable of assessment by sight (visual) inspection and which becomes known only after the contract work has commenced, such as broken/ leaky pipes, cracks in walls, seepage. Percolating through the walls, beams / pillars etc shall be, on joint inspection, by the BANK and Contractor, assessed for quantum and the rate decided on mutual consultation.

Page 32 of 45

VARIATIONS

- 1. The Architect/ Bank shall make any variations of the form, quality or quantity of the works or of any part thereof that may in their opinion be necessary and for that purpose or for any other reason it be necessary, the Contractor shall do any of the following :
 - a] Increase / decrease/ omit any work
 - b] Change, character, quality, level, lines, position, dimensions etc.
 - c] Execute additional work of any kind as may be necessary for completion of the work.
- 2. And no such variation shall in any way vitiate or invalidate the contract but the extension of proportionate time limit, if any, for all such variations shall be taken in to account.
- 3. The Contractor shall make no such variations without an order in writing by Architect / Bank.

CANCELLATION OF THE CONTRACT OR PART OR FULL ON CONTRACTOR'S DEFAULT

If the Contractor shall at any time:

- a) Become bankrupt or insolvent.
- b) Make an arrangement without assignment in favour of his creditors or agree to carry out the contract under the committee of Inspection of his creditors.
- c) Being an individual / partner / company or corporation go in to liquidation.
- d) Have action levied on his goods or property on the works.
- e) Assign the contract or any part thereof otherwise than as provided in the general condition of the Contract.
- f) Abandon the Contract.
- g) Persistently disagree the instructions of the Architect / Bank and or contravene any provisions of the contract including general accepted principles of working.
- h) Stopping the work under flimsy excuse with threatening attitude or showing discourtesy to members so the majority members wish this.

In that case, the Bank may determine and terminate the contract after giving due notice and time to the Contractor. The Bank shall be entitled after giving due notice in writing for removal of the Contractor from whole or any portion of work, without avoiding the Contract or releasing the Contractor from any of his obligation or liabilities under the Contract and adopt any or several of the following measures:

- I. Rescind the Contract, in which case the security deposit of the Contractor shall stand forfeited to the Bank without prejudice to Bank's right to recover any amount from Contractor,
- II. Carry out the work or any part thereof by employing other agency and required labour and materials and debiting on Contractor's account.
- III. Measure up the work executed by the Contractor and to get the remaining work completed by another contractor at the risks and expenses of the Contractor. In the event of any several of the courses referred above being adopted.
- IV. Upon non-completion of the work, upon use of sub standard quality, upon non co-operation, upon a deadlock on a particular issue between the Owner/ Bank and the Contractor / Architect.
 - a. The contractor shall have no claim for compensation for any loss sustained by him by any reason for material purchased by him, tools, machinery, labor to retain the same in further execution of the work for wear, tear and destruction caused by his negligence.
 - b. The Bank shall be entitled to take possession of any materials, tools, machinery, equipment which was on site, as if those are the property of Bank to carry out the balance work. In this case Contractor is not entitled for any compensation for use and employment of the same.

ARBITRATION CLAUSE

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching of concerning the work or the execution or maintenance thereof of this contract or the right touching of concerning the works or the execution or maintenance thereof of this contract or the construction, remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination, foreclosure or Branch of the Contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Appointing Authority who shall be appointed for this purpose by the Bank, be referred for adjudication to a sole arbitrator to be appointed as hereinafter provided.

Page 33 of 45

For the purpose of appointing the sole Arbitrator referred to above, the Appointing Authority will send within thirty days of receipt by him of the written notice aforesaid to the Contractor, a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed.

The contractor shall on receipt by him of the names as aforesaid, select any of the persons named to be appointed as a sole Arbitrator and communicate his name to the Appointing Authority within thirty days of receipt by him of the names. The Appointing Authority shall thereupon without any delay appoint the said person as a sole Arbitrator, if the contractor fails to communicate such selection as provided above within the period specified, the Appointing Authority shall make the selection and appoint the selected person as the sole Arbitrator.

If the Appointing Authority fails to send to the Contractor the panel of three names as aforesaid within the period specified, the Contractor shall send to the Appointing Authority a panel of three names of persons who shall all be unconnected with either party. The Appointing Authority shall on receipt by him of the names as aforesaid selected any one of the persons named and appoint him as the sole Arbitrator. If the appointing authority fails to select the person and appoint him as the sole Arbitrator within thirty days of receipt by him of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from the panel as the sole Arbitrator and communicate his name to the Appointing Authority.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due any reason whatsoever another sole Arbitrator shall be appointed as aforesaid.

The work under the contract shall, however, continue during the arbitration proceeding and no payment due or payable to the contractor shall be withheld on account of such proceedings.

The Arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties fixing the date of the first hearing.

The Arbitrator may from time to time, with the consent of the parties, enlarge the time for making and published the award.

The Arbitrator shall give a separate award in respect of each dispute or difference referred to him. The Arbitrator shall decide each dispute in accordance with the terms of the contract and give a reasoned award. The venue of arbitration shall be such place as may be fixed by the arbitrator in his sole discretion.

The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parties. The cost of the reference and of the award including the Fees, if any of the Arbitrator who may direct to and by whom and in what manner such costs or any part thereof shall be paid and may fix or settle the amount of costs to be so paid.

The award of the Arbitrator shall be final and binding on both the parties.

