

PQ&TECHNICAL BID

**Notice for tender cum prequalification of contractor for Furnishing of Bank's Flats
at Lucknow Uttar Pradesh.**

**NAME OF WORK:
Furnishing of Bank's Flats at Lucknow Uttar Pradesh.**

BANK OF BARODA

GENERAL MANAGER,
ZONAL OFFICE, Lucknow Zone,
Baroda House, V-23, Vibhuti Khand, Gomti Nagar, Lucknow.
Tel- 0522-6677-740/741/660 email-pe.upu@bankofbaroda.com

ARCHITECT

GUPTA & ASSOCIATES

ARCHITECTS, INTERIOR DESIGNERS
9B-42 Mohan Kunj,
Vrindavan Colony, Lucknow,
Ph - 7906158347, 9935330077

Notice for tender cum prequalification of contractor for Furnishing of Bank's Flats (52 No) at Vrindavan Yojna Lucknow , Uttar Pradesh.

NOTICE FOR TENDER

Bank of Baroda invites offers/Tender from eligible Contractors of repute for Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna, Lucknow, Uttar Pradesh.

Duly completed application forms, which can be downloaded from Bank's website, should reach the Office of The General Manager, Bank of Baroda, Zonal office, Lucknow Zone, Baroda House, 3rd Floor, V-23, Vibhuti Khand, Gomti Nagar Lucknow 226010 on 17.06.2019 before 15.00 Hrs.

For further details log on to our website www.bankofbaroda.co.in/tenders.asp

Corrigendum/Addendum, if any, will be issued only on our Bank's website www.bankofbaroda.co.in/tenders.asp . Bidders are requested to check for Corrigendum/Addendum, if any , before submission of Bids.

Technical bid

Notice for Tender Cum Prequalification of Contractor for Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.

Bank of Baroda invites tender/application from eligible Contractors of repute for the following work:-

Sr. No.	Name of Work	Estimated cost in Rs. (approx.) Exclusive of GST
1.	Furnishing of Bank's Flats (52 units) at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.	100 Lacs

1. Contractors desirous of tendering for above work and fulfilling the following requirements shall be eligible (Technical Bid specification)-

(i) Experience of having successfully completed similar work during last -7- years ending on 30.04.2019 should be either of the following:

a. Three completed works each costing not less than Rs. 40.00 Lacs.

OR

b. Two completed works each costing not less than Rs. 50.00 lacs.

OR

c. One completed works costing not less than Rs. 80.00 lacs

Similar Jobs (Definition): Furnishing of flats/houses/units including work of modular kitchen.

(ii) Average annual Turnover of the Firm should not be less than Rs. 30.00 lacs during last three financial years ending on 31.03.2019.

Certificate of Financial Turn over: At the time of submission of tender, the tenderer shall submit Affidavit/Certificate from Chartered Accountant mentioning Financial Turnover of last 3 years or for the period as specified in the tender document. There is no need to submit entire voluminous balance sheet. However, one page of summarized balance sheet (Audited) and one page of summarized Profit & Loss Account (Audited) for last 03 years to be submitted in hard copy also.

2. Contractors shall submit the Performance Certificates from the respective previous employers in support of above otherwise application is liable to be rejected.

3. They must be having adequate organizational setup and reasonable presence in the work area and nearby and be having sufficient number of experienced personnel, technical know-how, and infrastructure to complete the project well in time.

Furnishing of Bank's Flats (52 NO) at Himalaya Enclave Vrindavan Yojna Lucknow U.P.

4. Bank reserves right to reject any or all the applications without assigning any reasons or whatsoever.
5. Contractor should submit authorization/dealers certification from Manufacturers' along with their application. Work has to be carried out in multistoried apartment.
6. Bank's flats are in two different blocks and are located on 4th to 10th floor. Rates shall include lifting of materials. No extra lifting charge will be paid.

SCOPE OF WORK – The main feature of the desired scope are listed below-

1. Flats Furnishing works like cabinet works, Modular kitchen work (Interior Work) etc..
 2. Providing and fixing Electrical fixtures, and supply and fixing Aquaguards etc. as per tender.
- List Of Make: Refer Clauses in Technical Specifications below.
- The application should be submitted in sealed envelopes super scribing “**Tender For Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.**”
- Financial bids will be opened of only those bidders who will qualify in technical bids.
- Application/tender completed in all respect along with relevant documents duly super scribing the name of work as per following details-

Envelope I: Containing duly filled Technical Bid (with seal & sign of bidder on each page), tender document (to be downloaded from bank's website) and EMD of Rs. 1, 00,000/- in the form of DD in favour of “Bank of Baroda, Lucknow”

Envelope II: Containing Financial Bid.

Envelope-III: Containing Envelope I & II

The application/tender should be dropped/submitted in Tender Box on or before **17.06.2019 3:00 PM at office of;**

The General Manager,
Bank of Baroda
Zonal office,
Baroda House,
3rd Floor, V-23,
Vibhuti Khand, Gomti Nagar
Lucknow 226 010

PQ Application and technical bid will be opened at above office on same day at 15.30 Hrs in presence of bidders who want to be present in the opening Process.

Instructions to the applicants for furnishing information as a part of application.

Intending applicants are required to submit their applications with full bio data/Basic Information giving details about their organization, experience, technical personnel in their organization, competence and adequate evidence of their financial and technical standing etc. in the enclosed form which will be kept confidential.

While deciding upon the technical qualification of applicant great emphasis will be given on the ability and competence of applicants to do good quality works within the specified time schedule and in close coordination with other agencies.

Each page of the application shall be signed. The application shall be signed by person(s) on behalf of the organization having necessary authorization/power of attorney to do so (certified copies to be enclosed).

If the space in the proforma is insufficient for furnishing full details, such information may be supplemented on separate sheets of paper, stating therein the part of the proforma and serial number. Separate sheets shall be used for each part. However, the format shall be as per proforma.

Any letter or document accompanying the application form shall be submitted in duplicate.

Applications containing false/ incomplete and/or inadequate information are liable to be rejected. Also mere fulfillment of eligibility criteria does not guarantee selection.

While filling up the application with regard to the list of important projects completed or on hand, **the applicants shall include only the works as per Technical Criteria.**

Clarification, if any required, may be obtained from the office of the General Manager, Bank of Baroda, Zonal Office, V-23,Vibhuti Khand, Gomti Nagar, Lucknow (Phone 0522 -6677741/40/7660) **Email-pe.upu@bankofbaroda.com/em.upu@bankofbaroda.com.**

Canvassing in any form in connection with pre-qualifications is strictly prohibited and the application of such persons/organizations that resort to canvassing will be liable to rejection.

The application, which is received after due date and time, are liable to be rejected.

Bank reserves the right to accept or reject any of the offers, without assigning any reasons, whatsoever thereof.

Basic information

1	Name of the applicant/organization			
	Address of the Registered Office (with phone numbers, fax numbers & e-mail ID)			
	Address of Office (with phone numbers, fax numbers & e-mail ID)			
2	Year of establishment			
3	Type of the organization (whether sole proprietorship, partnership, Private Ltd or Ltd. Co. etc.) (Enclose certified copies of documents as evidence)			
4	Name & qualification of the proprietor/partners/Directors of the organization/Firm a) b) c) d) (Enclose certified copies of documents as evidence)			
5	Details of registration – Whether Partnership firm, company, etc. Name of Registering Authority, Date and Registration number. (Enclose certified copies of documents as evidence)			
6	Whether registered with Government/Semi-Government/Municipal authorities of any other Public organization and if so, in which class and since when? (Enclose certified copies of documents as evidence)			
7	Details of registration with 1 CPWD/PWD /Banks (Enclose certified copies of documents as evidence)	Year of Reg.	Class	Valid upto
7A	Number of years of experience in the field and details of work in any other field			

Furnishing of Bank's Flats (52 NO) at Himalaya Enclave Vrindavan Yojna Lucknow U.P.

8	Address of Contractor's Service office through which the proposed work of the Bank will be handled and service call will be attended with name and designation of professional in charge.	
9	Yearly turnover of the organization during last 3 years (year-wise) and furnish audited balance sheet and Profit & Loss a/c (audited) for the last 3 years.	
10	Name and address of Bankers (Valid Solvency certificate of Rs. 25.00 lacs or above to be enclosed for indicating satisfactory financial capacity of the organization. Validity period of the Solvency Certificate shall be 12 (twelve) months from the date of issue of certificate by the Bank.	
11	PAN Number-(mandatory)	
12	Details of registration for payment of service tax/GSTIN No. (mandatory)	
13	Detailed description and value of works done (Proforma 1) and works on hand (Proforma 2)	
14	Details of Key Personnel Permanently employed (Proforma 3)	
15	Other infrastructural information to be used/referred for this project (Proforma 4)	
16	Furnish the names of –3- responsible persons along with their designation. Address, tel. No. etc. for whose organisation, you have completed the above mentioned jobs and who will be in a position to certify about the performance of your organization.	
17	Whether any Civil Suit/litigation arisen in contracts executed/being executed during the last 10 years. If yes, please furnish the name of the project, employer, nature of work, contract value, work order and brief details of litigation. Give name of court, place, and status of pending litigation.	Attach a separate sheet, if required.
18	Information relating to whether any litigation is pending before any Arbitrator for adjudication of any litigation or else any litigation was disposed off during the last ten years by an arbitrator. If so, the details of such litigation are required to be submitted.	

Proforma -1

a) LIST OF PROJECTS EXECUTED BY THE ORGANISATION DURING THE LAST 7 YEARS COSTING AS PER THE TECHNICAL CRITERIA MENTIONED ABOVE.

S. no.	Name of Client for work /project with address.	Name & full postal address of the owner. Specify whether Govt. undertaking along with name, address and contact numbers of -2- persons (Engineers & top officials of the organisation)	Contract amount (Rs) (for consultancy work only) with copy of work order and completion certificate from project incharge).	Starting date of Project	Date of completion of Project	Any other relevant information. Actual amount of project. If increased, give reasons.	Enclose clients certificate for satisfactory completion Date and No. Of Completion Certificate	No of Floors of building and Remarks
1	2	3	4	5	6	7	8	9

Notes:

- Information has to be filled up specifically in this format. Please do not write remark "As indicated in Brochure".
- For certificates, the issuing authority shall not be less than an Engineer /Department In charge.

Proforma – 2**LIST OF IMPORTANT WORKS IN HAND COSTING AS PER TECHNICAL CRITERIA MENTIONED ABOVE.**

Sr. No.	Name of work/project with address.	Name & full postal address of the owner. Specify whether Govt. under taking along with name, address and contact nos. of –2- persons (Engineers or top officials of the organization)	Contract Amount with copy of Work Order from project incharge.	Stipulated time of completion (Years)	Present status of the project	Any other relevant information.
1	2	3	4	5	6	7

Notes:-

1. Information has to be filled up specifically in this format. Please do not write remark "As indicated in Brochure".

Sign. & seal of the applicant

Proforma-3

S. No.	Particulars	Name and Designation	Age	Qualification	Experience	Nature of works handled	Name of the Projects handled costing as per criteria above	Date from which employed in your organization	Indicate details of experience for similar projects
1.	Civil Engineer								
2.	Electrical Engineer								
3.	Mechanical Engineer								
4.	Supervisor								
5.	Others								

Proforma-4

List of Major office Equipment/ infrastructure in possession of the firm

S.No.	Name of office equipment	No.	Utilization	Any other information if any
1				
2				
3				
4				
5				
6				

Date and Place

Sign. & seal of the applicant

LIST OF DRAWINGS

S. NO.	DRAWING NUMBER	DRAWING TITLE
1	BOB/ 2BHK /01	FLOOR PLAN
2	BOB/ 2BHK/02	REFLECTED CEILING PLAN
3	BOB/ 2BHK/03	WARDROBE DETAIL
4	BOB/ 2BHK/04	KITCHEN DETAIL
5	BOB/ 3BHK /01	FLOOR PLAN
6	BOB/ 3BHK/02	REFLECTED CEILING PLAN
7	BOB/ 3BHK/03	WARDROBE DETAIL
8	BOB/ 3BHK/04	KITCHEN DETAIL

LETTER OF SUBMISSION FROM CONTRACTOR

To,
The General Manager
Bank of Baroda,
Zonal office,
Lucknow Zone,
Lucknow.

Sub. : Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.

Dear Sir,

We refer to the tender invited by you for the execution of above mentioned work. Having visited the Site and examined the Drawings, Conditions of Contract, technical specifications and Bill of Quantities. We offer to carry out and complete the whole of the work in conformity with Specification included in this Tender Documents.

We undertake to complete and deliver the field test, MTC (material test certificate from company), laboratory tests & reports within the time stated in the Appendix hereto.

We agree to keep the offer open for a period of 120 days from the date fixed for receiving the same. We understand that you are not bound to accept the lowest or any tender you may receive. We send your herewith tender duly filled and hereby agree to pay all charges of whatever nature connected with preparation, stamping and execution of the said contract. We agree not to employ 'Sub-Contractors' as per tender condition. Dated this ____ day of ____ 20__

Signature

(In the capacity Partner
/ Proprietor / Director)

Duly authorised to sign tenders for and on behalf of
(IN BLOCK CAPITALS)

Witness:

Signature _____
Name _____
Occupation _____

Address of _____
Tenderer _____

Names of the Partners of the
Firm or Directors of Contractors Company

Name(s) of the Bank(s) in which the Tenderer maintains an Account(s)

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1. NOTICE INVITING TENDER

To,
M/s. _____

Name of Work : -Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.

EMPLOYER: M/S BANK OF BARODA.

Sealed tenders are invited from reputed short listed contractors on behalf of our Employers, for the said above job
Furnishing of Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow, Uttar Pradesh.

1.1. Sealed tender - envelopes should be addressed to **The General Manager, Bank of Baroda, Zonal office, Lucknow Zone, V-23, Vibhuti Khand, Gomti Nagar Lucknow.** & should be super scribed "Tender for

Construction of "Furnishing of Bank's Flats (52 Flats located from 4th to 10th floor of two different blocks) at **Himalaya Enclave Vrindavan Yojna Lucknow**" and should be sent to the office of The General Manager, Bank of Baroda, Zonal office, **V-23, Vibhuti Khand, and Gomti Nagar Lucknow.**

1.2. Tender documents consisting specifications, General Conditions, Bill of Quantities and Architectural drawings could be **downloaded from bank's website (www.bankofbaroda.co.in/tenders.asp)** free of cost. The tender documents shall be submitted in sealed envelopes duly super scribed as 'Technical & Price Bid' for "Tender forFurnishing of Bank's Flats (52 No) at Himalaya Enclave Vrindavan Yojna Lucknow for Bank of Baroda" **EMD of Rs.1,00,000/- (Rupees One Lac only)** in form of DD in favour of Bank of Baroda payable at Lucknow should be kept in separate envelope. Tender document (to be downloaded from bank's website).

1.3. ***Tender submitted without EMD will be rejected.***

Kindly note for firms registered with MSME under the NSIC scheme as is the notification from Government of India are applicable for Waiver of EMD and Tender Document cost.

Micro & Small Enterprises (MSEs) registered with National Small Industries Corporation (NSIC) and having single point registration are exempt from payment of EMD & Tender document fee to the extent of Monetary Limit stated in their Registration Certificate. In case the bid value exceeds the monetary limit, the bidder shall furnish EMD & tender cost for the difference. Such MSEs should also produce documentary evidence showing that the firm is registered with NSIC for the work tendered for. The bidder must submit certified copy of valid NSIC Registration Certificate/ Renewal Certificate. Photocopy of application for registration or for Renewal of NSIC will not acceptable. ***Such bidder, if Successful they have to submit security deposits (including ISD and EMD amount at the time of award of work.***

1.4. ***Tender should be dropped in Tender Box kept at 3rd Floor, Baroda House, V-23, Vibhuti Khand, Gomti Nagar, and Lucknow, before due date and time.***

1.5. The Tenderer must obtain for himself on his own responsibility and at his own expenses all the information that may be necessary for the purpose of filling of this tender and before entering into a contract for execution of the same must scrutinize the drawings and inspect the site of work and acquaint himself with all local conditions & matter pertaining thereto.

1.6. Conditional Tenders will be rejected.

1.7. Each page of the tender documents is required to be signed by the person/duly authorized persons submitting the tender in token of his/their having acquainted himself/themselves with the general conditions etc. as laid down. Any tender with any of the documents not so endorsed may be rejected.

1.8. The tender forms must be filled in English and all entries must be made by hand and written in ink. If any of the documents is missing or unsigned, the tender shall be considered invalid.

1.9. All erasures and alterations made while filling the tender must be attested by the initials of the tendered. Over writing of figures is not permitted. Failure to comply with either in any change in rates or conditions after submitting of the tender will not be entertained.

1.90 RATES:

The contractors should quote in figures as well as in words the rate and amount tendered by them. The amount for each item should be worked out and the requisite totals given.

Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates written in figures and words. If on check there are differences between the rates quoted by the Contractor in words and in figures or in the amount worked out by him, the following procedure shall be followed for comparative evaluation of BOQ for finalization of L-1 for awarding work:

- A. *When there is a difference between the rates in figures and in words, whichever corresponds to the amounts worked out by the contractor, shall be taken as correct.*
- B. *When the amount of an item is not worked out by the contractor or it does not correspond with the rate written either in figures or in words, then the rate quoted by the contractor in words shall be taken as correct.*
- C. *When the rate quoted by the contractor in figures and in words tallies but the amount is not worked out correctly, the rate quoted by the contractor shall be taken as correct and not the amount.*
- D. *When the rate is not quoted by contractor for any item, then maximum rate quoted by others contractor for that item shall be taken for evaluation and lowest rate quoted by other contractor for that item will be taken for award of work.*

Rates quoted shall cover the provision of site laboratory for routine test as required by Engineer - in – Charge.

1.91 Rates quoted shall include that Contractor shall remove all stores, working yards, labour hutments after completion of work / instructed by Employer from time to time or before final payment. He will also clean all rubbish, debris, leveling filling if any so as to leave site in clean and tidy conditions for other works / contractors as directed by Engineer-in-charge.

Rates quoted shall include provision of all scaffolding, hoists, tackles and other planks, shuttering profiles and all other equipment generally required for proper execution of the work. Rates quoted shall also includes to facilitate and arrange to fix Tang Bar/Security Gates etc for currency Chest.(Bank will provide at their cost Tang Bars, security Gates etc. to Contractor.)

Rates shall be inclusive of all taxes, professional tax, royalties or any other taxes or levies/any cess etc. payable by the contractor and the employer will not entertain any claim whatsoever in this respect. The Contractor will pay the Labour Cess against each Running Account Bill as per applicable Laws of Government and would submit the proof of deposit to the bank. However GST as applicable (as per Govt laws) shall be paid extra.