Subject to aforesaid, the Provisions of the Arbitration Act, 1996 or any statutory modification or re-enactment thereof and the rules made thereunder, and for the time being in force, shall apply to the arbitration proceeding under this clause.

I / We hereby declare that I/We have read and understood the above conditions for the guidance of Tenderers.

Seal : Place : Signature of the Contractor Address :

Page 34 of 45

SPECIAL CONDITIONS OF CONTRACTS

- 1. All materials, tools, plants and equipment to be used for construction, shall be brought and stored on BANK premises by the Contractor in a manner directed in specifications for construction materials at his own cost and risk including his own security arrangement without causing hindrance to occupants.
- 2. All due precautions shall be taken by the Contractor to prevent damage including that of window panes, as a result of Contractor's action will have to be made good by the Contractor at his own expense.
- 3. a) All debris resulting from breaking work shall be carefully lowered on specially constructed platforms preferably in specially provided chutes and suitable screens and hoppers shall be provided to ensure that as far as possible no debris flies or rebounds from the building and / or scaffolding. Under no circumstances shall debris be thrown down on the ground or footpath.
- 4. The Contractor shall regularly remove all waste and debris from the site when one full truckload is accumulated on a regular basis. Dumping of debris temporarily on the premises shall be strictly in location allotted for the purpose and nowhere else. Every day after working hour's sweepers must clean the site.
- 5. The Contractor will provide at his own expense necessary sheds, passages, special covering, platforms to be constructed in front of main building, BANK office, staff toilet, and also netting, kantans, etc. in area of common passage at the work site.
- 6. Proper cordoning off shall be maintained at all times to ensure that no children or unauthorized persons enter the work area.
- 7. The Contractor shall bear in mind that he may have to carry out certain part of work inside the premises of the occupants and he will take extreme care not to damage inside Branch.
- 8. The contractor shall provide at his own cost necessary sanitary and drinking water facilities for his workers more about in area of site only and they commit no nuisance.
- 9. When a contractor is selected, if Architect/ Bank find any anomaly in rates of some specific items, the Contractor shall furnish explanation and rate analysis.
- 10. Rates quoted by the Contractor shall include all terminal taxes, octroi duties, central or state excise duties, import duties, sales tax and any other taxes leviable under the state or central government or public rules. No claim whatsoever shall be entertained in respect of escalation in prices of materials, labour etc. except change in taxes announced by Municipal or Government bodies subsequently. Rates quoted also include work Contract Tax. M.W. Tax, extra water charges, all liaison work with Municipal Authorities for Building Department, Water Department, Pest Control etc. including specific bills of water charges and sewage charges raised by BMC towards the repair works under taken including all out of pocket expenses. The Contractor at his costs and expenses shall obtain all permission from BMC, etc.
- 11. The contract shall not be deemed to be duly completed until maintenance certificate have been issued by the Architect recording that the works have been completed and maintained to his satisfaction and will be issued after defect liability period is over and after ascertaining the views of the repair committee.
- 12. The Contractor is responsible for the execution of all works, which is more particularly set out as per terms and conditions of the Agreement. The Contractor is well aware about the dangers and hazards for the completion of the said work. It is the Contractor who would be responsible in the event of breakage of glass of windows, etc. of the BANK and Contractor will take all precaution of BANK's property so as not to damage them.
- 13. The Contractor shall, at his own expense supply all the stores and materials required for the contract. All the materials to be supplied by the Contractor shall be of the best of kinds, and only of ISI standard. The

Page 35 of 45

Contractor shall furnish necessary proof to the satisfaction of the Architect / Bank that the materials comply with specifications as described in the Technical specifications. The Contractor shall, at his own expense and without delay, supply samples of materials proposed to be used in the execution of the work for the approval of the Architect / Bank, who may reject all materials not corresponding either in quality or in character with the approved samples. The Contractor is made aware that there will be no basic rate for all construction materials.

14. The Contractor shall not enter on or take possession of the site unless permitted to do so by the Bank. The portion of the site to be occupied by the Contractor will be clearly defined and indicated by the Bank and the Contractor will on no account be allowed to extend his operation beyond these areas. Then on completion, completely clean the areas of works against his final completion of work done in that area.

- 14. The Contractor shall suspend the execution of the work of any part/s thereof, wherever called upon in writing by the Bank / Architect to do so and shall not resume work thereon until so directed in writing by the authority. The Contractor shall also suspend the execution of work or any part thereof under notice of court, Government or Municipal Corporation unless the Architect / Bank instructs otherwise in writing. The Contractor will be allowed an extension of time for completion equal to period of suspension and no claim otherwise will be considered for payment. Time may also be extended to allow for alterations of work or deviation from the contract if it is felt reasonable by Architect / Bank.
- 15. If Bank has permitted the contractor to house his workers on site in specified areas, during progress of work he will erect temporary structures of the approved standards and scales for his workers and maintain at his own expenses. The Contractor should demolish / remove temporary structures before the main work comes to an end and clear the site. This facility is not incorporated in contract and will be exclusively at the discretion of the Bank and the Bank can stop this facility in the middle of work and Contractor cannot claim anything whatsoever for taking away this facility any time. If this facility is granted, he shall be responsible for giving all necessary notices of infection and contagious disease of his workers and instantly remove such cases from site. The Contractor shall obtain all necessary permission from municipality, government, etc. at his own costs.
- 16. It is hereby clarified that within the guarantee period of the entire work the owner / Bank observes any hitches or lacunas or damage caused to the flat and / or common area and / or the BANK's property, the Architect / Contractor shall be communicated regarding the same. The Architect / Bank would visit the premises and give their comments in respect of the same. The rectification of the damaged area is the sole prerogative and responsibility of the Contractor who is to rectify the said damage at his costs, etc. within the decided time frame as mutually decided between the parties. In the event of failure of the Contractor to rectify such error the Bank / Owner shall have the full liberty to deduct the amount of loss at cost from the balance amount due end payable to the Contractor.
- 17. The Contractor shall clean and level up the premises and open spaces in and around building to the satisfaction of the Bank at regular intervals and after completion of work. If he fails to their satisfaction, the same shall be carried out by the owner at Contractor's risk, cost and consequences and work will be treated as incomplete.
- 18. It is hereby clarified that the Employees / Workers who would be assigned the work and who would be temporarily lodged in the premises of the owner shall have no access whatsoever in the building after the completion of the work for the particular days. The workers shall not enter the building for the purpose of taking water or for any other private jobs that would be given by the flat owners during the subsistence of the work assigned.

TECHNICAL SPECIFICATION

POWER PANELS:

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

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

The panel shall have separate cable ally and a bus bar chamber. The bus bars shall be rigid hard drawn tinned electrolytic copper & sleeved with heat shrinkable sleeves. The current density shall not exceed 1.25 amp per sq. mm. and the neutral bus shall be rated for capacity of phase bus unless otherwise stated in schedule of quantities/drawings. However, the minimum size of bars shall be 25mm x 3mm.

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

All wiring inside the panel shall be done with switchboard copper conductors/cables soild copper links. The insulators for supporting the Bus-Bars shall be epoxy based cast resin. All hinged doors shall be earthed with flexible braided copper earth. An earth bus of copper shall be fixed along the length of the panel at the lower section. Adequate ventilation for the panel shall be provided. Logic diagram of operation of switches shall be painted on the panel. The name plates for each feeders shall be of engraved design and pasted to the respective switch gear. The letters shall not be less than 10mm size for individual feeders and not less than 18mm for the main feeders. All switchgear to be mounted in the panel shall be as per schedule of quantities.

SWITCH FUSE UNITS:

Switch Fuse Units shall be of sheet metal or iron clad with HRC fuses as described in schedule of quantities. The unit shall be of robust construction of standard specified make. design to withstand adverse working conditions. It shall have quick break type mechanism with ON and OFF position indicators of the operating handle. The switch shall be interlocked so that the unit cannot be opened in ON condition. The interior shall be so arranged that clearance from live parts are adequate and shrouded. Manufacturer's instructions shall be followed for installation of switch fuse units. The switch shall be solidly earthed. The switch shall be mounted on walls on angle iron support grouted to wall. The supports shall be treated for rust treatment & painted with 2 coats of synthetic enamel paint. The height of the switch board shall be such that it is accessible for operation & maintenance.

CABLES:

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

Cables laid under ground shall be to a minimum depth of 600 mm. It shall be ensured that cables laid underground are free of water lines, sewage lines etc. The trenches shall be at least 30 cm wide & filled with 10

Page 37 of 45

cms thick of layer of dry sand on which the cable shall be laid. Further, 10 cms thick sand layershall be put on the cable over which a brick layer shall be kept. The trench shall than be back filled with soft earth, rammed and consolidated to original level. Cable route indicators shall be laid at intervals of 20 metres and at all change in directions. For cables laid on walls aluminum tags shall be fixed showing the size of the cable and the feeder number of the cable. These tags shall be at each ends and at least one or two places at intermediate positions. The mode of measurement of the cables shall be as follows :

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

DISTRIBUTION BOARDS:

- These shall be of sheet metal and of standard design with copper bus bars. The board shall be fixed at accessible heights. The boards shall be solidly fixed to walls/partitions, concealed of open as directed. All connections inside the distribution board shall be neatly arranged and tied with PVC strings. The MCB's shall be of 9 KA for fault level. The distribution board shall be suitably earthed. Legend shall be written on D.B. & Circuits.
- 2. The Distribution Board circuitry shall be as per the schematic/given in Drawing.
- 3. The Sheet steel used for fabrication shall be of CRCA of 14/16 SWG. The Board shall be suitable for wall mounting. It shall be totally enclosed, Dust Proof & vermin proof. The fabrication shall be as per relevant is Specifications for degree of protection by enclosure for low voltage switch-gear IP 52. The Equipment such as MCB, ELCB, Insulators, Bus-Bars shall be as per relevant is specification with latest amendments.
- 4. The Sheet steel shall be smoothly finished, leveled and free from flaws. All doors, removable covers shall be Gasketed all round the perimeter.
- 5. The Service Voltage is 440 volts & Busbar will be Electrolytic copper. The copper busbar shall be tinned through out the length.
- 6. The door interlock shall be provided so that it shall not be possible to open the door with breaker in close position.
- 7. Enough space shall be provided for termination. The minimum two earth terminals shall be provided for each D. B. The Board shall be factory wired with proper ferruling.
- 8. Adequate shrouds shall be provided for avoiding accidental contact with Live Terminals, Busbar etc.
- 9. The Conduit knockout shall be provided for Conduit Entry.
- 10. The guaranteed technical particulars shall be provided for the MCB & ELCB etc.
- 11. The engraved black anodised labels shall be provided on all feeders.
- 12. All Steel works shall undergo a process of degreasing, pickling in acid bath, phosphating.
- 13. This shall be followed by two coats of primer and two coats of final finish paint, both applied with spray. The colour shall be light battleship gray.
- 14. The distribution board shall have hinged door.
- 15. The busbar supports shall be non hygroscopic, anti tracking material.