1.92 Trade tax, VAT, turnover tax, or any other tax on material in respect of this contract shall be payable by the contractor and Employer will pay only GST applicable to this contract. In the event of non-payment /defaulting in payment of any octroi, royalty, cess, Trade tax, custom, excise or any other levy / tax including labour dues and P.F. etc. by the contractor, the Employer reserves the right to withhold the dues /payments and make payments to the Local / State /Central Govt. Authorities or to labourers as may be applicable.

1.93 The rates for all items of work shall, unless clearly specified otherwise, include cost of all labour, materials and other inputs involved in the execution of the items.

1.94 The quoted rates shall be for all heights, lifts, leads and depth except where otherwise specified in the item of work.

1.95 The rates quoted by the contractor shall cover the cost of all loading, transporting to site, unloading, storing under covers as required, assembling or joining the several parts together as necessary and incorporating or fixing materials in the work including all preparatory work or whatsoever description as may be required and of closing, preparing, loading, returning empty cases of containers to the place of issue

1.96 The contractor is bound by the rates he quotes for the various items irrespective of quantities mentioned in the tender. No extra amount will be paid due to variation; alteration, omissions, modifications of the quantities put to tender, unless it has been specifically agreed by Owner / Architect.

1.97 The rates quoted shall be inclusive of establishing the labour camps outside the premises.

1.98 The Contractor shall construct, operate and maintain crèche for labourer's children and Sulabh Shauchalaya for laborers at his own risk and cost. Nothing extra shall be payable on this account.

The owner reserves the right to reduce or increase the scope of work and to order for any item or group of work or split the work between 2 or more sub-contractors, if necessary. Such step shall not constitute a breach of contract, and nothing extra shall be payable on this account.

1.10. **Earnest money deposit (EMD):-**

1.11.1. Tenderer shall deposit an amount of **Rs.1,00,000/- (Rupees One Lac only)** in the form of Bank Demand Draft payable at Lucknow drawn on any Schedule Bank, in favour of BANK OF BARODA along with the Technical papers in separate envelope along with Tender. OR Tenderer shall submit the certificate of their companies' NSIC/MSME registration for exemption of EMD.

1.11.2. **Initial Security Deposit:-**

The successful Tenderer to whom the contract is awarded shall deposit as Initial Security Deposit bank demand draft/FDR a sum to make up 2% of the value of accepted tender after the appropriation of the Earnest Money deposited by him along with Tender. The successful Tenderer shall pay Initial Security Deposit within 15 days after receiving the letter of acceptance of his Tender.

1.11.3. **Retention Money:-**

Apart from the Initial Security Deposit to be made by the contractors as aforesaid, the Retention Money shall be deducted from Progressive Running Account Bills at 8% of the gross value of the work done and claimed in each Running Account bill provided that the total Security Deposit i.e. the Initial Security Deposit amount + the Retention amount shall both together not exceed 5% of the Contract price as determined after considering all variations as approved. FDR in name of Bank of Baroda, Lucknow of equivalent amount may be deposited in lieu of ISD & Retention Money by the Contractor/Bidder.

1.12. Within ten days of the receipt of intimation from the Architect/ EMPLOYER of the acceptance of tender, the successful Tenderer shall be bound to implement the contract by signing agreement in accordance with the Terms & Conditions of the contract attached therewith, on the written acceptance by the employer and the person so tendering, whether such formal contract is subsequently entered into/or not.

1.13. All the compensation of other sums of money payable by the contractor to the Employers under the terms of this contract may be deducted from the Security Deposit or from any sums that may become due to the contractor on any account whatsoever in the event of the Security Deposit being reduced by reason of any such deduction; the contractor shall within 15 days of being asked to do so make good by Demand Draft any such sums which may have been deducted from the security deposit.

1.14. Unless otherwise agreed or stipulated in this tender, Employers are not concerned with any rise or fall in the prices of any materials or labour. The rates quoted shall include all costs, allowances, excise, duties, sales tax, central taxes, or any other taxes, octroi or any other charges including any enhanced labour rates etc. which may be enacted from time to time by the State and/or the Central Government and shall remain valid till Virtual Completion of the work. Under no circumstances shall Employer be held responsible for compensation or loss to the contractor due to any increase in the cost of labour and/or material etc. Bank will pay only GST over the amount as per current law applicable.

1.15. The tenderer should thoroughly study works, conditions of contract, relevant specifications and rates quoted should cover cost of executing the items as per the relevant specification.

1.16. The tender drawings have been included in the tender document for general guidance of the contractor for basic reference and evaluation at our office. Detailed working drawings, details of construction features etc. shall be supplied from time to time for execution of works, which shall be deemed to be with provision of contract and scope of work.

1.17. The tender shall remain valid for acceptance for a period of 120 days from date of opening the tender.

1.18. **Escalation for Material & Labour-** Rates and amount quoted will be firm till the handing over of completed/constructed building/site after completion of work. The decision of the Bank in this regard shall be final and binding on contractor. Contractor will not raise this issue on any forum viz Arbitration, Court, etc

1.19. Employers do not bind themselves to accept the lowest or any tender and reserve to themselves the right to accept or reject any or all tenders, either in whole or in part, without assigning any reasons whatsoever for doing so.

1.20. Tender document in which tender is submitted by a Tenderer shall become the property of the Employer and the Employer shall have no obligation to return the same to the Tenderer.

1.21. *Tenders not giving the full particulars as mentioned above or as called for in the special Conditions or not complying with any of the conditions set forth above or therein are liable to summary rejection. For any clarification of technical details you may contact Ar. Ajay Gupta, M/s Gupta & Associates Mb 9935330077. Regarding location and inspection of the project site the Tenderer / Bidder may contact Mr. Md. Athar Ali (Chief Manager), Zonal office, Lucknow (Tel-0522-6677-741/7660).*

1. 22. **Site address is:** Bank's Flats at Himalaya Enclave, Vrindavan Yojna ,Lucknow.

1.23. INSTRUCTIONS TO TENDERER

Tenders must be submitted in sealed envelopes marked "**Tender For Furnishing of Bank's Flats (52 No) at Himalaya Enclave Vrindavan Yojna Lucknow-, Uttar Pradesh.**" and addressed to "**The General Manager, Zonal Office, Lucknow Zone, V-23,Vibhuti Khand, Gomti Nagar, Lucknow**" and be submitted in the Zonal Office at the address above mentioned at or **before 1500hrs on Date 17.06.2019 .**

The tenders will be opened at 1530 hrs on the same day in the presence of the available Tenderer or their authorised representatives.

2.1. Any tender delivered or sent otherwise will be at the risk of the Tenderer.

2.2. The Employer reserves the right to postpone the date for presentation of tenders and will give timely notice of any such postponement to the prospective Tender.

2.3. The following tenders are liable to rejection:-

- a) Tender forms containing "over written" or "erased" rate or rates and amount shown in "figures and "words" in English.
 - b) Tender quoting rates on units different from those prescribed in the schedules.
 - c) Tender containing clerical or arithmetical mistakes.
 - d) Tender which omits a quotation on one or more of the items in the schedule.
 - e) Tender which is incomplete, obscure or irregular.
 - f) Tender with rates which are obviously unbalanced.
 - g) Tender in respect of which any request from the Tenderer is received in of additions, alterations, modifications, corrections, etc., of the term conditions or rates after opening of tenders.
 - h) Tender in respect of which canvassing in any form is resorted to by the Tenderer
 - i) Tender received after the time and date specified above even if due to pay or other Delays.
- 2.4. If the Tenderer deliberately gives wrong information in his tender or circumstances for the acceptance of his tender the Employer reserves the right to reject such tender at any stage.

2.5. If a Tenderer seeks to clarify his quotations or rates, this should only be done in a separate covering letter. No material modifications to the specifications, item descriptions, contract clause etc., will, however, be entertained. Other clarifications may be considered. The contents of a covering letter sent along with the tender will be considered as part of the quotation. If any of these conditions admitted for consideration has a financial bearing on the cost quoted, the additional cost arising out of this condition will be added for comparative evaluation of tenders.

2.6. By submitting a tender for the work, a Tenderer will be deemed to have satisfied himself by actual inspection of the site and locality of the work, that the rates quoted by him in the tender will be adequate to complete such work according to the specifications and conditions attached thereto and he has taken into account all conditions and difficulties that may be encountered during its progress and to have quoted labour and material rates, which shall include cost of materials with taxes, Octroi, and other duties, lead, lift, loading and unloading freight for materials, and all other charges including the furnishing of all plant, equipment, tools, scaffolding and other facilities and services necessary or proper for the completion and maintenance of the work, except such as may be otherwise expressly provided in the contract documents for the completion and maintenance of the work to the entire satisfaction of the Architect. The TDS amount on prevailing rate and GST TDS etc. shall be deducted from Contractor's Running Account / Final bills and paid to the Government. Necessary Certificates shall be issued to the Tenderer by the Bank.

2.7. The successful Tenderer shall make his own arrangements for all materials except as specified in the contract if any.

2.8. The quantities shown if any in the attached schedule are given as a guide and are approximate only and are subject to variation according to the needs of the Employer. The Employer accepts no liability for their accuracy. The Employer does not guarantee work under each item of the schedule.

2.9. Each tender shall be signed by the Tenderer with his usual signature. Tender by partnership or Hindu joint family firm may be signed in the firm's name by one of the partners or the Karta or Manager as the case may be or any other duly authorized representative followed by the name and designation of the persons so signing. A tested copy of the Partnership Deed must accompany the tender of any Partnership firm. Tenders by a Company shall be signed with the name of the Company by a person authorized in this behalf and a Power of Attorney or other satisfactory proof showing that the person signing the tender document on behalf of the Company is duly authorized to do so, shall accompany the tender. The Employer will not be bound by any Power of Attorney granted by the Tenderer contract. It may, however recognize such Power of Attorney and changes after obtaining proper legal advice, the cost of which may be chargeable to the Contractor.

2.9.1. With their quotations the Tenderer shall sign all schedules, specifications, special conditions, etc, in token of acceptance thereof. The signature on the tender schedule alone shall also be deemed to be taken as acceptance of all these.

2.9.2. Signature of the Tenderer shall be attested by the signature and address in English of two responsible individuals who shall be persons of status, and their address, names, occupations shall be stated below their signatures.

2.9.3. deleted

2.10. Tenderer must also submit with the tender, Copies of testimony also with registration, their experience, and satisfy the Architect / Bank regarding the following points if and when called upon to do so:-

2.10.1. His position as an independent contractor or as the properly accredited of a responsible firm, in proof of which he must produce the requisite registered Power of Attorney and the expressed authority from the same firm to accept as its agent.

2.10.2. His ability, either as Principal or Agent to undertake and carry out the satisfactorily vouched for either by a responsible firm or an official.

2.10.3. His ability to supervise his work personally, or in the event of ill-health authorized absence there from, to employ a competent and responsible agent who is specially named and approved beforehand.

2.11. If a Tenderer expires after the submission of his tender or after the acceptance of his tender the Employer may deem such tender as cancelled. If a partner of a firm expires after the submission of their tender, the Employer may deem such tender as cancelled the firm retains its character.

2.12. If the Tenderer has a relative employed in any capacity in Bank, he shall inform the authority calling for tenders of the fact when submitting his tender, failing which his contract may be rescinded, if the fact subsequently comes to, he shall be liable to make good to the Employer any loss or damage from such cancellation to the like extent provided in the case of cancellation under clause of General Conditions of Contract.

2.13. No contract work, however petty, may be carried out except under or in accordance with a duly executed agreement or on a special written authority from authorized officer of the Employer.

2.14. No agreement is valid unless signed by the Contractor or his duly authorized agent and by a competent person on behalf of the Employer.

2.15. Details of drawings will be supplied with the Tender documents for the work may be seen in the office of Architect. / Bank during office hours.

2.16. The Form of Agreement, Form of Tender, Invitation to Tender, Instruction to Tender, General Conditions of Contract, Special Conditions of Contract, Specifications, Drawings, Time Schedule and the rates and amounts accepted against the items of the Tender Schedule together with the Tender covering letter, and all correspondence entered into between the Employer and the Tenderer prior to the issue of the Letter of intent and the Letter of Intent awarding the work shall form the contract.

2.17. If there is any conflict between any of the provisions in the Special Conditions and those in any of the other documents referred, the provisions in the Special Conditions shall prevail.

2.18. If there be any difference between the description in the Specification, drawings and the works items in the Tender Schedule, the order of precedence shall be as under: a) B.O.Q. b) Tender Drawings c) Technical Specifications. Relevant I S Code/ NBC shall be followed wherever not specified/covered in this tender.

2.19.

2.19.1. Acceptance of the tender will be intimated to the successful Tenderer through a letter of acceptance. The Contractor shall then be required to execute an Agreement within the time specified in the letter acceptance. In the event of failure on the part of the Contractor to sign the Agreement within the specified time, the amount of Earnest Money shall be forfeited and the acceptance of his tender shall be considered as withdrawn.

2.19.2. The forfeiture of Earnest Money is to be considered as covering all losses, and liquidated damages notwithstanding any other provisions envisaged for losses, or penalties implied in the provisions of the contract.

2. MODEL ARTICLES OF AGREEMENT

Articles of Agreement made this -----day between Bank of Baroda (hereinafter called 'The Employer') of the one part and M/s----- (hereinafter called 'The Contractor') of the other part.

1.1 Whereas The Employer' desires to engage one contracting agency for Civil and Sanitary works for construction, as per Drawings /Designs, BOQ etc.

1.2 The term 'Architect' in the said conditions shall mean the said Gupta & Associates, Lucknow and shall include their successors and assignees or in the event of its being wound up/dissolved/liquidated or ceasing to be the architect for the purpose by the employer, such other person as shall be nominated for that purpose by the Employer, not being a person to whom the contractor shall object for reasons considered to be sufficient by the Arbitrator, mentioned in the said conditions provided always that no person subsequently appointed to be entitled to disregard or overrule any previous decisions or approvals or directions given or expressed by the Architect for the time being.

1.3 In response to the tenders invited by Employer / Architect, the Contractor have inspected the site and surroundings of the works specified in the tender documents and have before accepting the Contract, satisfied themselves by careful examination about the nature of the work and nature of the site and local conditions, quantities nature and magnitude of work, the availability of labour and material necessary for the execution of work, the means of access to work site, the supply of power and water thereto and the accommodation they may require and have made local and independent enquiries and obtained complete information as to the matters and things referred to or implied in the Contract or having any connection therewith and have considered the nature and extent of all probable and possible situations, delays, hindrances or interferences to or with the execution and completion of work to be carried out under the Contract being awarded hereunder and have examined and considered all other matters, conditions and things and probable and possible contingencies thereto affecting the execution and completion of work and which might have influenced them in accepting the Contract.

1.4 The following documents annexed hereto shall form the integral part of this agreement as if these were fully incorporated herein and this Agreement together with all its Annexure are hereinafter referred to as the Contract.

1.4.1 Executed Tender copy

1.4.2 Initial Security Deposit of 2% of Contract Amount including EMD of Rs.1,00,000/-

1.4.3 Performance bank guarantee of 5% of Contract Amount

1.4.4 Minutes of Meeting dated ____ bearing no _____ 1.4.5 Letter of Intent no.

1.5 The Employer has accepted the offer of the Contractor and the Contractor has agreed to execute the said works, subject to the terms and conditions contained herein and those referred in para 1.5 above for the provision and the execution of the works mentioned in the Contract to an amount of Rs _____ (inclusive of all Taxes)

NOW THESE PRESENTS WITNESSETH AND IS HEREBY AGREED AND DECLARED AS FOLLOWS

1.6 The Contractors shall provide, execute and complete all the works mentioned in the Contract and shall do and perform all other acts and things mentioned or described in the Contract or which are to be implied there from or may be reasonably necessary for the completion of the said works and the times and in the manner and subject to the terms and conditions or stipulations mentioned in the Contract. Rates are firm up to handing over of completed building from date of commencement of work. If any delay in completion of works due to any reason then no escalation will be paid by Bank on work done and measured.

1.7 It has been understood by the parties hereto that the Employer will have right to make reasonable changes in the drawings and designs during the progress of the works without prejudice to the Contract. Notwithstanding anything to the contrary contained in any of the Annexure hereto the Contractors shall commence the work as per point of letter of intent dated and shall complete the same on or before 06 months and the time shall be the essence of the Contract. In consideration of the due provision, execution and completion of all the works, in terms of the Contract the Employer does hereby agree with the Contractors that the Employer will pay to the Contractors the respective amounts for the work actually done by them and approved by the Employer. Such payments shall be made at such time and in such a manner as provided for in the Contract.

1.8.1 The Contractors do hereby agree to pay such sums as may be due to the Employer for the service rendered or material supplied by the Employer to the Contractors as set out in the Contract.

1.8.2 The contractors do hereby agree that the amount of liquidated damages specified conditions of contract/special conditions of contract represents a genuine and fair estimate of the loss likely to be suffered by the Employer in the event of the works not being completed in time.

1.9 It is specifically and distinctly understood and agreed between the Employer and the Contractors that the Contractors shall have no right, title or interest in the site made available by the Employer for the execution of the work or in the building, structures or works executed on the said site by the Contractors in the goods articles, materials etc brought on the said site (Unless the same specifically belongs to the Contractors) and the Contractors shall not have or deemed to have any lien or charge whatsoever for unpaid bills and it will not be entitled to assume or retain possession or control of the site or structure and the Employer shall have an absolute and unfettered right to take full possession of the site and to remove the Contractors, their servants, agents and materials belonging to the Contractors lying in the site.

1.10 The Contractors and its agent/servants/workers/employees shall be allowed to enter upon the site for execution of the works only for the purpose of executing the contract work and shall not have any claim, right title or interest in the site or the structures erected thereon and shall not enter upon the site of construction for any other purpose without assigning any reason thereof.

In Witness WHEREOF the parties have executed these presents of the day and the year first above written.

Signed and delivered for and on
Behalf of Employer

Signed and delivered for
and on behalf of Contractor

Witnesses

Witnesses

1. _____

1. _____

2. _____

2. _____

3. **FORM OF OFFER - ANNEXURE 1**

To
The General Manager
Bank of Baroda,
Zonal Office, EPU Zone, V-23, Vibhuti Khand, Gomti Nagar, Lucknow.

Subject : Tender For Furnishing of Bank's Flats (52 NO) at Himalaya Enclave Vrindavan Yojna Lucknow Uttar Pradesh.