POINT WIRING

(a) METAL CONDUITS:

- 1. All conduit pipes shall confirm to IS 9537 PART-II 1981. Metal conduits shall be ERW black enameled 20mm/25mm as the case may be depending upon the number of wires permitted. The conduits shall be fixed to walls/ceiling with M.S. saddles and spacers at an interval of 1 meter and on either side of bends.
- 2. All conduit accessories shall be 15 gauge & bends shall be of inspection type. All bends, couplers, threaded portions etc. shall be painted with anti-corrosive paint. Bends in the pipes shall be done with bending hickeys.
- 3. All pipes shall be cleaned for sharp burrs. Switch boxes shall be of G.I. 16 G/14G. The switch boxes shall be concealed as per site requirement & as per Architect's/Architect's Instructions. Point shall be controlled with 5A switch or directly from DB as specified in schedule of quantities. Where plate type switches are not specified the switch-board shall have 3mm thick hylum sheet on which switches shall be mounted.
- 4. While laying the conduits in the slab before casting the slab, all drops shall be laid accurately to fall in position of the switchboard. Junction boxes shall be sand filled. All joints shall be airtight. Conduits shall be fastened to the re-enforcement properly so that the conduits do not get dislocated while casting the slab. All conduits shall have 18 swg fish wire.

Page 38 of 45

- 5. The conduit shall be of 16 guage unto 32mm dia and 14 guage above 32mm dia. reputed and approved make conforming is specification. Conduit shall be Heavy guage rigid PVC with All accessories/fittings including ordinary & inspection tees; bushings, reducers, junction boxes, terminal boxes, saddles and steel supporting materials shall be of the same as of the conduit. The contractor shall have dies for threading of conduit.
- 6. The conduit shall run along walls, ceiling, flooring in accordance with layout drawings.
- 7. The conduit shall be field bend as far as possible with reasonable long radius. The conduit bends shall be free from cracks, other damage to the pipe or its coating and shall not have pipe section unduly flatten..
- 8. The conduit joint shall provide the structural rigidity and low electrical resistance.
- 9. All open conduit ends shall have bushings and all threads shall be cleaned and well painted with coating or red lead & oil. All burrs shall be smoothened and cleaned.
- 10. The conduit shall be supported with saddles at regular interval of 1000mm. The saddles shall be fixed with Rawal plugs and M. S. screws of 3mm size.
- 11. The No. of wires through a given diameter of conduit shall be as per is specification.
- 12. When two length of conduit are joined together through a coupling, running threads equal to the full length of the coupling shall be provided on any one length. Conduit length exceeding 8 meter length shall be provided with junction boxes.
- 13. Conduit & accessories shall be securely fixed before any operation like concrete pouring plastering etc. The conduit shall be fixed by clips which shall not cause deformation of conduits. The conduit fixing shall be at regular intervals not exceeding 1.5 meter. At the bends the fixing shall be secured by fixing clips at 150mm. All the supporting holes are to be drilled by electric drill machine.

(b) PVC CONDUITS:

The PVC Conduits shall confirm to latest IS standards and shall be of medium gauge. The conduits shall be joined with PVC adhesive at joints. The Conduits shall be fixed to walls/ceilings with GI, Spaces and Saddles at an interval of 60 cms & on either side of bends. The number of wires drawn in the conduits shall be as per table 1. The point wiring shall be controlled as in (a) above. The wiring shall be done with 2nos. of 1.5 sq.mm (Phase & Neutral).& 2.5 sq. mm. (earth) PVC insulated, copper conductors, multi stranded and color coded with green as earth and black neutral. The circuit wiring shall be with 3 nos. of 2.5 sq. mm. PVC insulated, copper conductors, multi stranded from distribution board to switch board and the rate shall be included in the point wiring unless otherwise stated in schedule of quantities. All other details shall be as for metal conduits.

(c) CASING CAPPING/TRUNK AND TRUNKLING :

PVC casing shall be fixed, wooden partitions by means of screws spaced not more than 60 cms apart. Holes for fixing the PVC capping shall be done by drilling machine only and these holes shall be plugged with PVC plugs or grips to which the screws shall be fastened. No less than I inch PVC casing shall be used. All bends, tees, joints etc. shall be done in workman like manner with standard accessories. The number of wires in PVC casing capping shall be limited to a fill factor of not more than 60%. The point shall be controlled by 5 amp switch. The switch boards shall either be flush mounted with partitions or surface mounted or concealed mounted as per site requirements and as directed. The wiring shall be carried out as described in (a) and (b) above.

The wiring on the False celling will be done with the help of Cable tray. This cable tray will be earthed. No conduits will lay directly on the surface of the false celling.

CIRCUIT WIRING

- 1. The Circuit wiring shall comprise of laying PVC conduit from lighting distribution board to the first switch board & pulling of wires within the conduits with 2.5 Sq.mm copper wire, PVC insulated, 100v grade wire.
- 2. The scope includes all materials & labor with Installation. It also includes making proper connection in the Distribution board & switch board.
- 3. In case of group control directly from Distribution Board, the primary point shall be from D.B. to the first point and secondary point and from first point to the next point looped. The point shall terminate into the 3 plate-ceiling rose or as per the standard works module.

SWITCH BOARD

The lighting switch board boxes shall be MS/ zinc passivated with 16 gauge made suitably for controlling group of light/fixture or light control as indicated in the drawing. The switch board boxes shall be suitably in the office

Page 39 of 45

area as concealed type. All the switch boxes shall be provided with removable cover with proper provision of Plate/Piano type switches.

WIRING METHODS

- 1. The wire pulling in conduits shall be in accordance with standard practices. All the wires in a particular section by conduit shall be bunched together and pulled at a time.
- 2. The wires used shall be color coded with Red wires for R phase, Yellow wire for Y phase, Blue wire for B phase Black wire for neutral and Green wire for each continuity conductor.
- 3. All the wires shall be purchased directly from the manufacturers/Authorized Dealers and approved by the Architect.
- 4. All the wire shall be insulated with adequate thickness of extruded PVC.
- 5. All wires shall be of 1100v grade conforming to is 694 with latest amendment.
- 6. All the wire ends shall be ferruled with colour codes & numbers.
- 7. All the circuits shall be identified at both ends of the circuit.
- 8. A maximum of 3 lights to be switched on one switch of 5A.
- 9. The wiring shall be carried out with multi stranded PVC insulated copper wires of 1.5 sq. mm. 2Nos (Phase & Neutral) & 2.5 sq.mm. (Earth). In all cases the earth shall be of green color and neutral shall be black color. All wires used shall be of 660 V grade. The point wiring shall be inclusive of circuit wiring from Distribution Board to the switch-board unless otherwise stated in schedule of quantities. The circuit wiring shall be with 3 nos. of 2.5 sq.mm PVC insulated multi stranded copper conductors color coded as detailed above. The rate shall also be inclusive of any chasing as directed by the Architects/Architect/Client's Engineer to conceal the drops and finishing the same.

5A/15 AMPS. SWITCH SOCKET OUTLET WIRING

- 1. The Point wiring for 15 A Switch socket outlet includes running of 3 x 4.0 sq.mm PVC insulated stranded copper wire through conduit from the distribution panel board to the individual S/S/O
- 2. Two nos of 15 A S/S/O are to be looped in and controlled by MCB of 20 Amps in the distribution board at each floor. The circuit length shall not exceed a length of 70 meters.
- 3. All the wires for the S/S/O shall be pulled through separate conduit system (not to be mixed with light 5 Amps S/S/O etc.)

5 AMPS SWITCH SOCKET OUTLET

- 1. The point wiring for 5 Amps switch socket outlet includes running of 3 x 2.5 sq.mm copper conductor, PVC insulated, 1100v grade wires in PVC conduit from the light distribution board to the Individual socket.
- 2. A maximum of 6/8 Nos. socket are to be looped in & controlled by MCB in the lighting distribution board. The circuit length shall not exceed 60 meters.

15/5 A SWITCH SOCKET OUTLET

- 1. It shall be of approved make conforming to latest IS standards. The three-pin socket shall be provided with safety shutter to prevent accidental contact with live parts.
- 2. The box for socket outlet shall be suitable for concealed/surface mounting and should be supplied by the Manufacturer with the switch & socket unit.

20 AMPS POINT WIRING

- 1. The 20 A SP MCB with Reyrolle socket is to be provided including running of 3 x 4.0 sq.mm PVC insulated stranded copper wire through PVC conduit from distribution board to the individual switch.
- 2. One switch is to be provided in one circuit and controlled by one MCB of 20 Amp in the distribution board at each floor.
- 3. All the wires for the switches shall be pulled through separate conduit system (not to be mixed light, 5 A S/S/O etc.)

TELEPHONE POINTS

1. Telephone Points shall include supply & installation of 25mm diameter PVC conduit & Accessories along with 2 pair/4 Core wire from Tag Block to Individual Point along with the Conduit. The Telephone wire shall be of oelton make or of approved sample.

Page 40 of 45

- 2. The Conduit shall be laid concealed in slab/wall/beam column etc., from the Telephone Box to the Individual Telephone socket outlet Point as market in the Drawing.
- 3. In case of provision for further point for Telephone G.I. Pull wires shall be laid inside the entire length of conduit.
- 4. The Telephone Tag Block of M.S. shall also be provided by the Contractor including latest Type of Terminal strip cover extra as per MTNL approved list.

EARH PITS / STATION

The earthing station shall be done as per IS 3043 (1981) and as per drawing no. E1. The earth pit shall be atleast 2.5 mtrs

deep with GI plate electrode shall be hot dipped of $600 \text{ mm} \times 600 \text{ mm} \times 6 \text{ mm}$ thick. The size for copper electrode shall be $600 \times 600 \times 3 \text{ mm}$ thk. An alternate layer of salt and charcoal shall be filled up to 200 mm above the top of the electrode. The electrode shall be connected with 25mm x 6 mm thick GI Flat which shall be terminated with nuts and bolts into brick masonry chamber on top. The brick masonry chamber shall be of size 300mm x 300mm x 300mm deep which will carry the funneling arrangement for watering. A GI Flat of 25mm x 3 mm from brick masonry chamber to the switch gear inside the switch room shall be laid under ground and / or fixed to walls and the rate for this shall be paid as a separate item.

INSTALLATION OF ELECTRIC FITTINGS

All electrical fittings shall be fixed with down rods or on round blocks as stated in schedule of quantities. The down rods shall be 20 mm dia and 1.6 mm wall thickness of ERW black enameled MS. The down rods shall be fixed with ball and

socket joints check nuts etc. Special fixtures like spot lights etc. shall be fixed to the false ceilings as per manufacturer's recommendations. The fittings shall be connected with 3 core 0.5 sq. mm. flexible copper cord / cable from ceiling rose and suitable earthed.