Sir,

- 2.1. Having visited the site and examined the Drawings, format bank guarantee for bid offer security, form bank guarantee for advance payment, technical specifications for Construction of Regional Office Building, bill of quantities / schedule of rates, for the construction of the above named works, we offer to construct, complete and maintain the whole of the said works in conformity with the said Drawings in this tender Document or such other sum as may be ascertained in accordance with the said Conditions of Contract.
- 2.2. We undertake to complete and deliver all the works comprised in the contract within the time stated in the Appendix and Annexure I here to.
- 2.3. We have independently considered the amount of liquidated damages shown in the Appendix hereto and agree that it represents a fair estimate of the loss likely to be suffered by you in the event of the works not being completed in time.
- 2.4. If our Tender is accepted, we will, when required, obtain the guarantees in approved format from a Bank (to be approved by you) to be jointly and severally bound with us in the sum named in the Appendix hereto for the due performance of the Contract under the terms of a Bond to be approved by you.
- 2.5. We agree to abide by this Tender for the period of three months from the date fixed for receiving the same and it shall remain binding upon us and may be accepted at any time before the expire of the period or any extended period thereof.
- 2.6. Unless and until a formal Agreement is prepared and executed this Tender together with your written Acceptance thereof shall constitute a binding Contract between us.
- 2.7. We agree and that if our Tender is accepted, we are to be jointly and severally responsible for the due performance of the Contract.
- 2.8. We reserve stand that you are not bound to accept the lowest or any tender you may receive, or you may regret on your tender without assuring any terms.

Dated ____ day of _____ 20__

Signature in the capacity of duly authorized to sign tenders for an on behalf of

(IN BLOCK CAPITALS)

WITNESS:

Signature Address of

Tender

Name Occupation

.....

4. APPENDIX TO FORM OF OFFER - ANNEXURE 1

Sr. No.	Description of Work:	Furnishing of Bank's Flats (52 Flats/units) at Himalaya Enclave Vrindavan Yojna Lucknow U.P., -, Uttar Pradesh
1.	Name of Employer	BANK OF BARODA
2.	Time allowed for execution of work	03 Months
3.	Cost of Tender Document	Can be downloaded from bank's website www.bankofbaroda.co.in/tenders.asp . No tender cost is required to be submitted.
4.	Availability of Tender Document on Bank's website	24/05/2019 to 17/06/2019 up to 1500 hrs. to be downloaded from Bank's website free of cost.
4A	Pre-Bid Meeting	12/06/2019 at 03.30PM at Zonal Office, Lucknow. After that no clarification will be entertained.
5.	Last date and time of receipt of Tender Document (in Tender Box kept at 3 rd Floor, Baroda House, Lucknow)	17/06/2019 till 1500 hrs.
6.	Date and time of opening of Tender Documents (Technical)	17/06/2019 at 1530 hrs. at Zonal Office, Bank of Baroda, V-23, Vibhuti Khand, Gomti Nagar, Lucknow-226010
7.	Earnest Money	Rs. 1,00,000/- in the form of DD/BC in favour of Bank of Baroda payable at Lucknow. Companies registered under NSIC/MSME shall be considered for exemption of the same, they must attach their valid registration certificate for the same.
8.	Validity of the Tender	120 days from the date of submission / as may be extended
9.	Retention Money	8% of gross value of work in Running bills to a maximum of Balance Security Deposit.
10.	Period of Commencement	7 days from the date of work order or the date of instruction for taking possession of site, whichever is later.
11.	Amount of liquidated damages for delay.	1 % of the Contract value per week subject to maximum of 10% of contract value.
12.	Defects liability period.	12 months from the date of virtual completion certificate issued by Architect/Bank
13.	Interval of interim bills.	Every 1.0 month/ as per minimum bill amount whichever is later
14.	Minimum Gross Amount of Interim Bill.	Rs. 25 Lakh
15.	Period of certification of interim bills by Architect	15 working days after submission of Bill along with measurement sheets by Contractor
16.	Time within which payment to be made after certificate.	Payment to be released within 20 working days from date of receipt of Architect's certificate. No interest is payable on any delayed payment in any circumstances by Bank whatsoever reason.
17.	Secured Advance against supply of material on site	No advance will be paid

18.	Performance Guarantee (Bank Guarantee - Non Perishable)	Performance Guarantee: 5% of Contract Amount to be submitted as Bank Guarantee/ FDR (in joint name with Bank as the first party) within 07 days of receipt of Letter of Award (valid up to completion period of the contract/extended period if permitted). No extra charge is payable on extension of BG by Bank. This Performance Guarantee shall be refunded within 14 days of the issue of Defect Liability Certificate/Virtual completion Certificate (Taking Over Certificate with a list of Defects).
19.	Escalation for Material & Labour & work	No escalation/PVA is applicable .The Rates will be remain firm till handing over the site/completed building from date of commencement of work.
20.	Release of Total Security Deposit (EMD, ISD & Retention Money) :-	“50% of the Total Security Deposit (EMD,ISD & Retention Money) shall be refunded to the contractor on”: i) Issue of Virtual Completion Certificate by the Architects ii) Contractor’s removal of his materials, equipment, labour force, temporary sheds/ stores etc. from the site, (excepting for a small presence required if any for the Defect Liability Period and approved by the Bank.). The remaining 50% of the amount shall be refunded 14(fourteen) days after the end of defects liability period provided he has satisfactorily carried out all the works and attended to all defects in accordance with the conditions of the contract, including site clearance.
21.	Insurance	CAR Policy (in joint name with Bank as the first party) within 28 days of receipt of Letter of Award (valid up to completion period of the contract/extended period if permitted).Details of Policies is given in annexure. No extra charge is payable on extension of Insurance by Bank.

5. SPECIAL NOTE & CONDITIONS OF CONTRACT – ANNEXURE 2

Name of Work: Furnishing of Bank's Flats (52 NO) at Himalaya Enclave Vrindavan Yojna Lucknow, - , Uttar Pradesh..

EMPLOYER: BANK OF BARODA.

2.9. General:

2.9.1. Address- Himalaya Enclave Vrindavan Yojna Lucknow U.P.

2.9.2. Gupta & Associates is engaged as an architect and PMC.

2.9.3. Brief Scope of Work

1. Furnishing work in Bank's flats like P/F Modular kitchens , wardrobes, Drapery rods etc.

Electric work- P/F electrical fittings like Tube lights, Ceiling Fans, fresh air fans, call bells , Geysers etc.

Any other work not listed above but is part of the tender BOQ

2. The other agencies if appointed for other trade during the progress of work, the contractor shall work in close coordination and co-operation to complete the project under the guidance / instruction of in charge/Architect.

3. Program shall be well coordinated through In charge/Architect for various activities in completing the work on schedule.

2.9.4. The payment shall be made as per actual execution of works.

2.9.5. All works are to be completed in **03 (Three) Months'** time.

2.9.6. All or any extra work involved shall be got approved in writing from the Architect/EMPLOYER before executing the same.

2.9.7. The contracted rate shall be inclusive of all Taxes , Turnover Tax, Works Contract Tax and levies applicable during construction period and completion of the work. Only GST will be paid extra as per prevailing rules.

2.9.8. Contractor shall extend all sorts of help within his purview including scaffolding materials (free of cost) and labourers (chargeable basis) to other agencies working simultaneously in the same project.

2.9.9. The contractor shall at his own cost arrange to obtain temporary electric supply from local electricity board authorities and shall bear all cost (deposit for temporary supply) miscellaneous charges & consumption charges during the construction period and up to the stage of handing over the site, it shall be borne by the contractor. If electricity is available and supplied by Bank ***then it will be charged @ 0.50% on work and shall be recovered from RA Bills.***

2.9.10. Water connection shall be arranged by contractor at his own cost. Consumption charges during the construction and up to the stage of handing over of the site shall be borne by the contractor.. *If it is available and supplied by Bank then @ 0.50% on work shall be recovered from Bill (not valid for this work).*

In the event of necessity of water by tankers, electricity by generators, the same shall be arranged by the contractor at his cost for the purpose of construction and consumption etc. and the same shall not be payable by the EMPLOYER.

2.9.11. Contractor shall at his own cost construct temporary cement and material storage godown, site office and temporary separate bath/WC for Architect's/PMC'S staff and for his site labourers' use at his cost, including demolition and clearance after completion of work. Contractor shall restrict his facilities within the said area.

2.10. **Insurance:** - On commencement for the work.

The contractor shall take out Insurance policy as per Annexure covering entire scope of the works under this contract for the value of work as per contract tender conditions and arrange to keep the policy valid till the virtual completion and defect liability period is over. For electric work EAR Policy be considered.

The contractor shall take out and submit to the Architect and EMPLOYER, a suitable insurance policy against third party risks. The limit of liability of this insurance shall be as per terms given in relevant annexure in respect of any one accident or series of accidents arising out of one even or **Rs. 35 Lakh** in respect of any persons or **Rs.15 Lakh** in respect of any passer-by (The policy shall be kept valid, till completion/handing over to the Employers whichever is later). **Bank will not pay any sum for renewal of Insurance on account of extension of completion time in any circumstances.**

The contractor shall take out and submit to Employer a suitable Insurance Policy against Workmen's compensation / Janata Policy as per requirements. The policy shall be kept valid till final completion of work.

Necessary PF & ESI contribution of contractor's labours will have to be paid by contractor as per statutory authority's regulations and EMPLOYER shall be absolved of all the risk. (Also refer clause no.23 of GCC)

In Respect of Damage to Person and Property:-

From Commencement to Completion, the Contractor shall be responsible for all injury to persons, animal or things and for all structural and decorative damage to property which may arise from operation or neglect of himself or any subcontractor or of any of his or a sub-contractor's employee whether such injury or damage may arise from carelessness, accident or any other cause whether in any way connected with the carrying out of this contract. This clause shall be held to include inter-alia any damage to building, whether immediately adjacent or otherwise, any damages to roads, streets, footpaths, bridges, or ways as well as all damage to the buildings and works forming the subject of this contract by first or other inclemency weather. The contractor shall indemnify the Employer and hold him harmless in respect of all and

Any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of any award of compensation or damages consequent upon such claim.

The Contractor shall reinstate all damage of every spot mentioned in this clause so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

Against third party risks:-

On commencement of the work, the contractor shall take out and submit to the Employers a suitable insurance policy against third party risks. The limits of liability of this insurance shall be as follows:

Rs. 15 Lakhs in respect of any one accident or series of accidents arising out of one event. Contractor shall take out third party insurance for 3 no. of such accidents and repetition of the same after three occurrence including visitors like Local Authority, Vendors etc.

CONTRACTOR'S LIABILITY AND INSURANCE SUMMARY

Sr. No	Nature and Scope of Risk	Value of Insurance	Validity Period of Insurance	Name of the Insurer	Insurance Policy No. and
1.	Loss of damage to works or any part thereof and all materials at site from any cause whatsoever. CAR Policy	100 % of Contract Amount	The policy shall be valid till completion of defect Liability period.	The policy shall be in the joint names of the Employer /Bank	

2.	Damage, Loss or Injury to any Property of the Employer or Consultant to any person including the Employer or Consultant for his Agents and Servants.	Rs. 35.00 Lakhs per claim upto 3 claims	- DO -	- DO -	
3.	Claims under the Workmen's Compensation Act, 1923	As per Govt. Rules	- DO -	- DO -	
4.	Third party insurance	Rs.15 Lakhs in respect of any one accident or series of accidents arising out of one event. Contractor shall take out third party insurance for 3 no. of such accidents and repetition of the same after three occurrence including visitors like Local Authority, Vendors etc.	- DO -	- DO -	

2.11. The defect liability period shall be as mentioned in appendix to condition of contract, annexed to this document

2.12. *Contractor shall appoint as approved by the Architect and maintain a full time, qualified and experienced Civil Engineer(minimum experience 2yrs.) or Civil Diploma Engineer(minimum experience 4yrs.) also having exposure to electric works" on site of works*

2.13. EMPLOYER and Architect have got right to appoint separate contracting agencies for (1) Civil Work, (2) Plumbing, Water supply, Sanitary and drainage works.

2.14. In the event of work being split between the agencies like Civil/Plumbing/ Works etc. The Contractor for civil work shall provide all co-operation, liaison / coordination and relevant scaffolding etc. to the other sub agencies appointed like lift, installation, by the Employers and the rate of the civil contractor shall be covered to be inclusive of such co-ordination, assistance etc. to be provided to the other agencies.

2.15. Total security deposit

The total Security Deposit shall comprise

- Earnest Money Deposit.
- Initial Security Deposit.
- Retention Money

Earnest money deposit (EMD):-

Tenderer shall deposit an amount of **Rs.1,00,000 (One Lac Only)** in the form of Bank Demand Draft drawn on any nationalised Bank , in favour of M/S BANK OF BARODA along with the Technical bid. No interest on Earnest Money Deposited by the tenderer shall be paid. Tenders submitted without Earnest Money Deposit along with the technical bid shall not be considered. The EMD of the unsuccessful Tenderer will be refunded within a reasonable period of time after the decision to award the work is taken. The EMD shall stand absolutely forfeited if the tenderer revokes his tender at any time during the period when he is required to keep his tender open for acceptance by the Employer, or if, the tender is accepted, the Contractor fails to pay the security deposit as stipulated/or if he fails to commence the work within stipulated time.

Initial Security Deposit

The successful tenderer to whom the contract is awarded shall deposit as Initial Security Deposit by bank demand draft/FDR a sum to make up 2% of the value of accepted tender after the appropriation of the Earnest Money deposited by him. The successful Tenderer shall pay Initial Security Deposit within **07 days** after receiving the letter of acceptance of his Tender. The Security deposit, either in whole or in part thereof, shall be forfeited in the event of the Contractor's failure to observe any terms of this Contract/ or noncompliance with the conditions of the Contract.

Retention Money

Apart from the Initial Security Deposit to be made by the contractors as aforesaid, the Retention Money shall be deducted from Progressive Running Account Bills at 8% of the gross value of the work done and claimed in each Running Account bill. Provided that the total Security Deposit i.e. the Initial Security Deposit amount + the Retention amount shall both together not exceed 5% of the Contract price as determined after considering all variations as approved. On Virtual Completion of the job and on the contractors submitting to the PMC, the as- built drawings, the PMC shall declare the job to be virtually complete, endorsed by the Project Architects and accepted by the Employer and upon this an amount equivalent to 50% of the total security deposit will be refunded to the contractors and balance shall be retained by the Employers till the end of the Defects Liability Period and the contractors shall have option to have the balance Retention Money replaced by Bank Guarantee which shall be valid till the end of Defects Liability Period and the same shall be released only upon successful completion of the Defects Liability Period and on finalizing the Final bill. Performance Bank Guarantee of 5% amount should be valid till completion of project with 30 days grace Period. Any extension required due to delay in completion, contractor will bear all expenses and Bank will not entertain any claim in this regard. If the Contractors do not carry out the rectification work during the Defects Liability Period, the Employer shall have the right to get such defective work rectified after giving due notice in writing to the Contractors and recover the cost of repairs from the money so retained.

2.16. Value of all interim bills shall be **minimum Rs. 25 Lakhs (Rs. Twenty five Lakhs)**. payment to be released within 20 working days on date of receipt of Architect's certificate.

2.17. The Architect/PMC shall have power to withhold any certificate, if the works or any parts thereof are not carried out to the satisfaction. The Architect/PMC may revise any certificate; make any correction in any previous certificates, which have been issued by him.

2.18. All respective contract rates under various works include rents, deposits, premiums and other cost of transport, hiring loading and unloading, of all material including all type of taxes **excluding GST**, testing charges, Octroi charges, wastages and damages etc and the same shall be borne by the contractors only.

2.19. The contractor shall appoint/retain at their own cost, licensed plumbers who shall work out and prepare and submit to Architect through PMC if any necessary shop drawing details for all plumbing, sanitation, drainage, works and shall take approval of the architect/PMC before execution of all such works (not valid for this work).

2.20. The Employers reserve their right of adding, altering or deleting any items form the scope of the contractor works for which no compensation of whatsoever type will be paid to the contractor. This shall also include the profits and over heads or any other claims by the contractors.

2.21. Time shall be the essence of the contract and the decision of the architect/PMC and/or the employer in the matter of date of start, suspension and completion of the work shall be final and binding upon the contractor.

2.22. Security/Watchman:-The Contractor shall maintain at his cost /watchman/security system or watch and ward of materials/property works and shall not allow any unauthorized persons to encounter the premises/building and failure of the same, the contractor shall be held liable for all costs & damages.

2.23. *Contractor will obtain NOC for electric installation (Viz-Transformer, DG Set, etc), required electric load sanction for Building from Govt. Authorities, Vidyut Suraksha Mahanidesalya, etc. Contractor will also obtain Fire/statutory NOC from Govt Fire Deptt. , etc. The statuary fee/receipt will be reimbursed by Bank to Contractor on production of Govt receipt copies. The other expenditure, if any, on part of liasoning etc with Govt Authorities shall be borne by Contractor them self (not valid for this work).*

2.24. Contractor will also assist Architect in obtaining Pre/Post Approvals and Completion Certificate from local Authorities/societies.

2.25. Addenda

Addenda to the tender document may be issued if required to clarify documents or to reflect modifications to the design or contract terms.

Each addendum issued by the Architect will be distributed to the bidders who have been issued the tender documents for bidding. Each bidder shall submit the same along with his tender. All addenda issued by the Architects shall become part of Tender Document.

3. **Technical audit-** The work is liable to be technically audited by the chief technical examiner of the Central Vigilance Commission, GOI, from time to time. Any defects, improvements or testing etc, pointed out by the CTEO, CVC, should be carried out by the contractor at his/their own cost and any deduction suggested by the CTEO shall be effected. The employer shall have right to cause technical examination and audit of works and the final bills of the contractor/s including all the supporting vouchers, abstract ,etc to be made at the time of payment of the final bill. If as result of this examination or otherwise any sum is found to have been overpaid in respect of any work done by contractor under the contract the contractor shall liable to return the amount of over payment and it will be due to him/them and in any other manner legally permissible and it is found that contractor was paid less than what was due to him/them under the contract in respect of any work, executed by him/them under the contract, the amount of such under payment shall be duly paid by employer.

GENERAL CONDITIONS OF CONTRACT – ANNEXURE 3

Name of Work: Furnishing of Bank's Flats (52 NO) at Himalaya Enclave Vrindavan Yojna Lucknow U.P.,
-, Uttar Pradesh.

Employer: M/s BANK OF BARODA

1. Definitions and Interpretations:

In the contract (as hereinafter defined) the following words and expressions shall have the meanings hereby assigned to them, except where the context otherwise required: -

“EMPLOYER/CLIENT” means M/S. BANK OF BARODA, and shall include his/their heirs, legal representatives, assignees and successors.

“CONTRACTOR” shall mean the individual or firm or company, whether incorporated or not, undertaking the works and shall include the legal personal representative or such individual or the persons, comprising such firm or company or the successors of such firm or company and the permitted assigns of such individual or firm or company.

“ARCHITECT” shall mean Gupta & Associates.(having their office at 9B-42, Mohankunj Vrindavan Yojna, Lucknow ph- 9935330077. engaged by the Bank Of Baroda to act as Architect for the purpose of the contract and shall include his/their heirs, legal representatives, assignees and successors.

“CONSULTING ENGINEER” means Sub-Consultant retained by the Architect or Employer for designing of Structural /ELECTRICAL/MECHANICAL /Sanitary and Plumbing works includes his/their heirs, legal representatives, assignees and successors.