TESTING OF ELECTRICAL INSULATION

The following tests shall be carried out after completion of the electrical insulation work.

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

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

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

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

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

Page **41** of **45**

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

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

POWER FACTOR CORRECTION PANEL

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

The power capacitors shall be APP type, low loss, 3 phase, delta connected and self discharged type. The power factor control shall be done by automatic power factor control relay for controlling the power factor within the set limits by auto switching of required capacitor Banks. The required Capacity / P.F Banks shall be as per schedule of quantities. The P.F shall be automatically corrected to near Unity.

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

The general specification shall be as follows :

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

PREFERRED MAKES OF MATERIALS

- 1. All materials to be supplied by the contractor shall confirm to the relevant Indian Standard and bear "ISI" marking distinctly. However, for the guidance of the Contractor some of the preferred makes of materials are as follows.
- 2. All materials shall be of the first quality.
- 3. Wherever Contractor proposes to use 'equivalent 'makes (i.e. other than specified) the same shall be done only after prior written approval from the Architect/Consultant. The delay if any on the account of unavailability of the prescribed material will not be considered. Hence no claims of time extension or the hike in price of the commodity will be entertained.
- 4. Read "or equivalent approved "at the end of the list of approved manufacture / sub-contractor / brand for every material. It can also be the other Brands which the Architect/consultant can approve on the merits of the commodity/element of material but the altered Brand cannot have the impact on the net price outcome of the mentioned commodity in the Tender.

SR NO. MATERIAL

APPROVED MANUFACTURES/SUPPLIERS

1.	SFU/ Isolator switch	EE/L&T/Siemens					
2.	L.T. Panels	EE/L&T/ Siemens / As approved					
3.	Meters	AE/MECO/ Rishab/ Silkon/ UE					
4.	DB (HRC Fuse)	EE/Standard/ CPL/ Havel					
5.	DB (MCB)	EE/L&T/ Siemens					
6.	Wires	Finolex / RR Cables/Havells					
7.	Conduits (MS/GI)	Supreme BEC/ Precision / Circle Ark					
8.	Switches /Sockets	Anchor/ Precision/ CPL/ ROMA/Southwest/					
	Avanti/ LK pace						
9.	Lugs	Dowell/Jainson					
10.	Telephone cables	Finolex/ Delton/ MTNL approved					
11.	Decorative lights (spot lights/ picture lights wall)	Phillip / Wipro					
12.	Fire detectors	Appolo Honry well					
13.	Security system	Shellain / Radioncis sentrol					
14.	ELCB/RCCB	EE/MDS/ Datar					
15.	Telephone Tag-block	Krone					
16.	NCCBS	L&T/EE/Crompton					
17.	Air Circuit Breaker	L&T Siemens /EE					
18.	Changeover Switches	Siemens / Blcon/ Kayee					
19.	Contractors	Siemens /L&T					
	Music speakers	Phillips/ Ahuja					
	Amplifiers	Phillips /Ahuja					
	Elec. Fittings & fixtures	Phillips /Crompton/Wipro					
	PL/ Spot Lights fittings	Phillips /K-lite/Wipro					
	Copper Cable (Conductor)	Finolex / CCI ISI Mark					
	Flourscent Lights, PL Lights and Lamps etc.	Phillips/Crompton/Bajaj					
	MCB/ ELCB	Legrand /DATAR					
	Main switcher (sheet metal boxing)	L&T					
	Ceiling Fan	Crompton/ Usha, Bajaj, Orient					
-	Wall fan	Usha /Almonard/Bajaj					
	Exhaust fan	Unique/Crompton/GEC					
	Gland Flange Type	BRACO					
32.	Casing Caping Patti	PRESTO PLAST					

LIST OF APPROVED AND NOMINATED MANUFACTURES / SUPPLIERS OF MATERIALS

Page **43** of **45**

APPROVED LIST OF HVAC SUPPLIERS/ BRANDS

SR.NO.	MATERIAL	APPROVED MANUFACTURES / SUPPLIERS
1	VRV SYSTEMS	MITSBUSHI, DAIKIN, HITACHI.
2	L.T. Panels	EE/ L&T / Siemens / As approved
3	Electric Cables	KRISHNA CABLES / POLYCAB (ISI Marked) / approved equivalent
4	Meters	Rishab / L&T / Schneider / Automatic Electric
5	Drainage Pipes	Reputed makes like Finolex, Prince, Uttkarsh, Ashirvad

I/We hereby declare that I/We have read and understood the above instructions which have been issued as conditions of the contract.

In case any of the makes for any of the materials is missed out in the above list, then the contractor shall inform the Consultants about the same and obtain the approval. Thereafter, he can proceed with the supply of the equipment's.