“CONTRACT” means the documents forming the tender and acceptance thereof together with documents referred to therein or individual works orders in the case of terms of contracts including the General Conditions of Contract, Special Conditions, the Appendix, Bill of Quantities, Schedule of rates and prices or the rates quoted on lump sum basis, scope of work in case of lump sum contract, Specifications, Drawings and the Contract Agreement if completed and all these documents correspondence prior or letter of intent awarding the work as applicable taken together shall be deemed to form to Contract and shall be complementary to one another.

“CONTRACT PRICE” means the sum named in the letter of acceptance or the contract subject to such additions thereto or deductions there from as may be made under the provisions hereinafter contained in the contract.

i) “WORK” Works means all the works specified or set forth and required in and by the said specifications, drawings and schedule hereto annexed or to be implied there from and shall include both permanent works and temporary works, whether original, altered, substituted or additional, to be executed in accordance with the contract.

ii) “PERMANENT WORKS” means the permanent works to be executed and maintained in accordance with the contract.

(iii) “TEMPORARY WORKS” means all temporary works of every kind (other than Contractor’s Equipment) required in or about the execution and completion of the Works and the remedying of any defects therein.

“SPECIFICATION” means the specification referred to the tender and any modification thereof or addition thereto as may from time to time be furnished or approved in writing by the Architect.

“DRAWINGS” means the drawings, maps, plans & tracings or prints there of or referred in the contract, any modification of such drawings approved in writing by the Architect and such other drawings as may from time to time be furnished or approved in writing by the Architect.

“SITE” shall mean the land and/or other places on, into or through which work is to be executed under the contract or any adjacent land, path or street through which work is to be executed under the contract or any adjacent land, path or street which may be allotted or used for the purpose of carrying out the contract.

“NOTICE” in writing or written notice means a notice in writing typed or printed characters sent (unless delivered personally or otherwise proved to have been received) by registered post to the last known private or business address or

registered office of the addresses and shall be deemed to have been received when in the ordinary course of post it would have been delivered.

“APPROVED” means approved in writing including subsequent written confirmation of previous verbal approval and “Approval” means approved in writing including as aforesaid.

“MONTH” means month according to Gregorian calendar.

“SCHEDULE BANK” means bank included in the second schedule to the Reserve Bank of India Act, 1934.

“SUB CONTRACTOR” means any person, firm or corporation having a contract for the execution of a part or parts of the work included in the contract and a person, firm or corporation furnishing materials called for in the contract and worked to a special design according to the specifications.

“VIRTUAL COMPLETION” means that the constructions of works specified are of the works is sufficiently completed in accordance with the contract, as modified by any changed or variation orders agreed to by the parties so that the Employer can occupy the same for the use it was intended.

“CONTRACT PERIOD” means the accepted period of consecutive days stated on the Form of Tender starting from the Architect or Employer’s order to commence the work.

“ACT OF INSOLVENCY” means any act of Insolvency defined by the Presidency Towns Insolvency Act, or the Provincial Insolvency Act or any Act amending such original act/s.

“THE DATE OF COMPLETION” is the date or dates for completion of the work or works or any part of the works set out or ascertained in accordance with the individual works orders and the tender documents or any subsequent amendments thereto

“SINGULAR AND PLURAL” words importing persons include firms and corporations, words importing the singular party only also include the plural and vice versa where the context requires.

2. Project Management Consultant (PMC): -

The Project Management Consultant appointed by the Employer shall supervise the works and to test any materials to be used in the works. The contractor shall afford the Project Management Consultants every facility and assistance for examining the works and materials and checking and measuring works and materials. Contractor will provide space at his site office and necessary infrastructure for performing duties of PMC job to PMC. Architect Gupta & Associates is also PMC for the Project.

3. Duties and Powers of Project Management consultant: -

PMC duties are to watch and supervise the works of and to test any materials to be used or workmanship employed in connection with the works, quality control, Project Scheduling and monitoring and coordinating with all other Agencies and Civil Contractor, recording of measurements, certification of bills, preparing extra/deviation items, excess/ scoring statement, preparing Minutes of Meeting etc. They shall have no authority either to relieve the Contractor of any of his duties or obligations under the contract or except those expressly provided hereunder, to order any work involving delay or any extra payment by the Employer or any variation of or in the works.

Wherever it is mandatory by law, that the PMC appointed by the Employers shall be registered with the Local Municipal Corporation as Supervisor, the incumbent so selected shall so forthwith show his registration with Municipal Corporation.

The Contractor shall afford and provide every facility and assistance for examining the works and materials and checking and measuring time and materials etc to PMC. The PMC shall have no power to revoke, alter, enlarge or relax any requirements of this contract or to sanction any day work, additions, alterations, deviations or omissions unless such an authority may be confirmed by written order of the employer.

The PMC shall act in consultation with the Structural Consultant/Architect in regard to the quality of all structural aspects of work and in consultation with the Architect, will finalise the selection of finishing materials. The PMC shall jointly record the measurements with Contractor’s representative for all items of works and on completion hand over the records to the Employer.

The PMC shall have the power to give notice to the Contractor or his Engineer-In-Charge, about the no approval of any work or materials and such works shall be suspended or the use of such materials should be discontinued until the decision of the Architects/ Structural Consultant/ Employer but such examination shall not in any way exonerate the Contractor from the obligation to remedy any defects which may be found to exist at any stage of the work or after the same is completed. Subject to the limitations of this clause, the Contractor shall take instructions only from the Architects/ PMC/ Structural Consultant as the case may be.

The PMC shall have such other power and discharge other functions as are specifically provided in this contract included such incidental or consequential powers or duties, subject always to such specific instructions or directions of the Employer, which shall be duly notified to the Contractors.

4. Scope of Contract:

The contractor shall carry out and complete the said work in every respect in accordance with this contract and with the directions of and to the satisfaction of the Architect/Employer. The Architect may in his absolute discretion and from time to time, issue further drawings and/or written instructions, details, directions and explanations which are hereafter collectively referred to as "Instructions" reflected either in the minutes or in any other form in regard to:

The variation or modification of the design, quality or quantity of works or the additions or omissions or substitutions of any work.

Any discrepancy in the drawings and/or drawings and/or specifications.

The removal from the site of any material brought thereon by the contractor and the substitution of any other material thereafter.

The removal and/or re-execution of any works executed by the Contractor.

The dismissal from the works of any person employed thereupon.

The opening up for inspection of any work covered up.

The amending and making good of any defects.

Removal of improper works and materials.

Assignment and subletting.

The Employer shall have a right to delete or reduce any scope of work or any item from the contract and contractor shall not make any extra claim on this count Postponement of any work to be executed under the provision of the contract. The contractor shall forthwith comply with and duly execute any work comprised in such Architect's/Employer's Instructions, directions and explanations given to the Contractor or his representative. If instructions, directions upon the works by the Architect/Employer shall, if involving a variation be confirmed in writing by the Contractor, within 7 days and if not dissented in writing within a further 7 days by the Architect/Employer, such instructions shall be deemed to be the "Employer/Architect's Instructions" within the scope of the contract. If compliance with these instructions as aforesaid involves work and/or expenses and/or loss beyond that contemplated by the contract, then, unless the same were issued. If the Contractor fails to comply with the Employer/Architect's instructions within a fortnight after the receipt of written notice from the Employer/Architect requiring compliance with such instructions, the Employer, through the Architects, may employ some other agency to execute any work whatsoever which may be necessary to give effect to such instructions. For the purpose of entering day to day instructions by the Employer/Architect/PMC, the Contractor shall maintain at his own cost, a 'Site Instructions Book' in quadruplicate in which the instructions shall be entered by Employer/Architect/PMC. 'Instructions' to the Contractor shall be generally issued through PMC/Architect. However Employer, for the sake of urgency as a result of inspection, may issue instructions directly with the knowledge of the Architects who should ratify the same promptly.

5. Drawings and Specifications:

The Work shall be carried out to the entire satisfaction of the Employer/ Architects or their Consultants and in accordance with the signed drawings, specifications, preambles and such further drawings and details as may be provided by the Architect/ Structural Consultant and in accordance with such written instructions, directions and explanation as may from time to be given by the Employer/ Architect/ Structural Consultant whose decisions as to sufficiency and quality of the work and materials shall be final and binding upon all parties. No drawing shall be taken as in itself an

order for execution unless, in addition to the Architect /Structural Consultant's signature, it bears express words stating remark "VALID FOR CONSTRUCTION". No claim for payment for extra works shall be allowed unless the said work shall have been executed under the provisions of clause 9 (Authorities, Notices, Patent Rights and Royalties) or by the authorities directions in writing of the Consultant as herein mentioned. One complete set of the drawings, certified copy of tender document together with Specifications shall be furnished by the Architects to the Contractor. The Architect/ Structural Consultant shall furnish, within such time, as he may; consider reasonable, one copy of additional drawings, which in his opinion are necessary for the execution of any work. Such copies shall be kept on the works, and the Architect/Structural Consultant or his representatives shall at all reasonable times have access to the same. The Contractor before the issue of the Final Certificate shall return all drawings, certified copy of tender document together with specifications to the Architects. The Original Contract documents shall remain in the custody of the Employer and shall be produced by him at his office as and when required. Any additional prints of drawings in any, required by the Contractors may be supplied by the Architect /Structural Consultant but on the payments of charges.

6. Discrepancy in Various Documents:

The Contractor shall provide everything necessary for the proper execution of the works according to the true intent of and meaning of the Drawings, Specifications etc. taken together whether the same may or may not be particularly shown or described therein, provided that the same can be inferred there from. If the Contractor finds any discrepancy in the Drawings or between the drawings, Specifications etc., he shall immediately refer the same in writing to the Architect who shall decide which shall be followed, and his decision shall be final and binding on all parties.

7. Authorities, Notices, Patent Rights & Royalties: -

The Contractor shall conform to the provisions of the statutes relating to the works and to the Regulations and Bye Laws of any Local Authority and of any Water, Lighting or other Companies or Authorities with whose systems the Structure is proposed to be connected and shall before making any variation from the Drawings and Specifications that may be necessitated by so conforming, give to the Architect/Employer/PMC written notice, specifying the variations proposed to be made and the reason for making it, and apply for instructions thereon. The Contractor shall bring to the attention of the Architect/PMC/Employer, all notices required by the said Acts, Regulations or bye laws to be given to any authority and pay to such authority or to any public offices, all fees that may be properly chargeable, in respect of the works and lodge the receipts with the Architect/Employer. The Contractor shall indemnify the Employer against all claims in respect of patent rights, design, trade marks or name or other protected rights in respect of any constructional plant machine, work or material used for or in connection with the works or temporary works from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the Architect before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, costs and charges of all and every part that may be legally incurred in respect thereof.

8. Contract Price:

The Contract Price shall not be adjusted or altered in any way whatsoever otherwise than in accordance with the express provisions of these conditions and subject to Clause 48 of these conditions

9. Contract Bills:

The Contract Bills for certificate of payment shall be described in mode of payment. Contractor along with RA Bills submit photographs of work, copy of measurement, cement, steel consumption etc to Bank/architect.

Any error in description or omission of items from the Contract bills shall not vitiate this contract but shall be corrected and deemed to be a variation required by the Architect.

10. General Obligations:

Contractor's General Responsibilities

The Contractor shall subject to the provisions of the Contract and with due care and diligence, execute and maintain the works and provide all labour including the supervision thereof, materials, Constructional Plant and all other things whether of a temporary or permanent nature, required in and for such execution and maintenance so far as the necessity for providing the same is specified in or is reasonably to be inferred from the Contract.

The Contractor shall take full responsibility for the adequacy, stability and safety of all site operations and methods of construction, provided that the Contractor shall not be responsible except as may be expressly provided in the Contract

for the design or specification of the Permanent Works or for the design or specification of any Temporary works prepared by the Architect.

11. Contract Agreement:

The Contractor shall when called upon to do so enter into and execute a Contract Agreement to be prepared and completed at the cost of the Contractor in the form annexed with such modifications as may be necessary.

12. Performance Bond/Security Deposit:

The Contractor shall, (if the tender so provides) at his own expense provide or obtain a Bank Guarantee from nationalised Bank in the format approved by the Employer to be jointly or severally bound to together with him to the Employer in the sum provided in the tender for the due performance of the Contract. (Refer Appendix to form of Offer – Annexure-1)

13. Inspection of Site:

The Contractor shall inspect and examine the site and its surroundings and information available in connection therewith and shall satisfy himself so far as is practicable before submitting his tender as to the form and nature of the ground, including the subsurface conditions, the hydrological and estimate conditions, the extent and nature of work and materials necessary for the completion of the works, the means of access to the site and accommodation he may require and in general shall himself obtain all necessary information subject as above mentioned, as to risks, contingencies and all other circumstances which may influence or affect his Tender.

Nature of Ground: -

The Employer does not guarantee or warranty in any way that the material to be found in the excavations will be similar in nature to that of any samples, which may have been exhibited or indicated on the drawings or in any other Contract Documents, or to material obtained from borings or trial holes.

The Contractor shall be deemed to have made local and independent enquiries as to and shall take the whole risk of the nature of the ground subsoil or material to be excavated or penetrated and the Contractor shall not be entitled to receive any extra payment nor to rescind from the Contract nor to be relieved from any of his obligations there under by reason of the nature of such ground subsoil of material being other than that indicated on the Drawings or in any other Contract Documents or by any sample exhibited or deducted from the information provided by borings or trial holes.

14. Sufficiency of Tender:

The Contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and of the rates and prices stated in Schedule of Quantities/Scope of work and/or the Schedule of Rates and Prices, which rates and prices shall cover all his obligations under the Contract, and all matters and things necessary for the completion of the works.

Contractor not entitled to Extra Payment

Except as otherwise as specifically provided in the Contract, the Contractor shall not be entitled to any extra payment nor to resale from the Contract nor to be relieved from any of his obligation for reasons of his misunderstanding, or his failure to obtain correct information or his inability to foresee any matter which may affect the execution or maintenance of the works.

15. Work to be to the Satisfaction of the Architect

The Contractor shall execute and maintain the works in strict accordance with the contract to the satisfaction of the Architect/Employer/PMC and shall comply with and adhere strictly to the instructions and directions from them or their representative/s.

16. Programme to be furnished:

Within a reasonable time after the acceptance of his Tender, the Contractor shall submit to the Project Management Consultant/Architect/Bank for his approval and/or information a BAR Chart/chart showing the order of procurement and method in which he proposes to carry out the works, a general description of the arrangements and methods which he proposes to adopt for the execution of the Works, the Constructional Plant and Temporary Works which he intends to supply, use or construct as the case may be, the scheduling of samples, Shop Drawings and approvals from concerned authorities as required under the contract.

If the actual progress of the works does not conform to the approved chart, the Contractor shall be required to submit a revised programme and implement the same for the completion of the works within the stipulated time for completion.

List of personnel

- I. Authorized representative
- II. Technical & non-technical staff
- III. Skilled & unskilled labours
- IV. Security staff, deployed at site for on schedule completion of this contract.

The submission to and approval by the Architect/Project Management Consultant/Bank of such programs shall not relieve the Contractor of any of his duties or responsibilities under the contract.

17. Contractor's Superintendence:

The Contractor shall give or provide all necessary superintendence during the execution of the works and as long thereafter as the Architect/PMC/Employer may consider necessary. The Contractor or one of his competent and authorized agent or representative is to be constantly on the works and shall give his whole time to the superintendence of the same. Such authorized agent or representative shall receive on behalf of the Contractor the directions and instructions from the Architect /PMC /Employer.

18. Contractor's Employees:

The Contractor shall provide and employ on the site skilled and experienced technical assistants, foremen and leading hands to give proper supervision and such skilled, semi-skilled and unskilled labour for the proper and timely execution and maintenance of the works. The Contractor shall be required to remove forthwith from the works any person employed by the Contractor in or about the execution or maintenance of the works who in the opinion of the Architect/PMC/Employer misconducts himself or incompetent or negligent and thus considered to be undesirable and shall be replaced as soon as possible by a competent substitute approved by the Architect/PMC/Employer.

19. Setting Out:

The Contractor at his own expenses set out the works accurately in accordance with the plans and to the complete satisfaction of the Architect. The Contractor shall be solely responsible for the true and perfect setting out of the works in relation to original points lines and levels of reference and for the correctness of the positions levels, dimensions and alignment of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. The responsibility for the true and proper setting out rests with the Contractor who shall rectify any error at his own cost to the satisfaction of the Architect, unless such error is based on incorrect data supplied in writing by the Architect or his Representative, in which case the expenses of rectifying shall be borne by the Employer. The checking of any setting out or of any line or level by the Architect or his Representative shall not in any way relieve the Contractor of his responsibility for the correctness thereof and the Contractor shall carefully protect and preserve all benchmarks sight rails pegs and other things used in setting out the works.

20. Bore Holes and Exploratory Excavation:

If the Architect shall require the Contractor to make bore holes or to carry out exploratory excavation such requirement shall be an addition ordered under the provision of clause 42 hereof and such anticipated works shall have been included in the scope of work.

21. Security and maintenance of Premises Lighting:

The Contractor shall in connection with the works provide and maintain at his own cost all lights/ guards facing and watching when and where necessary or required by the Architect or his Representative or by any duly constituted authority for the protection of the works or for the safety and convenience of the public of others.

22. a) Care of Works:

From the commencement to the completion of the works, the Contractor shall take full responsibility for the care thereof and of all temporary works, and in case any damage, loss or injury shall happen to the works or to any part thereof or to any temporary works from any cause whatsoever, save and except risks as defined in sub-clause (b). In this clause, shall at his own cost, repair and make good the same, so that at completion, the permanent works shall be in good order and condition and in conformity in every respect with the requirements of the contract and the Architect's instructions. In the event of any such damage, loss or injury happening from any of the excepted risks, the contractor shall, if and to the extent required by the Architect and subject always to the provision of Clause mentioned elsewhere in the conditions hereof, repair and make good the same as aforesaid at the cost of the Employer. The Contractor shall also be liable for any damage to the works occasioned by him in the course of any operations carried out by him for the purpose of complying with his obligations under Clause 40 and 42 thereof.

b) Expected Risks:

The "Excepted Risks" are Force majeure, exceptionally incremental weather, fire, earthquake, civil commotion, riot, lockout, strike, war, hostilities (whether war be declared or not), invasion act of foreign enemies rebellion, revolution in

correction or military or usurped power civil war or a cause solely due to or use or occupation by the Employer of any portion of the works in respect of which a Certificate of Completion has been issued all of which are herein collectively referred to as "Expected Risks".

23. Insurance in Respect of Damage to Person and Property:

From Commencement to Completion, the Contractor shall be responsible for all injury to persons, animal or things and for all structural and decorative damage to property which may arise from operation or neglect of himself or any subcontractor or of any of his or a sub-contractor's employee whether such injury or damage may arise from carelessness, accident or any other cause whether in any way connected with the carrying out of this contract. This clause shall be held to include inter alia any damage to building, whether immediately adjacent or otherwise, any damages to roads, streets, footpaths, bridges, or ways as well as all damage to the buildings and works forming the subject of this contract by first or other inclemency weather. The contractor shall indemnify the Employer and hold him harmless in respect of all and any expenses arising from any such injury or damage to persons or property as aforesaid and also in respect of any claim made in respect of any award of compensation or damages consequent upon such claim. The Contractor shall reinstate all damage of every spot mentioned in this clause so as to deliver up the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damage to the property of third parties.

The Contractor shall indemnify the Employer against all claims which may be made against the Employer by any member of the public or other party in respect of anything which may arise in respect of the works or in consequence thereof 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 Employer and the Contractor against such risks and deposit such policy or policies with the Employer on the signing of the contract. The Contractor shall also indemnify the Employer against all claims which may be made upon the Employer whether under the Workmen's Compensation Act or any other statute in force during the currency of this contract or at common law in respect of any employee of the Contractor or of any sub-contractor 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 Employer and the Contractor against such risks and deposit such policy or policies with the Employer 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 the contract; however such damage shall be caused.

The Contractor shall at all times indemnify the Employer and keep indemnified in respect of any costs, charges for expenses arising out of any claim that may arise on account of the Contractor's operation at the site or proceedings and also in respect of any award of or compensation of damages arising there from. It shall also be the Contractor's responsibility to file and pursue with the Insurance Company for a claim if any.

The Employer with the concurrence of the Architect shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or acquiring from or in respect of any such claim or damages from any sums due or to become due to the Contractor.

Before commencing the work, the Contractor shall without limiting his obligations and responsibilities under the condition, obtain the necessary insurances. If he shall fail to effect and keep in force the insurances referred to in this clause hereof or any other insurances which he may be required to effect under the terms of contract then the contractor shall be fully responsible for the consequences of such a default. In any such case the Employer may effect and keep in force any such insurance and pay such premium or premiums as may be necessary for the purpose and from time to time deduct the amount so paid by the Employer as aforesaid from any monies due or which may become due to the Contractor or recover the same as a debt due from the Contractor.

The Contractor shall provide the Employer with documentary evidence from time to time that he has taken all the insurance policies mentioned in the foregoing paragraphs and that he has paid the necessary premium for keeping the policy valid till the works are completed and handed over to the employer.

The Architect/PMC shall ensure the validity of the insurance policies on behalf of the Employer. If extension of time limit is granted by Employer, he shall have to ensure that the insurance policies are progressively extended.

24. Compliance with Statutes, Regulations etc.

The Contractor shall comply with the provision of Payment of Wages ACT 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Industrial Dispute Act 1947, Maternity Benefits Act 1961 and the Contractor's Labour (Regulation and Abolition) Act 1970 or any such statutes ordinance or have and the modification thereof and the regulation or Bye-Laws of any local or other duly constituted authority and rules and regulations of public bodies and companies which may be applicable to the works or to any temporary works as aforesaid

and shall keep the Employer indemnified of every kind for breach of any such statute, ordinance or Law Regulation or Bye-Laws.

Contractor, as required, will pay necessary P.F. and E.S.I contribution for the contractor's workers and employer shall be absolved of all these risks.

25. Fire Insurance:

The Contractor shall at the time of signing of the contract insure until the virtual completion of the contract against loss or damage by fire in an office/company .Insurance against fire may be taken in CAR Policy if not covered in CAR Policy then separate Fire Insurance to be submitted by Contractor and to be approved by the Architect/Employer in the joint names of the Employer and Contractor (the name of the former being placed first in the policy) for the full amount of the contract and for any further sum if called upon to do so by Architect the premium of such further sum being allowed in the contract shall be authorized extra. Such a policy shall cover the property of the Employer only and the Architect and Surveyors' fees for assessing the claim and in connection with his services generally in the reinstatement and shall not cover any property of the Contractor or any sub contractor or employee. The Contractor shall deposit the policy and receipt for the premium with the Employer within twenty-one days from the date of signing the contract unless otherwise instructed. In default of the contractor insuring as provided above the Employer or the Architect on his behalf may so insurance and may deduct the premium from any moneys due or which may become due to the contractor. The Contractor shall as soon as the claim under the policy is settled or the work reinstated by the Insurance Office should they elect to do so, proceed with all the completion of the works in the same manner as though the fire had not occurred and in all respects under the same conditions of contract. The Contractor in case of rebuilding or reinstatement after fire shall be entitled to such extension of time for completion as the Architect may deem fit but shall however not be entitled to reimbursement by the Employer of any short fall or deficiency in the amount finally paid by the insurer in settlement of any claim arising as set out herein.

26. Giving of Notices and Payment of Fees

The Contractor shall give all notices and pay all fees required to be given or paid by any National or State Statute Ordinance or other Law or any Regulation or Bye-Law of any local or other duly constituted authority in relation to the execution of the works or of any temporary works and by the rules and regulations of all public bodies and companies whose property or rights are affected or a may be affected in any way by the works.

27. Returns of Labour etc.:

The Contractor shall furnish all such information regarding the supervisory staff, the numbers of the several classes of labour from time to time employed on the site, constructional plant etc. as the Architect may require.

28. Materials and Workmanship:

a) Quality of Material and Workmanship and Tests:

All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the Architect's/PMC instructions and the contractor shall upon the request of the Architect/PMC furnish to them all invoices, accounts, receipts and other vouchers to prove the materials comply therewith and shall be subjected from time to time to such tests as the Architect may direct at the place of manufacture or fabrication or on the site or at all or any of such places. The Contractor shall at his own cost provide such assistance, instruments, machines, labour and materials as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of materials before incorporation in the works for testing as may be selected and required by the Architect.

b) Cost of Samples and Shop Drawings:

All samples for the fittings and fixtures, wood, hardware etc. should be submitted for approval before using in the work. The Contractor at his own cost as directed by the Architect shall supply all Samples and Shop Drawings, Test report etc.

c) Cost of Tests

The cost of making any test shall be borne by the Contractor, if such test is clearly intended by or provided for in the contract and in the cases only for a test under load or of a test to ascertain whether the construction of any finished or partially finished work is appropriate for the purposes which it was intended to fulfil is particularized in the contract in sufficient detail to enable the Contractor to price or allow for the same in tender.

d) Cost of Test not provided for etc.

If any test is ordered by the Architect which is either: Not so intended by or provided for or, (In the case above mentioned) is not so particularized or, Though so intended or provided for is ordered by the Architect to be carried out by

an independent person at any place other than the site or the place of manufacture or fabrication of the materials tested, then the cost of such test shall be borne by the Contractor if the test shows the workmanship or materials not to be in accordance with the provisions of the contract or the Architect's instructions but otherwise by the Employer.

29.

a) Examination of Work Before Covering Up:

No work shall be covered up or put out of view without the approval of the Architect/PMC/Employer and the Contractor shall afford full opportunity for the Architect/PMC/Employer to examine and measure any work which is about to be covered up or put out of view and to examine foundations before permanent work is placed thereon. The Contractor shall give due notice to the Architect whenever any such work or foundations is or are ready or about to be ready for examination and the Architect shall without unreasonable delay unless he considers it necessary and advises the contractor accordingly attend for the purpose of examining and measuring such work or of examining such foundations.

b) Uncovering and Making Openings:

If the Contractor puts any part of the foundations or covers up or puts out of view before he has notified the Architect/PMC and received instructions, he shall be liable to reinstate all work that may subsequently be, at any time, damaged on account of any defect in or insufficiency of the foundation. The Contractor shall at the request of the Architect, open up for inspection any work, and should the Contractor refuse or neglect to comply with such requests, the Employer through the Architect, may employ other agency to open up the same. If the said work has been covered up in contravention of the Architect's instructions, or if on being opened up, if he found not in accordance with the drawings and the specifications or the instructions of the Architect, the expenses of opening it again, whether done by the Contractor, or such other agency, shall be borne by the Contractor, and shall be recoverable from him by the Employer or may be deducted by the Employer from any monies due or which may become due to the Contractor. If the work has not been covered in contravention of such instructions and found to be in accordance with the said drawings and specifications or instructions than the expenses aforesaid shall be borne by the Employer and be added to the contract sum; provided always that in the case of foundation or any other urgent work so open up and required immediate attention, the Architect shall within 7 days after receipt of written notice from the Contractor that the work has been opened make or cause the inspection thereof to be made at the expiration of such time, if such inspection shall not have been made. The contractor may cover up the same and shall not be required to open it up again except at the expenses of the Employer.

30.

a) Removal of Improper Work and Materials:

The Architect shall during the progress of the works have power to order in writing from time to time. The substitution of proper and suitable material and,

The removal and proper re-execution notwithstanding any previous test thereof or interim payment therefore of any work which in respect of materials or workmanship is not in accordance with the contract in the opinion of the Architect.

b) Default of Contractor in Compliance:

In case of default on the part of the Contractor in carrying out such order the Employer shall be entitled to employ and pay other agency to carry out the same and all expenses consequent thereon or incidental thereto shall be borne by the Contractor and shall be recoverable from him by the Employer or may be deducted by the Employer from any amount due or which may become due to the Contractor.

31. Suspension of Work:

The Contractor, shall on the written order of the Architect/Employer suspend the progress of the works or any part thereof for such time or times and in such manner as the Architect may consider necessary and shall during such suspension properly protect against threats or damage and secure the work, so far as is necessary in the opinion of the Architect. The cost, if any, incurred by the Contractor in giving effect to the Architect's instructions and PMC's recommendations, if any, under this clause shall be borne and paid by the Employer unless such suspension is:

Otherwise provided for in the contract or

Necessary by reason of some default on the part of the Contractor or Provided that Contractor shall not be entitled to recover any such extra cost unless he gives written notice of his intention to claim to the Architect on receipt of the Architect's order. The Architect shall settle and determine the payment and/or extension of the time under Clause 42 hereof to be made to the Contractor in respect of such claim as shall, in the opinion of the Architect, be fair and reasonable.

32. Commencement of Works:

The Contractor shall commence the works on site after the receipt by him of an order in writing to this effect from the Employer and shall proceed with the same with due expedition and without delay except as may be expressly sanctioned or ordered by the Architect/Employer or be wholly beyond the Contractor's control.

33. Possession of Site:

a) Save in so far as the contract may prescribe and with the Architect's/PMC/Employer written order to commence the works, the Contractor shall be given possession of the whole of the site or part by part progressively enabling him to commence and proceed with the execution of the works in accordance with the programme referred to in Clause 16 hereof. If the Contractor suffers delay on account of the Employer's failure to give possession of site in accordance with the terms of this clause, necessary extension of time (without any financial implications) shall be granted by the Employer for the completion of the entire works, on recommendations of Architect/PMC.

b) The Contractor shall bear all costs and charges for special or temporary way leaves required by him in connection with access to the site. The Contractor shall also provide at his own cost any additional accommodation outside the site required by him for the purposes of the works.

34. Time for Completion

Subject to any requirement in the contract as to completion of any section of the works before completion of the whole, the whole of the works shall be completed within the time stated in the contract calculated from the date of the Employer's written order to commence the works or such extended time as may be allowed under Clause 35 hereof.

34.1. Certification of Virtual Completion of Works

The contractor shall report in writing to the PMC when the works are completed in all respects. The PMC shall after the verification of works and in consultation with Architects issue to the contractor a certificate to be called "Virtual Completion Certificate" a copy whereof shall be submitted to the employer to enable it to take possession of the completed works. The Defects liability period shall commence only from the date of issue of such Virtual Completion certificate. \

35. Delays and Extension of Time for Completion

In the opinion of the Architect/PMC, the works be delayed (a) by force majored (b) by reason of any exceptionally inclemental weather or (c) by reasons of proceedings taken or threatened by or dispute with adjoining or neighbours of adjoining properties or public authorities arising otherwise than through the Contractor's own default or (d) by the works or delays of the other Contractors or Tradesman engaged or nominated by the Employer or the Architect and not referred to in the Schedule of Quantities and/or specifications or (e) be reason of the Architect's instruction or (f) by reason of civil commotion, local commotion of workmen or strike or lockout affecting any of the building trades or (g) due to extra or additional work or other circumstances provided the Contractor has intimated to the Architect full and detailed particulars soon after such work has been commenced or (h) in consequence of the Contractor, not having in due time necessary instructions from the Architect for which he shall have specifically applied in writing ahead of time, giving the Architect reasonable time to prepare such instructions, the Employer shall make a fair and reasonable extension of time for completion of work. In case of such strike or lockout, the Contractor shall, as soon as may be, give written notice thereof to the Architect/PMC but the Contractor shall nevertheless constantly use his endeavours to prevent delay and do all that may reasonably be required to the satisfaction of the Architect/PMC to proceed with the work.

35.01 Escalation for Material & Labour- *No escalation/PVA is applicable .The Rates will be remain firm handing over the site/completed building from date of commencement of work. Contractor will not raise this issue on any forum viz. Arbitration, Court, etc.*

Rate of Progress:

The whole of the material plant and labour to be provided by the Contractor under Clause 13 hereof and the mode, manner and speed of execution and maintenance of the works are to be of a kind and constructed in a manner approved of by the Project Management Consultant. Should the rate or progress of the works or any part thereof, be at any time in the opinion of the Project Management Consultant too slow to ensure the completion of the works by the prescribed time or extended time for completion, the Project Management Consultant shall so notify the Contractor in writing and the Contractor shall there upon take such steps as the Contractor may think necessary and the Project Management Consultant may approve to expedite progress so as to complete the works by the prescribed time or extended time for

completion. If the work is not being carried on by day and night the Contractor shall request permission to work by night as well as by day then if the Architect/Employer shall grant such permission the Contractor shall not be entitled to any additional payment for so doing but if such permission shall be refused and there shall be no equivalent practicable method of expediting the progress of works, the time of completion of the works shall be extended by the Employer by such period as is solely attributable to such refusal. All work at night shall be carried out without unreasonable noise and disturbance. The Contractor shall indemnify the Employer from and against any liability for damage on account of noise or other disturbance created while or in carrying out the work and from and against all claims, demands, proceedings, damages, costs, charges and expenses whatsoever in regard or in relation to such liability.

36. Liquidated Damages for Delay

If the Contractor shall fail to complete the works within the time prescribed by Clause 34 hereof or extended time then the Contractor shall pay to the Employer the sum stated in the Tender as Liquidated Damages for such default and not as a penalty for every day or part of a day which shall elapse between the time prescribed by Clause 41 hereof or extended time as the case may be and the default certified completion of the works. The Employer may deduct without prejudice to any other method of recovery deductible amount of such extent from the money that stands due or which may become due to the Contractor. The payments or deduction of such damages shall not relieve the Contractor from his obligations and liabilities under the contract.

37. Certificate of Completion of Works:

When the whole of the works have been substantially completed and have satisfactorily passed any final test that may be prescribed by the contract, the Contractor may give a notice to the effect to the Project Management Consultant accompanied by an undertaking to finalize any outstanding work during the period of maintenance. Such notice and undertaking shall be in writing and shall be deemed to be a request by the Contractor for the Project Management Consultant to issue a Certificate of Completion in respect of the works. The Architect, shall within twenty eight days of the date of delivery of such notice either issue to the Contractor, with a copy to the Employer, a Certificate of Completion stating the date on which, in his opinion, the works were substantially/virtually completed in accordance with the contract or give instructions in writing to the Contractor specifying all the work which, in the Project Management Consultant's opinion, requires to be done by the Contractor before the issue of such Certificate. The Architect/PMC shall also notify the Contractor of any defects in the works affecting substantial completion that may appear after instructions and before completion of the Works specified therein. The Contractor shall be entitled to receive such certificate of completion within twenty-eight days of completion to the satisfaction of the Architect/PMC of the Works so specified and making good any defects so notified.

Certification of Completion by Stages

Similarly, in accordance with the procedure set out in sub clause (a) of this Clause, the Contractor may request and the Project Management Consultant shall issue a Certificate in respect of:

- i) Any section of the Permanent Works in respect of which a separate time for completion is provided in the contract, and
- ii) Any substantial part of the Permanent Works, which has been completed to the satisfaction of the Architect/PMC and occupied or used by the Employer.

If any part of the Permanent Works shall have been substantially completed and shall have satisfactorily passed any final test that may be prescribed by the contract, the Architect, on recommendations of PMC, may issue a Certificate of Completion in respect of that part of Permanent Works before completion of the whole of the works and upon the issue of such Certificate, the Contractor shall be deemed to have undertaken to complete any outstanding work in that part of the Work during the period of maintenance. Provided always that Certificate of Completion given in respect of any section or part of the Permanent Works before Completion of the whole shall not be deemed to certify completion of any ground or surfaces regarding reinstatement, unless such Certificate shall expressly so state.

38. Defects:

a) Definition of "Defects Liability Period:

In these conditions, the expression "Period of Defects Liability" shall mean the period of Defects Liability named in the Tender, calculated from the date of completion of the Works, certified by the Architect/PMC in accordance with item no.13 of Annexure-1 (appendix to form of offer) and mentioned elsewhere in the tender, or in the event of more than one certificate having been issued by the Project Management Consultant/Architect under the said Clause from the respective

dates so-certified. In general, the Defects Liability Period shall be one year after the virtual completion of the works (except for all Water Proofing Works for which the period shall be 10 years).

b) Defects:

The Contractor shall make good at his own cost and to the satisfaction of the PMC/Architect, all defects, shrinkage, settlement, or other faults and all damages, loss and expenses consequent thereon or incidental thereto, and such damage, loss and expenses shall be recoverable from him by the Employer or may be deducted by the Employer upon the PMC/Architect's Certificate in writing from any money due or that become due to the Contractor.

c) Entry to the Premises for Attending Defects:

The premises shall have/remain in exclusive physical possession of the Employer and the Contractor is given only a temporary permission to enter the said premises with his workman, agents for attending the defects, during the defects liability period. If the Contractor or his workman whether negligently or otherwise causes any damage or loss to the property, fixtures of the Employer lying in the premises, the Contractor shall be bound to reimburse such loss to the Employer. The Employer always is entitled to deduct any amount of sum loss from the amounts payable to the Contractor.

d) Execution of Work of Repair etc.:

To the intent that the Works shall at or as soon as practicable after the expiration of the Defects Liability Period be delivered to the Employer in the condition required by the Contractor, fair wear and tear excepted, to the satisfaction of the Architect/PMC, as that in which they were at the commencement of the DLP, the Contractor shall finish the Work, if any, outstanding at the date of completion, as certified under Clause 39 hereof, as soon as practicable after such date and shall execute all such work of repair, amendment, reconstruction, rectification and making good defects, imperfections, shrinkages or other faults as may be required of the Contractor in writing by the Architect/PMC during the DLP within fourteen days after its expiration, as a result of an inspection made by Architect/Employer/PMC prior to its expiration.

e) Cost of Execution of Work of Repair etc.:

All such work shall be carried out by the Contractor at his own expenses if the necessity thereof shall, in the opinion of the Architect/PMC, be due to the use of materials or workmanship not in accordance with the contract or to neglect or failure on the part of the Contractor to comply with any obligation, expressed or implied, on the Contractor's part under the Contract. If, in the opinion of the Architect/PMC/Employer, such necessity shall be due to any other cause, the value of such work shall be ascertained and paid for as if it were additional work.

f) Remedy on Contractor's Failure to Carry Out Work Required:

If the Contractor shall fail to do any such work as aforesaid required by the Architect/PMC, the Employer shall be entitled to employ and pay other persons to carry out the same and if such works which is in the opinion of the Architect/PMC, the Contractor was liable to do at his own expense under the Contract, then all expenses consequent thereon or incidental thereto shall be recoverable from the Contractor by the Employer or may be deducted by the Employer from any money due or which may become due to the Contractor.