PREAMBLE TO BOQ

ABBREVIATIONS:		
R.MT.	:	Running Meter
Sq. MT.	:	Square Meter
Sq. Ft.	:	Square Foot
T.W.	:	Teak Wood
Q.R.O	:	Quote Rate Only
C / C	:	Centre to Centre
C.P.	:	Chrome Plated
NO.	:	Numbers.
MM.	:	Millimeter

- 1. All dimensions are in M.K.S. unless otherwise stated.
- 2. The quoted rate shall be all inclusive and cover the cost of material including wastage, Freight, all types of taxes, duties, royalties, erection, construction, testing of materials, if required samples brought for approval, tools and tackles, plant and equipment's, supervision, overheads, profit and any other expenditure incurred for completion of work as per drawings, specifications and to the full satisfaction of Bank / Architect.
- 3. The rates quoted shall be valid for working at all heights, depths, and on all floor levels, No extra payment shall be made for scaffolding, staging, ladders, handling, transportation of men and materials at higher or lower levels and stacking of materials, removing debris etc. from the site. etc.
- 4. The item rate specifications are indicative. The Contractor will have to carry out the work In accordance with the drawings, technical specifications and / or other conditions laid down in tender document and to the full satisfaction of Bank / Architect.

Page 44 of 45

- 5. Quantities mentioned against respective items are approximate and can vary to any extent. Payment shall be made on actually executed quantities.
- 6. No claims shall be entertained in case of increase or decrease in quantities, Bank / Architect reserves the right to increase / decrease quantities of any item and also to add / Delete any item in totality. Bank / Architect reserve right of operating any item for any work.
- 7. Rates for ELECTRICAL WORK shall include cleaning glass panels, floor etc.
- 8. After completion of work the site shall be handed over absolutely clean, after ensuring that all floor, walls, etc. are spotless clean.
- 9. Unless otherwise noted, the method of measurement will be as per I.S. 1200.
- 10. Bank / Architect reserve the right of operating all 'Quote Rate only 'items.
- 11. Wherever contractor proposes to use 'equivalent 'makes (i.e. other than specified) he shall obtain Architects prior approval. Any additional cost and time lost due to this will be on Contractor's account and no claims will be entertained.

WITNESS

(Signature of the Tenderer)

SUMMARY SHEET OF INTERIOR FURNISHING WORKS OF UBI VILE PARLE BRANCH.

	SUMMARY								
S.NO	DESCRIPTION	AMOUNT							
1	Air Conditioning work								
	Not Total								
	Net Total								
	Total Projected Cost of the Project.								
	The given estimate is exclusive of the GST.								

Signature with seal of the tenderer

M/s Deviya Arch Associates An Association of Engineers Consultants We believe in delivering the best

BILL OF QUANTITY OF FURNISHING VRV WORKS FOR VILE PARLE BRANCH.

	WORK ESTIMATE FOR VRV WORKS FOR UBI VILE PARLE BRANCH.						
Sr. No	Description	Unit	Qty	Rate	Amount		
	HIGHSIDE						
1	Supply of HITACHI/TOSHIBA/O GENERAL OR Equvialent VRF System	The Venue of works must be visited before Quoting the rates. Every works of this prestigieous Project is to be done in accordance with the relevant company catalogue/design basics. The Site has pre- installed outdoor unit . The general tender requirements are posted for the required works to be done in completion with full Guarantee for atleast 2 years of the composite works done by the vendor firm. The contractors quoting below 15% of the estimated cost will be required to submit Performance warranty equivalent to 10% of the estimated cost of works which will only be released after the issuance of successful completion letter of the Architect/ Consultant The Vendors must have the dealership of the makes of the approved Brand and Modal to be supplied at Site. Wherever the word equvialent is used the same means to get the written approval of the Architect for that particular make.					
	Supply VRF Outdoor units System with R-410A Refrigerant, Entire works inlude all the constituents right from Supplying to installation ,commissioning and running of the machine in good condition as marked in the manual of the company.						
а	16 HP	No	2				
2	VRF Indoor Units						

Sr. No	Description	Unit	Qty	Rate	Amount
	Supply VRV/VRF Indoor units System with R-				
	410A Refrigerant. The indoor units are to be				
	installed to have them complete in all respects				
	including their functionality.				
2.1	4 Way Cassette Units with Cordless Remotes				
а	4.TR	Nos	0		
b	3 TR	Nos	0		
С	2 TR	Nos	8		
d	1.5TR	Nos	5		
2.2	High wall unit				
а	1 TR	Nos	0		
b	1.5 TR	Nos	2		
	Total				
	GST @ 28%				
	Grand Total				
Sr. No	Description	Unit	Qty		
	LOW SIDE BOQ				
1	Installation of VRV or VRF ODU / IDU and				
	other Accessories				
1.1	VRV or VRF Outdoor Units				
	Checking, Testing and Commissioning of VRV or				
	VRF Out-door units System with R410A				
	Refrigerant. Note: (The Prices of ODU is including				
	with Refnet Joints for Outdoor Units).				

BILL OF QUANTITY OF FURNISHING VRV WORKS FOR VILE PARLE BRANCH.