39. Alterations, Additions and Omissions:

a) The term "Variation" as used under this clause means the alteration or modification of the design, quality or quantity of work as shown upon the drawings, scope of works, specification or included in the priced schedule of quantities and desired by or referred to in the schedule of quantities and includes the addition, omission or substitution of any work, the alteration of the kind of standard or any of the materials or goods to be used in the work, and removal from the site of any works materials or goods executed or brought thereon by the Contractor for the purpose of work other than work materials or goods which are not in accordance with this contract. The Architect/Employer shall have power to order the Contractor to do any of the following:

- i) Increase or decrease the quantity of any work included in the contract.
 - ii) Omit any such work.
 - iii) Change the character or quality or kind of any such work.
 - iv) Change the levels, lines, position and dimensions of any part of the Works and
 - v) Execute additional work of any kind necessary for the completion of the works and no such variation shall in any way validate or invalidate the contract, but the value, if any, of all such variations shall be taken into account in ascertaining the amount of the Contract Price.
- b) Orders for Variation to be in Writing:

The Contractor shall make no such variations without an order in writing of the Architect/Employer. Provided that no order in writing shall be required for increase or decrease in the quantity of any work where such increase or decrease is not the result of an order given under this Clause, but is the result of the quantities exceeding or being less than those stated in the scope of works.

40. Contractor to Search:

The Contractor shall, if required by the Architect/PMC in writing, search under the directions of the Architect/PMC for the cause of any defect, imperfection or fault appearing during the progress of the works or in the Period of DLP. Unless such defects, imperfection or fault shall be one for which the Contractor is liable under the contract, the cost of the work carried out by the Contractor in searching as aforesaid shall be borne by the Employer. If such defect, imperfection or fault shall be one for which the Contractor is liable as aforesaid, the cost of work carried out in searching as aforesaid shall be borne by the Contractor and he shall in such case repair, rectify and make good such defect, imperfection or fault at his own expense in accordance with the provisions of Clause 39 and 40 hereof.

41. Extra Item of Work:

a) Work or material of nature not included under the Schedule of items which has to be executed or supported, ensurance of any of the Provisions of this contract shall be considered as on extra item. When alterations/additions or omissions made to any work or material shall be such that the cost of the resulting work cannot be estimated according to the tendered items the same shall also be considered extra item. The Contractor shall carry out the extra items as may be directed by the Architect/Employer. However, extra charges or claims in respect of any work will not be allowed unless the works they relate are clearly outside the spirit and meaning of the tender item/specifications and such works are ordered by the Architect/Employer and claimed for specified manner before the particular work is actually commenced. The extra item rate shall be approved by Architect/Bank on basis of rate analysis submitted by Contractor after duly verification and recommendation by Architect/Bank's Engineer.

b) Prices for Extras, Ascertainment of:

If any of the extra item is approved by Bank, then rates shall be paid as per CPWD DSR 2016/Latest version without any escalation at time of approval of extra items. If it is not available in DSR then it will be derived from the quoted rates of the Contractor for comparable items of similar nature/scope/description under Schedule of Quantities of the Tender, making allowance for variations only. However if no comparable items are available in the unit rates and the quantity of work is to be executed can conveniently be derived / measured; the same shall be arrived at based on the prevailing rates in the original tender. However, where the work is so disjointing the unit rates or the quantity of work done cannot be conveniently be derived/measured then it will be within the purview of the Architect/Employer to derive the rates either from Tender item or other extra items or by rate analysis showing clearly the fair market cost of material, cost of labour, plus 15% to cover overheads, profit etc. The actual cost shall be determined for the above purpose, as the cost of: -

- i) Materials supplied or used at site on items forming part of completed item of work as determined by the Architect/PMC by inquiry of the prevailing market rate at the time of procurement.
- ii) Materials (non-consumable) which are used temporarily and not forming a part of the completed item of main work, provided the same are solely meant for the particular and this cost would be determined by the Architect/PMC by inquiry of prevailing market rate.
- iii) The actual cost of transport if solely transported for the execution of the particular extra work and running charge of equipment if any used for the execution of the particular extra item of work.
- iv) Skilled and unskilled labour charges for the actual strength of labour employed and petty supervision charges as certified by the Architect/PMC.

Other relevant applicable costs viz. water, electricity, sundries etc as per CPWD guidelines may be considered on satisfactory production of documentary evidence to the PMC/Architect/Employer.

No escalation shall be entertained on such extra items.

c) If qty. of any item exceeded more than 10% of tender quantity than the exceeded quantities shall be treated as extra items. The Rate for exceeded qty. will be worked out as per above procedure, if quoted rate is not as per prevailing market/reasonable rate .

d) Claims: -

The Contractor shall send to the employer's representative/ PMC prior to submission of Interim Bill/Running Bill giving particulars of all claims for any additional payment to which the Contractor may consider himself entitled and of all extra or additional work ordered by the Architect/Employer, which he has executed. No final or interim claim for payment for

any such work or expense will be considered which has not been included in such particulars. Provided always that the Architect shall be entitled to authorize payment to be made for any such work or expense, notwithstanding the Contractor's failure to comply with this condition, if the Contractor, has at the earliest practicable opportunity, notified the Architect/PMC/Employer in writing such claims along with required particulars. Claim if any should be submitted along with Final bill by Contractor to Bank/Architect. No Claim shall be considered by Bank/Architect after submission of Final Bill to Bank/Architect by Contractor.

Plant Temporary Works and Materials: -

a) Plant etc. Exclusive use for the Works:

All Constructional Plant, Temporary Works and materials provided by the Contractor shall when brought on to the site immediately be deemed to be exclusively intended for the construction and completion of the Works and be deemed to become the property of the Employer and the Contractor shall not remove the same or any part thereof (Save for the purpose of moving it from one part of the site to another without the consent in writing of the Employer which shall not be unreasonably withheld. But the Employer will permit the Contractor the exclusive use of all such Constructional plant, Temporary works and materials in and for the completion of the works until the happening of any event which gives right to the Employer to exclude the Contractor from the site and proceed with the completion of the works.

b) **Revesting of Plant Etc.: -**

Upon the removal of any such Constructional Plant, Temporary works of materials with consent as aforesaid the same shall be deemed to revest in and become the property of the Contractor and upon completion of the Works the remainder of the said Constructional Plant and Temporary Works and any unused materials provided by the Contractor shall be deemed to revest in and become the property of the Contractor who shall remove the same. If the Contractor fails to remove any of the said Constructional Plant, Temporary Works of unused materials within such reasonable times after the completion of Works as may be allowed by the Architect/PMC then the Employer may sell the same and shall after deducting from the proceeds the charges and expenses and in connection with such sale pay the balance (if any) to the Contractor.

c) **Employer not Liable for Damage to Plant etc.: -**

The employer shall not at any time be liable for the loss of or injury to any or the said Constructional Plant, Temporary Works or materials save as mentioned in Clause 22 hereof.

42. Approval of Materials, Etc.:

The Architect/PMC/Employer is at a liberty to reject any materials, if in his opinion they are of sub-standard quality or not as per the tender specifications.

43. Works to be measured: -

The Project Management Consultant shall, except as otherwise stated, ascertain and determine by measurement the value in terms of the contract of work done in accordance with the contract. It shall, when it required any part or parts of the works to be measured, give notice to the Contractor's authorized agent or representative, who shall forthwith attend or send a qualified agent to assist the PMC/Architect in making such measurement, and shall furnish all particulars required by either of them. Should the Contractor not attend, or neglect or omit to send such agent, then the measurement made by the PMC or approved by him shall be taken to be the correct measurement of the work. For the purpose of measuring such Permanent Work as is to be measured by records and drawings, the PMC shall prepare records and drawings month by month of such work and the Contractor as and when called upon to do so writing, shall, within fourteen days, attend to examine and agree such records and drawings with the employer's representative/PMC and shall sign the same when so agreed. If the Contractor does not so attend to examine and agree such records and drawings, they shall be taken to be correct. If, after examination of such records and drawings, the Contractor does not agree with the same or does not sign the same as agreed, they shall nevertheless be taken to be correct, unless the Contractor shall, within fourteen days of such examination, lodge with the employer's representative/PMC for decision by the Architect/Employer, notice in writing of the respects in which such records and drawings are claimed by him to be incorrect.

44. Method of Measurements: -

a) Measurements shall be taken in accordance with the method stipulated in the specification. In case it is not stated the following shall be the method of measurements:

- i) As per Indian Standard method of measurements of building works (I S 1200 - 1958).
- ii) The measurement for certificate of payment shall be as described in mode of payment.

iii) b) Quantity Surveying: -

The Contractor will himself undertake the quantity surveying work and submit his bills supported by reconciliation statements as directed. In case he fails to submit his bills in proper order, the Employer reserves for himself the right to employ an expert who will also be employed, if the bills stated by the Contractor show inaccuracies frequently indicating that the Contractor is not capable of taking the required measurements and producing a proper bill. The Contractor (or the expert) will make the measurements on the basis of the drawings as far as it is practicable. The billing procedure and formats shall be as approved by the Architect/PMC.

45. Assignment or Sub-Letting: -

The Contractor shall not assign or sub-let any portion of the work, except as expressly provided elsewhere in these documents.

46. Certificates and Payments:

a) Certificates and Payments: -

i) The Contractor shall submit to the Project Management Consultant/Architect after the end of each month statements and voucher and documents etc. as directed and signed by the Contractor showing the quantities and value of the materials, equipments etc. ordered, work done on the site and of the stock of equipments and unused materials on the site intended to form part of the permanent work or such other items as directed.

ii) The rates of prices in such monthly statements shall be in accordance with stipulations in the contract.

iii) If any rates or prices in the said contract are in the opinion of the Architect/Project Management Consultant not applicable to some or any part of the work executed or materials supplied and the Architect/PMC has not fixed a rate or price at the time when the monthly statement is prepared then temporary/provisional rates or prices shall be assigned by the Project Management Consultant's Representative.

iv) Neither the temporary rates or prices assigned under sub- clause (iii) of this clause nor the quantities mentioned in the statements submitted under sub-clause (i) of this clause shall be binding on the Employer or on the Contractor.

v) The Contractor shall when required by the Architect/PMC furnish all proper documents vouchers, returns etc. as to values to assist the Architect/PMC in the preparation of certificate. b) Interim Payment:

The Contractor will be paid interim payment on the certificate of the Architect/Project Management Consultant's contract value of the Permanent Works executed up to date together with such amount (if any) that the Architect/Project Management Consultant may consider proper on account of materials delivered by the Contractor on the site and in addition such amount that the Architect/Project Management Consultant may consider fair and reasonable for any Temporary Works subject to a retention of the percentage named in the

Contract until the amount retained shall reach the "Limit of Retention Money" named in the Contract (hereinafter called "the retention money") after which time no further deduction of retention will be made.

The issue of interim payment certificate by the Project Management Consultant/Architect for the value of work done and period of honouring such certificates by the Employer shall be as indicated in special condition of Contract hereto.

c) Final Bill:

Contractor will submit final bill to Architect along with MB, all MTC/Test Certificate, as built drawings, variation, all guarantee, all NOC's (Fire NOC, Electric Safety Certificate, Required Electric Load Sanction etc.) mentioned in Tender Document. The time of honouring final bill will be within 6 months from the date of receiving of final bill after addressing clarification sought by Bank/Architect of all queries by Contractors. When the Architect has granted a certificate or certificates of completion for the whole of the works under clause 38 hereof and when the Architect/PMC has ascertained (excluding in so doing unsettled or disputed claims of the Contract) the final sum (that is to say the gross payment for the completion of the whole of the works) due to the Contractor, the Project Management Consultant shall after allowing for the amount of all previous certificate and after determining and allowing for any sum due to the Employer from the Contractor for delay and after allowing for all other payments due from the Contractor to such a sum out of the balance so calculated as remaining due to the Contractor as will leave to be retained by the Employer a sum equal to retention money for defects liability period . The issue of Final payment certificate by the Project Management Consultant/Architect for the value of work done and period of honouring such certificates by the Employer shall be as indicated in special condition of Contract hereto.

As soon as possible after the Certificate or Certificates of completion for the whole of the works have been issued, the Contractor shall furnish a final account for the works in the form and manner prescribed by the Architect/PMC.

d) Payment after Defects Liability Period:

The said retention money retained under sub-clause (c) of this clause and the amount if and by which the final sum exceeds the final sum ascertained under the said sub-clause (c) will not be paid by the Employer until after the expiration of defects liability period and then (subject to the deduction of such sums if any as the Project Management Consultant shall determine to be due from the Contractor to the Employer) only upon the Architect/PMC/Employer being satisfied that all the Contractor's obligations under the Contract have been satisfactorily performed.

e) **Time of Payment:** - Payment upon each of the Project Management Consultant's Certificates shall be made by the "Employer within the specified time as mentioned in Appendix to Form of Offer Page-16 of the Contract".

f) **Correction/ Withholding of Certificates:** -

The Project Management Consultant may by any certificate make any correction or modification in any previous certificate, which shall have been issued and shall have power to withhold approval of any certificate if the works of any part thereof are not being carried out to satisfaction.

47. Remedies and Powers:

a) **Default of Contractor:** -

If the Contractor shall become bankrupt, or have a receiving order made against him, or shall present his petition in bankruptcy, or shall agree to carry out the Contract under a committee of inspection of his creditors or, being a corporation, shall go into liquidation (other than a voluntary liquidation for the purposes of amalgamation or reconstruction), if the contractor shall assign the Contract, without the consent in writing of the Employer first obtained, or shall have an execution levied on his goods, or if the Architect/PMC shall certify in writing to the Employer that in his opinion the Contractor :-

i) Has abandoned the Contract, or

ii) Without reasonable excuse has failed to commence the works or has suspended the progress of the works for twenty eight days after receiving from the Architect/Employer written notice to proceed, or Has failed to remove materials from the site or to pull down and replace work for twenty eight days after receiving from the PMC's written notice that the said materials or work had been condemned and rejected by the Architect's under these conditions, or

iii) Despite previous warnings by the Architect/PMC in writing, is not executing the works in accordance with the Contract, or is persistently or flagrantly neglecting to carry out his obligations under the Contract, or has, to the detriment of good workmanship, or in defiance of the Architect's instructions to the contrary, sub-let any part of the contract then the Employer may, after giving fourteen days notice in writing to the Contractor, enter upon the site and the works and expel the Contractor there from without thereby voiding the contract, or releasing the Contractor from any of his obligations or liabilities under the Contract, or affecting the rights and powers conferred on the Employer or the Architect by the Contract, and may himself complete the works or may employ any other Contractor to complete the works. The Employer or such contractor may use for such completion so much of the Constructional plant, temporary works and materials, which have been deemed to be reserved exclusively for the execution of the works, under the provisions of the contract, as he or they may think proper, and the Employer may, at any time, sell any of the said constructional plant, temporary works and unused materials and apply the proceeds of sale in or towards the satisfaction of any sums due or which may become due to him from the Contractor under the Contract.

b) **Valuation at Date of Forfeiture:** -

The Architect shall, as soon as may be practicable after any such entry and expulsion by the Employer, fix and determine expiate, or after reference to the parties, or after such investigation or enquiries as he may think fit to make or institute, and shall certify that amount, if any, had at the time of such entry and expulsion been reasonably earned by or would reasonably accrue to the Contractor in respect of work then actually done by him under the Contract and the value of any of the said unused or partially used materials, any Constructural Plant and any temporary works.

c) **Payment after Forfeiture:** -

If the Employer shall enter and expel the Contractor under this Clause, he shall not be liable to pay to the Contractor any money on account of the Contract until the expiration of the Defects Liability Period and thereafter until the costs of execution and maintenance, damages for delay in completion, if any, and all other expenses incurred by the Employer have been ascertained and the amount thereof certified by the PMC/Architect. The Contractor shall then be entitled to receive only such sum or sums, if any, as the Architect may certify would have been payable to him upon due completion by him after deducting the said amount, if such amount shall exceed the sum which would have been payable to the

Contractor on due completion by him, then the Contractor shall, upon demand, pay to the Employer the amount of such excess and it shall be deemed a debt due by the Contractor to the Employer and shall be recoverable accordingly.

48. Urgent Repairs: -

If, by reason of any accident of failure, or other event occurring or connection with the works, or any part thereof, either during the execution of the works, or during the DLP, any remedial or other work or repair shall in the opinion of the Architect/PMC, be urgently necessary for the safety of the works and the Contractor is unable or unwilling at once to do such work or repair, the Employer may employ and pay other persons to carry out such work or repair as the PMC/Architect may consider necessary.

If the work of repair so done by the Employer is the work which in the opinion of the Architect, the Contractor was liable to do at his own expense under the Contract, all expenses incurred by the Employer in so doing shall be recoverable from the Contractor by the Employer, or may be deducted by the Employer from any monies due or which may become due to the Contractor. Provided always that the Architect/PMC as the case may be, shall as soon after the occurrence of any such emergency as may be reasonably practicable notify the Contractor thereof in writing.

49. Matters to be finally Determined by the Architect: -

The decision, opinion, direction certificate (except for payment) with respect to all or any of the matters under Clauses hereof (which matters are hereinafter referred to as excepted matter) shall be only on PMC's scrutiny and recommendations to the Bank and shall be final and conclusive and binding on the parties hereto and shall be without appeal: -

Clause 5 - Architect's interpretation of drawings and further drawings and instructions.

Clause 15 - Work to the satisfaction of the Architect.

Clause 28 - Quality of material and workmanship and tests.

Clause 30(a) -Removal of improper work and materials.

Clause 35 – except 35(e)

Clause 40 - Variations

Any other decision, opinion, direction, certificate or valuation of the Architect to give any of the same shall be subject to the right or arbitration.