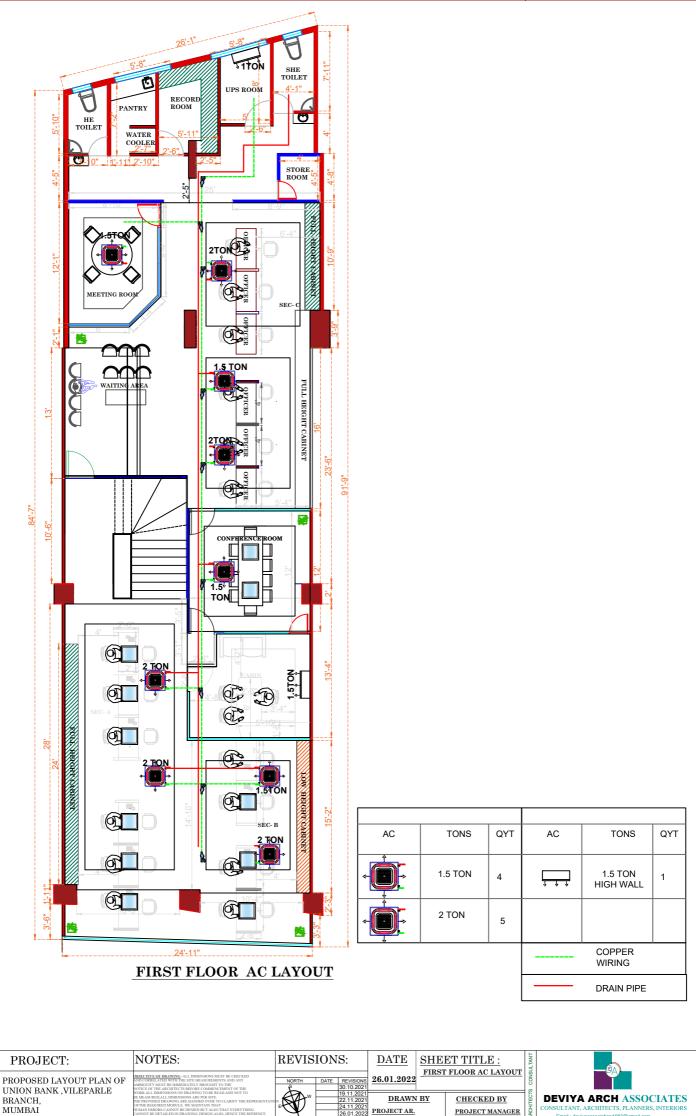
Sr. No	Description	Unit	Qty	Rate	Amount
a	16 HP	No	0		
1.2	VRF of Indoor Units				
	Installation, Testing and Commissioning VRV or				
	VRF Out-door units System with R410A				
	Refrigerant. MS Frame for Indoor units complete				
	with epoxy painting, vibration isolation pads,				
	supports, hangers, railing brackets etc.				
1.3	3 Way Cassette Units with Cordless Remotes				
а	4.00 TR	Nos	0		
b	3.00 TR	Nos	0		
С	2.00 TR	Nos	8		
d	1.5 TR	Nos	5		
2.2	High wall unit				
a	1 TR	Nos	0		
b	1.5 TR	Nos	2		
1.4	Refnet Joints				
a	Installation, Testing and Commissioning of Refnet	Nos	19		
	Joints for IDU & ODU				
2	Refrigerant Piping				

Sr. No	Description	Unit	Qty	Rate	Amount
2.1	Supply, Installation, Testing and Commissioning				
	of All refrigerant piping between indoor &				
	outdoor units duly 19mm & 13mm insulated				
	Nitral Rubber as per specifications shall be				
	properly supported with hanger and exposed				
	piping shall be properly supported. All piping				
	shall be pressure tested for 1.5 times the working				
	pressure.				
	Hard Piping	Rmt	115		
	Soft Piping	Rmt	100		
3	Drain Piping				
3.1	PVC Drain				
	Condensate Drain Water piping constructed out				
	of PVC / HDPE hard pipes, fitting, accessories,				
	bends, elbows, tees, flanges, tappings, wall				
	sleeves, hangers, supports, anchors. The pipes to				
	be duly insulated with 9mm Nitrile rubber				
	insulation. The inclusion of 2 Nos of Drain Pumps				
	are requsites of this works				
a	40 mm dia	Rmt	60		
b	25 mm dia	Rmt	55		
4	ELECTRICAL WORK				

Sr. No	Description	Unit	Qty	Rate	Amount
4.1	CONTROL CABLES FOR BETWEEN IDU AND THEIR REMOTE				
	Supply & Installation of All control cables between indoor and their Remote laid in PVC pipe and clamped				
а	2 core x 1.5 sqmm YRY cable	Rmt	190		
	Sub Total Low Side				
	GST @ 18%				
	Total Low Side Work				
	Total High Side + Low Side Amount				
1	1TR HWM Split Unit Invertor AC)Model FOR ATM				
1.1	Unit Cost (Excise+Transport)		3		
	GST @ 28%				
	Grand Total				
1.3	Installation Cost (Upto 12 Feet of Piping)		3		
1.4	Outdoor Stand & Caging with Lock & Key facility		3		
1.5	water outlet using Soft and Hard CPVC Piping of 32 mm and 19 n	nm (In N	19		
1.6	Extra Copper Pipeing as per standard norms (In mtrs)		25		

BILL OF QUANTITY OF FURNISHING VRV WORKS FOR VILE PARLE BRANCH.

Sr. No	Description	Unit	Qty	Rate	Amount	
	Total					
	GST @ 18%					
	Grand Total					
	Grand Total Including GST					
	Grand Total Excluding GST					
	The Essentials of the works include the submission of the entire drawings before the start of the works and after the completion of works. The Approval of the modules and modals used in the works, the submission of the PERT Chart and th authentic letter of completion of the Testing works at Site are the main requirements of the works.					



BLECTIVE OF DRAWING -ALL DIMENSIONS MUST BE CHECKER IND CORRELATED WITH THE SITE MEASUREMENTS AND ANY MBIGUITY WITS BE BMEDDATELY BROUGHT TO THE SOTICE OF THE ARCHITECTS BEFORE COMMENCEMENT OF THE VORKALL DMENSIONS ON DRAWING TO BE READ AND NOT TO Ð DRAWN BY CHECKED BY PROJECT AR. PROJECT MANAGER