50. Settlement of Disputes and Arbitration Act 1996: -

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

i) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to the **General Manager, Lucknow, Bank of Baroda** and endorse a copy of the same to the Architect, within 30 days from the date Of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the Bank be in any way liable in respect of any claim by the contractor unless notice of such claim shall have been given by the contractor to the General Manager, **Bank of Baroda, Lucknow** in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the General Manager, **Bank of Baroda Lucknow** in writing in the manner and within the time as aforesaid.

ii) The AGM/Chief Manager, Bank of Baroda shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of **The AGM/Chief Manager , Bank Of Baroda** submit his claims to the conciliating authority namely the **Dy. General Manager Bank Of Baroda** ,for conciliation along with all details and copies of correspondence exchanged between him and the **AGM/Chief Manager, Bank Of Baroda**.

iii) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned **Dy. General Manager** of the Bank for

appointment of an Arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.

iv) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes or differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the sole Arbitrator appointed by the **General Manager, Bank Of Baroda**. It will also be no objection to any such appointment that the Arbitrator so appointed is a Bank officer and that he had to deal with matter to which the contract relates in the course of his duties as Bank officer. If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole Arbitrator shall be appointed in the manner aforesaid by the said **General Manager, Bank of Baroda**. Such person shall be entitled to proceed with the reference from the stage he is entitled to proceed with the reference from the stage at which it was left by his Predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator. It is also a term of this contract that no person other than a person appointed by such General Manager, Bank of Baroda as aforesaid should act as Arbitrator.

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

It is also a term of the contract that fees, Travelling, lodging, etc, or any such expenses on account of Arbitration, payable to the arbitrator, shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank officer.

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

SPECIAL CONDITIONS OF CONTRACT (ANNEXURE 4)

7.1. Location of Site

The site is located at Bank's Flats at Himalaya Enclave Vrindavan Yojna Lucknow.

7.2. Dimensions and Levels

All dimensions and levels shown on the Drawings shall be verified by the Contractor on the site and he will be held responsible for the accuracy and maintenance of all dimensions and levels.

7.3. Notice of Operation:

a) The Contractor shall not carry out important operation without the consent in writing of the Employer/ Project Management Consultant.

b) If it is found that the two or more persons who are connected with one another either financially or as principal and agent or master and servant have tendered separately under different names, for the same work without disclosing their relation, the tender will be cancelled. Any contract if entered into, under such conditions, will also be cancelled at any time during its currency and earnest money will be forfeited.

7.4. Programme of Works and Method of Construction:

In pursuance of General Condition of Contract, the contractor on starting the work shall furnish to the Architect/PMC a program for carrying out the work stage by stage in the stipulated time. Bar chart etc. on individual work shall be maintained showing the progress week by week. The contractor shall submit to the Project Management Consultant a weekly progress report stating the number of skilled and unskilled labours employed on the works, working hours done, quality of cement used, place, type and quality/quantity of work done during the period.

7.5. Assistance for Employer/Architect/ Project Management Consultant:

The Contractor shall provide for the Employer/Architect at all times during the Contract including Defects Liability Period a PMC and/or all such other men as he may require to assist him in carrying out or checking any measurements, levels, setting out or measuring up of work. The Contractor is also to provide ladders, gangways, etc., and the necessary attendance to move and adopt as directed for inspection or measurement of the works by the Architect.

7.6. Construction Records

The Contractor shall keep and supply to the Employer/ Project Management Consultant full and accurate records of the dimensions and positions of all new work and any other information necessary for the Project Management Consultant to be able to prepare complete drawings recording details of the works as constructed. Test/Registers/Record, etc to be maintained at Site as per works manual 2007 of Bank of Baroda.

7.7. Safety of adjacent Structures of Works:

a) The Contractor shall provide and erect to the approval of the Employer/Architect/ Project Management Consultant such supports as may be required to protect efficiently all structures or works which may be endangered by the execution of the works or otherwise take such permanent measures as may be required by the Project Management Consultant to protect the structures or Works. The Contractor will be allocated an area for his plant, stores, and compound workshop and site offices and within the site.

b) **Work at Night:** If the contractor is required to work at night and/or on Sundays and holidays in order to complete the work within the time schedule the contractor shall provide and maintain at his own cost sufficient lights to enable the work to proceed satisfactorily without danger. Approaches to the site also shall be sufficiently lighted by the contractor. No extra payments will be made for night work. Prior intimation and approval should be taken from Employer through Architects/ PMC in this regard. c) Reporting of accidents to labour The contractor shall be responsible for the safety of persons employed by him on the works and shall report accidents to any of them whenever and wherever occurring on the works, to the employer who shall make every arrangement to render all possible assistance. This shall be without prejudice to the responsibility of the contractor under the insurance clause of the general conditions of contract.

7.8. Requisition of Materials:

The Bills of Quantities shall not be used as a basis for quantities of materials and the Contractor is entirely responsible for assessing the quantities of materials to be ordered. The employer is not bound to supply of any materials and EMPLOYER may reset the requisition of materials.

7.9. Power, Water & Other facilities:

The Contractor shall be responsible to provide within the scope of work all facilities necessary for performance of the work including (but not limited to) water, power, transportation, labour, tools, construction and testing equipment and machinery and land at or about the job site (s) for the Contractor's field offices, godowns, workshops and residential accommodation for Contractor's staff, quarry rights for raw material, borrow areas, access roads, and right (S) of way to or about the job site (s) and Contractor's office, godown, workshop accommodation, quarries and/or borrow area.

The EMPLOYER does not warrant or undertake the provision of any facility aforesaid or otherwise whatever to the Contractor, or assistance in obtaining/procuring the same or other assistance whatever for or in the performance or testing of the work and the Contractor shall not imply by conduct, expression or assurance or by any other means, any promise or obligations on the part of the EMPLOYER contrary to the provision hereof and any such promise or obligation understood by the Contractor shall not be binding upon the EMPLOYER.

Any assistance which the EMPLOYER renders to the Contractor in terms hereof or otherwise relative to the work by provision of any facility, water, power etc. as above shall not for any cause afford a basis or defence to the Contractor for any of his obligations under the contract, nor ground for extension of time for completion.

7.10. Procurement of materials:

a) The Contractor shall procure all materials by his efforts and at his own cost.

The Contractor shall not remove any materials and Ply Board from the site without a written authority of the Project Management Consultant on completion of the works. The contractor shall obtain the instructions of the controlling Authorities as to how the surplus materials if any, is to be disposed off. b) Ply / Board storage: The Contractor shall at his own cost erect and maintain a Ply /board storage/shed space at the site having water tight walls and roof. The shed should be capable of storing twenty (100 pieces) of board/ ply /laminated sheet.

7.11. Temporary Services:

The Contractor shall provide and maintain all temporary services on or about the site including providing cutter machines / Pressing machine / edge binding etc. for the execution of the works and shall remove them on completion as decided by Architect/ Project Management Consultant.

7.12. Unauthorized Persons:

No unauthorized persons are to be allowed on the site. The Contractor shall instruct all such persons to keep out and shall take steps to prevent trespass.

7.13. Keeping Site Clean and clearer:

During the progress of the works and when directed by the Architect/ Project Management Consultant the Contractor shall keep the site clear of all rubbish and debris including that which may be deposited on the site by any sub-contractors until the date of issue of certificate of Completion. The cost of keeping the site clean shall be deemed to have been included for in the rates.

On completion of the works, the Contractor shall at his own expense clear away and remove from the site not later than 7 days from the date of completion of works all constructional plant, surplus material, rubbish and temporary works of every kind and leave the entire site and works clean and in a workman like condition. In case of failure by the contractor, the employer under the advice of Architect/ Project Management Consultant will have the right to get the site cleared at the risk and cost of the contractor to the satisfaction of the Architect/ PMC/Employer.

7.14. Office Accommodation store for Contractor, Employer and Project Management Consultant on the site.

a) The Contractor shall erect and maintain entirely at his own expense offices for the Project Management Consultant, the Architect's representatives and for his own staff respectively at such places as the Architect shall indicate. These offices shall be provided by the contractor with furniture and light, toilet facilities etc.

b) The Contractor shall provide for all necessary **storage on the site in a specified area for all materials such as timber**, board, ply, laminate and other electrical fittings and such other material, which are likely to deteriorate by exposure to sun or rain. 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 herein.

c) All materials which are stored on the site such as ply, board, laminate etc. shall be stacked in such a manner as to facilitate rapid and easy checking of quantities of such materials.

7.15. Lighting for Works

The Contractor shall at all times provide approved lighting as required for the proper execution and supervision of the works at his own cost.

7.16. Labour Hutments

The contractor shall not be allowed to put up any hutments/temporary structures for accommodating his labour/staff. He shall be required to make his own arrangement elsewhere at his own cost. However, if local authorities so permit and subject to the Contractor arranging for such permission, some space at site which will not come in the way of the permanent construction, temporary construction facilities and offices may be provided to the Contractor at the discretion of the Employer for purely temporary bachelor accommodation or essential/core staff engaged on Emergency or essential services round the clock like security, fire fighting, concrete laying and curing with proper sanitary facilities.

7.17. Works Diary

The Employer shall keep a diary/Register on the site in which all his remarks, instructions, decisions and the essential details, of the work shall be recorded. The Contractor shall assist in keeping the diary by supplying daily information on the works as required by Employer/Architect/ Project Management Consultant.

7.18. Progress Report:

The Contractor shall submit regular weekly progress reports to the Employer/Architect / Project Management Consultant in a form as required by him which shall also include progress photographs of the works.

In addition, the contractors shall maintain site records/registers etc. as required and directed by the Architect/PMC/Employer.

7.19. Site Meetings: Progress and quality evaluation meetings will be held at the site every week. The Contractors' senior representative-in-charge of the project along with his site-in-charge and other staff as required participating in these meetings and ensuring all follow up actions.

7.20. Return of Plant:

The Contractor shall supply to the Employer a monthly return showing full particulars on a form, to be approved by him of the items of plant including location and state of each and the sections of the works on which they are employed. This return is to be presented on the 10th day of each month.

7.21. Contractor to Verify Site Measurements:

a) The Contractor shall check and verify all site measurements whenever requested by other specialists, Contractors or by nominated or other sub-contractor to enable them to prepare their own shop drawings and pass on the information with sufficient promptness as will not in any way delay the works. A copy of all such information passed on shall be given to the Project Management Consultant.

b) Measurement to be recorded before work is covered up: The contractor shall take joint measurements with the PMC's representative before covering up or otherwise placing beyond the reach of measurement any item of work. Should the contractor neglect to do so, the same will be uncovered at the contractor's expense or in default thereof, no payment or allowance shall be made for such work or the materials with which the same was executed. No claim for interim bill payment will be entertained unless the bill is accompanied with detailed measurements. c) Typographic or clerical errors

The Architect's clarifications regarding partially omitted particulars or typographical or clerical errors shall be final and binding on the Contractor.

7.22. Items not covered

a) If any item of work is ordered to execute which is not covered in the contract it will be paid for through deriving from analogous item of the contract and if such item is not available then as per valuation that would be derived on the basis of the actual cost of the materials and labour incurred in carrying out the said work, as specified and directed by Employer/Architect/PMC and as determined by the Employer, plus **15%** (Fifteen percent) to allow for Contractor's profit and overhead and other related costs.

b) Any work not carried out as per drawings issued for Execution and Specification and/or instructions or is defective in the opinion of the Architect/PMC shall be demolished and replaced by new work by the contractor to the satisfaction of the architect and/or consulting Engineer. If the Architect may allow such work to remain the contractor shall accept a reduction in the rate quoted by him and/or reduction in the total cost of such works as will be assessed and decided upon by the architect. The architect's decision in this matter shall be final and binding on parties, contractor and employer.

7.23. Contract Rates:

The Contract prices and variation rates shall remain firm till final completion of the work and shall be deemed to include all labour, materials, use of plant tools, temporary works and buildings, etc. insurance, trade tax, works contract tax,, local taxes and duties establishment charges, overhead, profit, supervision, transport, sampling, testing, shop drawing and other charges and every expense incurred in the proper and due execution, completion and maintenance of the works, and shall be in full satisfaction and discharge of every obligation and imposed upon him by the contract and **Except GST** nothing extra shall be payable unless so specifically stated in this contract.

7.24. Time of Completion & Progress of Works:

The whole of the work as stipulated shall be completed within the stipulated time period starting from the date of the written order by the Employer to commence the work. The work shall generally be preceded in accordance to agreed program of works. Time is the essence of the contract and the works must be completed within the time schedule as indicated in the appendix to the Tender. Any tender which disagrees with time schedule of construction and stipulates a longer period is liable to be rejected.

The Contractor shall take all special steps he thinks might be necessary to complete the work in the stipulated time including any special plant, equipment, additional quantity of shuttering and other materials, labour etc. and give detailed and specific indication of the same in his tender submission and include the cost thereof in his quoted rates.

7.25. Statutory Obligations, Notice, Fees and Charges:

i)

a) The Contractor shall comply with and give all notices required by any act, any instrument rule or order made under any Act, or of any regulation or bylaw of Municipal Corporation and other any local body or authority or of any agency which has any jurisdiction with regard to the works or with whose systems the same we are or will be connected (all requirements to be complied with being referred to in these

Conditions as the statutory requirements)

b) If the Contractor shall find any divergence between the statutory requirements and all or any of the contract documents or any variation instruction issued in accordance with these Conditions, he shall immediately give to the Employer/Architect a written notice specifying the divergence.

c) If the Contractor gives notice under paragraph (b) of this sub-clause or of Employer /Architect shall otherwise discover or receive notice of a Divergence between the statutory requirements and all or any of the contract documents or any variation instructions issued in accordance with these conditions, the Employer shall within 7 days of discovery or on receipt of a notice issue instructions in relation to the divergence.

d) If in any emergency compliance with paragraph (a) of this sub-clause requires the Contractor to supply materials or execute work before receiving instruction under paragraph (c) of this sub-clause the Contractor shall supply such limited materials and execute such limited work as are reasonably necessary to secure the statutory requirements.

e) The Contractor shall forthwith inform the Employer/ Architect/ Project Management Consultant of the emergency and of the steps that he is taking under this paragraph of these conditions.

f) Work executed and materials supplied by the Contractor under sub-paragraph (i) of this paragraph shall be deemed to have been executed and supplied pursuant to Employer instruction in accordance with these Conditions provided that the emergency arose because of a divergence between the statutory requirements and all or any of the documents referred to in these Conditions or any variations, instructions issued in accordance with these Conditions.

g) Provided that the contractor complies with paragraph (b) of this sub-clause, the Contractor shall not be liable to the Employer under this Contract if the works do not comply with the statutory requirements from the Contractor having carried out work in accordance with the documents referred to these Conditions.

ii) The Contractor shall pay and indemnify the Employer against liability in respect of any fees or charges (including any rates or taxes) legally demandable under any Act, any instrument rule or order made under any Act, law or any regulation or below of any local authority or of any statutory or agency in respect of works.

iii) It will be the contractor's sole responsibility and obligation to arrange for blasting license from the relevant authorities, if the excavation requires blasting. The contractor will have to store the blasting powder in a suitably constructed store as per regulation of the explosive department and local bodies.

7.26. Materials and Workmanship to be best of the respective kind

i) All materials, goods and workmanship shall as far as procurable be the best of the respective kinds and standards described in the Contract. ii) The Contractor shall upon the request of the Employer/ Architect/ Project Management Consultant furnish him with documentation to prove that the materials and goods comply with sub clause (1) of this condition. iii) The Employer may issue instructions in regard to the removal from the site of any work, materials or goods which are not in accordance with this Contract. In case the Contractor fails to do so in accordance with the time schedule laid down by the Employer, then the Employer will be at liberty to have these material moved out at the expense of Contractor. Ruling of Employer in this regard will be final and binding under the advice of the Architect.

7.27. Samples:

a) Apart from adhering to any special provision made in the specifications regarding submission of samples, the Contractor shall within 10 days of his receipt of Letter of Intent, provide to the Employer samples along with the detailed literature of all materials he proposes to use in the building irrespective of the fact that a specific make/material might have been stipulated. If certain items proposed to be used are of such nature that samples cannot be presented or prepared at the site, detailed literature/test certificate of the same shall be provided instead. Before submitting the samples/literature the Contractor shall satisfy himself that the material/equipment for which he is submitting the samples/literature meet with the requirement of the specification. The Employer/ Project Management Consultant shall check the samples and give his comments and/or approval to the same. Only when the samples are approved in writing by Employer he shall proceed with the procurement and installation of the same. The approved samples shall be signed by the Architect for identification and shall be kept on record at his office until the completion and acceptance of the work and shall be available at the site for inspection/comparison at any time. The Contractor shall keep with him a duplicate of such samples to enable him to process the matter. For items of work where the samples are to be made at the site, the same procedure shall be followed. All such samples shall be prepared at a place where it can be left undisturbed until the completion of the project.

The Architect shall give his comments/approval to the samples at his earliest convenience. Any delay that might occur in approving of the samples for reasons of its not meeting with the specifications shall be to the account of the Contractor.

b) Testing of concrete (Not Valid for this work):

The Contractor shall make his own arrangement for testing of the concrete cubes from time to time as required by the PMC/Architect and all the cost of testing and conveyance shall be borne by the Contractor. At least 6 cubes of 6" x 6" x 6" per 1000 Cft. of R.C.C. work must be taken as directed and tested. The PMC/Architect/Employer reserves the right to test the concrete at the cost of the contractor in the event of the contractor failing to do so.

All the testing of materials/works shall be as per CPWD frequency and contractor to bear all expenses in such regards. The MTC from manufacture will be submitted by Contractor for major items/materials to Bank.

c) Testing of work and materials:

The Contractor shall arrange to test materials/proportions of the material/works at his own cost in order to prove their soundness and quality. If after any such test the work is found, in the opinion of the Architect, to be defective or unsound, the contractor shall pull down and re-erect the same at his own cost.

d) Contractor will maintain all the Registers/Documents as per Bank's work manual and facilitate all cooperation to Architect to perform their duty to check/scrutiny etc for the same.

e) Treasure trove:

Should any treasure, fossils, minerals, or works of art of antiquarian interest be found during excavation or while carrying out works, the same shall be the property of the employer. The contractor shall give immediate notice to the Architect of any such discovery and shall hand over any such treasure to the employer on demand.

7.28. Approved Makes:

The specifications provide a list of approved makes of some materials specified. The tender price quoted shall cover for this aspect. Only when it is not possible to use any of the approved makes, either due to non availability or due to

technical reasons and the Contractor shall propose alternative materials and if found suitable these shall be approved by the Employer for construction.

7.29. Dismissal of Undesirable Persons:

The Employer may issue instructions requiring the dismissal from the works of any person employed thereon without assigning any reason. The decision of Employer in this regard will be final and binding.

7.30.

a) Access to the Works

The Employer/Employer's representative, Architect /Architect's Representative, Project Management Consultant/representatives and their nominees shall at all reasonable times have access to the works and to the workshops or other places of the Contractor or his sub-contractors/suppliers where work is being carried out for the Contract. When work is to be so carried out in workshops or other places of a sub-contractor the Contractor shall by a term in the sub-contract incorporate a similar right of access to those workshops or places for the Employer and their nominees and shall do all things reasonably necessary to make such right effective.

b) Facilities to other contractors:

The Contractor shall give full facilities and cooperation to all other contractors working on site such as, plumbing, electrical, lift erection etc. as directed by the Architect/ Project Management Consultant and shall arrange his program of work so as not to hinder the progress of other works. The decision of the architect/ Project Management Consultant on any point of dispute between the various contractors shall be final and binding on all parties concerned.

7.31. Employer/Architect's Instruction:

i) The Contractor shall forthwith comply with all instructions issued to him by the Employer/Architect/ Project Management Consultant in regard to any matter in respect of which the Employer/Engineer expressly empowered by these Conditions to issue instructions. If within seven days after receipt of a written notice from the Employer/Architect/ Project Management Consultant requiring compliance with an instruction the Contractor does not comply therewith, then the Employer may employ and pay other persons to execute any work whatsoever which may be necessary to give effect to such instruction and all cost incurred in connection with such action shall be recoverable from the Contractor by the Employer as a debt or may be deducted by him from any monies due or to become due to the Contractor under this Contract. ii) All instructions issued by the Employer/Architect/ Project Management Consultant shall be issued in writing. However any instruction issued orally shall be given immediate effect and shall be confirmed in writing by the Architect within three days.

7.32. Liquidated Damages:

If the Contractor shall fail to complete the works within the stipulated period of completion mentioned herein above, the Contractor shall be liable and shall pay to the Employer as pre-estimated damages at the rate indicated in the APPENDIX TO FORM OF TENDER. In case the non-completion is limited to certain items disciplines/sections which is not preventing the Employers to occupy and use the building effectively s decided by the Employer then the damages shall be limited to 200% of the cost of the particular item/discipline/section subject to the ceiling as indicated before.

7.33. Termination:

In the event of the Contractor failing to complete the works within the stipulated period of completion as mentioned hereof, the Employer may, notwithstanding anything contained to the contrary in the contract, terminate at any time the contract without being liable in any manner whatsoever to the Contractor, by giving 30 days notice in writing to the Contractor and proceed to complete or get completed the works which have remained incomplete/not done at the time of such termination at the risk and cost of the Contractor.

7.34. Contract Price

The contract prices as indicated in accepted tender value and as detailed in priced bill of quantities shall govern this aspect of the contract.

7.35. Preparation of building works for occupation and use on completion:

On completion of the work, the contractor shall inform the PMC/Architect in writing that he has finished the work and it is ready for the inspection. He will leave the entire possession of site neat and clean and ready and to the satisfaction of the Architect.

7.36. Insurance against third party risks:

On commencement of the work, the contractor shall take out and submit to the Employers a suitable insurance policy against third party risks. The limits of liability of this insurance shall be as follows:

- a) Contractor's all risk - 'CAR' policy for the value of contract price and necessary workmen compensation policy valued for the duration of work.
- b) Rs.35 Lakhs in respect of any one accident or series of accidents arising out of one event. Contractor shall take out third party insurance for 3 no. of such accidents.
- c) Rs.5,00,000/- in respect of any person.

7.37. All the work shall be carried out as per the detailed drawings and architect's instruction and in stages as desired by the architect.

CONTRACTORS LABOUR RULES – REGULATION (ANNEXURE 5)

8.1. Labour Rules

The Contractor shall at all times during the continuance of the Contract, comply fully with all existing Acts, regulations and bylaws including all statutory amendments and re-enactment of State or Central Government and other local authorities and any other enactments, notifications and acts that may be passed in future either by the State or the Central Government or local authority, including Indian Workmen's Compensation Act. Contract Labour (Regulation and Abolition) Act 1970 and Equal Remuneration Act 1976, Factories Act, Minimum Wages Act, Provident Fund Regulations, Employees Provident Fund Act, schemes made under the same Act and also Labour Regulations mentioned in Annexure A-I. Health and Sanitary Arrangement for Workmen, Insurance and other benefits and shall keep Employer indemnified in case any action is commenced by competent authorities for contravention by the Contractor. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated henceforth on the part of the Contractor, the Architect/Employer shall have the right to deduct from any money due to the Contractor, his amount of Performance Security or recover from the Contractor personally any sum required or estimated to be required for making good the loss or damage suffered by the Employer, responsibility in connection with the employees of the contractor, who shall, in no case, be treated as the employees of the Employer at any point of time.

8.2. Fair Wages:

8.2.1. The Contractor shall pay the labourers engaged by him on the work not less than fair wage which expression shall mean, whether for time or piecework, the respective rates of wages fixed by the local authorities as fair wages for the area payable to the different categories of labourers or those notified under the Minimum Wages Act for corresponding employees of the Employer, whichever may be higher.

8.2.2. The Contractor shall, notwithstanding the provisions of a contract to the contrary, cause to be paid a fair wage to labourers indirectly engaged on the Works, including any labour engaged by sub/contractors in connection with the said works as if the labourers had been directly employed by him.

8.3. Notices:

8.3.1. The Contractor shall before he commences the work, display, and correctly maintain in a clean and legible condition at a conspicuous place on the Site, notices in English and in a language spoken by the majority of the workers, stating therein the rate of wages which have been fixed as fair wages and the hours of work for which such wages are earned and send a copy of such notices to the Architect.

8.4. Record of wages etc.

The contractor shall maintain records of wages and other remuneration paid to his employees in such form as may be convenient and as per the requirements of the Employer/ Architect and the Conciliation Officer (central), Ministry of Labour Government of India, or such other authorized person appointed by the central or State Government and the same shall include the following particulars of each worker :

8.4.1. Name, worker's number and grade;

8.4.2. Rate of daily or monthly wage;

8.4.3. Nature of work on which employed;

8.4.4. Total number of days worked during each wage period;

8.4.5. Total, amount payable for the work during each wage period; All deductions made from the wage with details in each case of the ground for which the deduction is made;

8.4.6. Wage actually paid for each wage period.

8.4.7. The Contractor shall provide a Wage Slip for each worker, employed on the Works.

8.4.8. The Wage records and Wage Slips shall be preserved for at least 12 months after the last entry for Inspection of Wage Records.

8.4.9. The Contractor shall allow inspection of the aforesaid Wage Records and Wage Slips to the Architect/PMC and to any of his workers or to his agent at a convenient time and place after due notice is received, or to the Employer or any other person authorized by him on his behalf.

8.4.10. The Employer/Architect or any other person authorized by them on their behalf shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the Fair Wages Clause. He shall also have the Power to investigate into any complaint regarding any default made by the Contractor or sub-contractor in regard to such provision.

8.4.11. No party shall be represented by a legal practitioner in any investigation or inquiry under this Clause, unless Architect/Employer agree otherwise.

8.5. Safety Provisions:

The Contractor shall comply with all the precautions as required for the safety of the workmen by the I.L.O. Convention No. 62 as far as they are applicable to the Contract. The Contractor shall provide all necessary safety appliances, gears like goggles, helmets, masks, etc. to the workmen and the staff.

A. SCAFFOLDS

i) Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made either of good quality of wood or steel. The steps shall have a minimum width of 450mm and a maximum rise of 300 mm. Suitable hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 (1/4 horizontal and 1 vertical)

ii) Scaffolding or staging more than 4m. above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured, at least 1 m. above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

iii) Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4 m. above ground level or floor level, they shall be closely boarded and shall have adequate width and be suitably fenced as described in (ii) above.

iv) Every opening in the floor of a building or in a working platform shall be provided with suitable fencing or railing whose minimum height shall be 1m.

Wherever there are open excavations in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.

v) Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9m. in length while the width between side rails in rung ladder shall in no case, be less than 290mm. for ladder up to and including 3m. in length. For longer ladders this width shall be increased at least 20mm for each additional meter of length.

vi) A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to construction.

OTHER SAFETY MEASURES

vii) All personnel of the contractor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. Persons employed on metal cutting and grinding shall wear safety glasses.

viii) Adequate precautions shall be taken to prevent danger from electrical equipment. No materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.

EXCAVATION & TRENCHING (Not Valid for this work)

ix) All trenches, 1.25m. or more in depth shall at all times be supplied with at least one ladder for each 30m. in length or fraction thereof. The ladder shall be extended from bottoms of the trench to at least 1m. above the surface of the ground. Sides of trenches which are 1.5m or more in depth shall be stepped back to give suitable slope or securely held by timber bracing so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5m of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

x) The contractor shall take all measures on the site of the work to protect the public from accidents and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the contractor, be paid to compromise any claim by any such person.

DEMOLITION

xi) Before any demolition work is commenced and also during the process of the work:

- a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.
- b) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.
- c) All practical steps shall be taken to prevent danger to persons employed from the risk of fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

PERSONAL SAFETY EQUIPMENTS

xii) All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

- a) Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- b) Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.
- c) Those engaged in welding works shall be provided with welder's protective eyesight lids.
- d) Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- e) When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so. Opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
- f) The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead or any toxic material in any form. Wherever men above the age of 18 are employed on the work of such painting the following precautions should be taken:
 - g) No paint containing lead or lead products shall be used except in the form of paste or readymade paint. Paints like vinyl and epoxies having toxic fumes should be applied after following all precautions laid down by manufacturers.
 - i) Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
 - ii) Overalls shall be supplied by the contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.
 - xiii) When the work is done near any public place where there is risk of drowning all necessary equipments should be provided and kept 'ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

HOISTING MACHINES (not necessary)

xiv) Use of hoisting machines and tackle including their attachments anchorage and supports shall conform to the following standards or conditions:

1.
 - a) These shall be of good mechanical constructions sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.
 - b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from patent defects.
2. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
3. In case of every hoisting machine and of every chain ring hook, shackle shovel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.
4. In case of departmental machines, the safe working load shall be notified by the Engineer. As regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer whenever he brings any machinery to site of work and get it verified by the Engineer concerned.

xv) Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with efficient safeguards. Hoisting appliances should be provided with such means as will reduce to the minimum of the risk of any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energized, insulated mats, wearing apparel, such as gloves, sleeves and boots as may be necessary, should be provided. The workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.

xvi) All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.

Adequate washing facilities should be provided at or near places of work.

xvii) These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.

xviii) To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineers of the Department or their representatives.

xix) Notwithstanding the above clause from (i) to (xviii), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

8.6. First Aid:

At every workplace, there shall be maintained in a readily accessible place first aid appliances including an adequate supply of sterilized dressings and sterilized cotton wool as prescribed in the Factory Rules of the State in which the work is carried on. The appliances shall be kept in good order and, in large workplaces; they shall be placed under the charge of a responsible person who shall be readily available during working hours.

At large workplace, where hospital facilities are not available within easy distance of the works, First Aid Posts shall be established and be run by a trained compounder. Where large workplaces are remotely situated and far away from regular hospitals, an indoor ward shall be provided with one bed for every 250 employees.

Where large work place are situated in cities, towns or in their suburbs and no beds are considered necessary owing to proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to these hospitals. At other workplaces, some conveyance facilities shall be kept readily available to take injured person or persons suddenly taken seriously ill, to the nearest hospital. At large workplace, there shall be provided and maintained an ambulance room containing the prescribed equipment and in the charge of such medical and nursing staff as may be prescribed. For this purpose, the relevant provisions of the Factory Rules of the State Government of the area, where the work is carried on, may be taken as the prescribed standard.

8.7. Accommodation for Labour:

The Contractor shall during the progress of the Work provide, erect and maintain necessary temporary living accommodation and ancillary for labour at his own expenses to the standards and scales as approved by the Engineer.

8.8. Drinking Water:

In every workplace, there shall be provided and maintained at suitable places, easily accessible to labour, a sufficient supply of cold water fit for drinking. Where drinking water is obtained from an intermittent public water supply, each workplace shall be provided with storage where drinking water shall be stored. Every water supply storage shall be at a distance of not less than 15 meters from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well, which is within such proximity of latrine, drain or any other source of pollution, well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust-proof and water-proof. A reliable pump shall be fitted to each covered well. The trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

8.9. Washing and Bathing Places: Adequate washing and bathing places shall be provided separately for men and women. Such places shall be kept in clean and drained condition.

8.10. Latrines and Urinals:

Except in workplaces provided with water/flushed latrines connected with a water borne sewage system, all latrines shall be provided with receptacles on dry-earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. Receptacles shall be tarred inside and outside at least once a year.

Regulation 6 - Payment of Wages

- i) Wages due to every worker shall be paid to him direct. All wages should be paid in current coins or currency or in both preferably in electronic form.
- ii) Wages of every worker employed on the Contract shall be paid where the wage period is one week, within THREE days from the end of the Wage period, and in any other case before the expiry of the 7th day or 10th day from the end of the wage period according as the number of workers does not exceed 1,000 or exceeds 1,000.

NOTE: The term "Working Day" means a day on which the work on which the labour is employed is in progress.

Regulation 7 - Register of Workmen:

A register of workmen shall be maintained in the Form appended to the regulations and kept at the work site or as near to it as possible, and relevant particulars of every workman shall be entered therein within THREE days of his employment.

Regulation 8 - Employment Card:

The Contractor shall issue an employment card in the Form appended to these regulations to each worker on the day of work or entry into his employment. If a worker already has any such card with him issued by the previous employer, the Contractor shall merely endorse that Employment Card with relevant entries. On termination of employment, the Employment Card shall again be endorsed by the Contractor and returned to the worker.

Regulations 9 - Register of Wages, etc.:

- i) A Register of Wages cum Muster Roll in the Form appended to these regulations shall be maintained and kept at the Work Site or as near to it as possible.
- ii) A wage slip in the form appended to these regulations shall be issued to every worker employed by the Contractor at least a day prior to disbursement of wages.

PREAMBLE TO BILLS OF QUANTITIES

1.0 GENERAL

The contractor shall comply with all conditions as detailed in Volume – I.

Item description in bills of quantities is exhaustive but may not cover all items, trades, materials, labour, specifications, conditions etc. However contractor shall be responsible to read item description in conjunction with technical specifications, drawings and trade practices and is required to follow all requirements. Further description of item in BOQ, unless otherwise stated, includes, wherever necessary, conveyance and delivery handling, unloading, storing, fabrication, hoisting, scaffolding all labour for finishing to required shape and size, setting, fitting and fixing in position, straight cutting and waste, return of packings, disposal, cleaning and other incidental charges and/all applicable taxes and duties. Contractor must note that work has to be executed in different multistoried blocks and from 4th to 10th floor. Contractor must visit the site and study the situation prior to quoting the rates.

BOQ quantities are tentative and any changes will not allow the contractor to claim extra on the rates quoted.

Quantities stated in the item are not to be used for ordering of any material. Contractor shall verify quantities himself and order with suppliers shall be placed with required wastages. Copies of orders shall be forwarded to Incharge/Architect to verify date of order, supplier and materials ordered.

All materials to be used at the site shall be tested as per specifications or as per the IS. Testing shall be done at site and / or at approved laboratories as specified or as directed by the Incharge/Architect at the cost of contractor. Any defective or unapproved materials will be removed from site immediately at contractors' cost.

The contractor shall be responsible for protection of his own work and the work of other trades during the progress and till handover to the Employer..

6. The contractor shall note that space for storage at the site is limited and shall allow for phased delivery of material to site to overcome that problem.

7. Contractor shall provide, required rigid double legged steel scaffolding accessible at all locations with safety rails.

8. Area available at site is limited and contractor to organize himself for safe storage, handling, site offices, labour accommodation if any at his cost. No extra cost payable on this account.

9. Price of each item inserted shall be considered as self supporting and do not have any bearing on other items of the project.

The Contractor to take required insurance for safety of structures around.

The Works shall be measured as per method of measurement detailed in Technical Specification and preamble to Bills of Quantities of this contract. In absence of these details relevant SP 27 shall be followed or shall be measured as per instruction of the Incharge/Architect.

Technical Specification for Electrical Works

A) ELECTRICAL

Specification for Electrical Wiring

1. All electrical works should comply with Indian Electricity Act 2003 (latest) and Indian Electricity Rules 1956/Central Electricity Authority Rules 1977/Bare act 2001 and any latest version.
2. All electrical installations works shall conform to relevant Indian Standard Code of Practice and be carried out as per relevant safety Code of Practices. Guide for Safety Procedures in Electrical Work as per IS:5216/Pt.I & II/1982 shall be observed.
3. All components used in installation shall be of appropriate ratings of voltage, current and frequency.
4. The wiring work should be done as per CPWD norms for all schedule items.
5. All cables shall be terminated using suitable size, cable gland and packing.
6. The final connection to the equipment shall be through flexible connection in case of conduit wiring and also where equipment is likely to be moved back and forth.
7. The maximum distance of an isolator switch to any equipment which is separated from the main switch panel by a wall or partition or other barrier or is more then 20m from the distribution panel.
8. The branch line from main panel to sub distribution board shall be separate and should not criss-cross other line.
9. The entire installation shall be tested as per electricity rule prior to the commissioning of the complete installation and suitable test report furnishes by a competent and authorized person should be submitted. No extra payment shall be made to obtain the test report

1. SPECIFICATIONS & DRAWINGS

The work shall be executed in accordance with the specifications enclosed the working drawings the bill of quantities and instructions issued from time to time . Wherever these specifications are found wanting in any way the IS codes and CPWD specifications shall apply.

The specifications and schedule of items shall be considers as part of this contract and any work or material shown on schedule and not called for in the specification or vice versa shall be executed as if specially called for in both.

The drawing indicates the extent and general layout. The drawings are diagrammatic.

The work shall be installed as indicated in the drawing , however any minor changes found essential to coordinate the installation of this work with the other trades shall be made without any additional cost to the owner. The date given here in and on the drawings is as exact as could be secured , but its complete accuracy is not guaranteed. The drawings are for are for guidance of the Contractor and exact locations, distance and levels will be governed by the building. Contractor shall not be entitled to any extras for omission or defects in electrical drawings or when they conflict with the work. The Contractor shall be prepared working drawings and get it approved form the Architect/Consultant/Engineer-in-charge before commencing the work.

In case there is any conflict in the description of items in the bill of quantities and the technical specifications and the drawings. Then the interpretation of the scope of work of the particular item shall be made in the following order of preference

- i Description of the item in the Bill of Quantities
- ii Drawings issued for the work
- iii The specifications of the item

TENDER FOR INTERNAL ELECTRICAL WORKS TECHNICAL SPECIFICATIONS

WIRING**1. GENERAL**

Technical specifications in this section cover the Internal wiring installations comprising of : Wiring for lights and convenience socket outlets etc. in concealed/surface conduit/raceways Wiring for telephone outlets.
 Wiring for fire detection system
 Submain wiring.

2. STANDARDS AND CODES

The following Indian standard Specifications and Codes of Practice will apply to the equipment and the work covered by the scope of this contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and/ or IEC Standards shall be applicable.

BIS certified equipment shall be used as a part of the Contract in line with Government regulations. Necessary test certificates in support of the certification shall be submitted prior to supply of the equipment.

It is to be noted that updated and current Standards shall be applicable irrespective of those listed below

660/1100 V grade PVC insulated wires	IS 694:1990
Rigid steel conduit for electrical wiring	IS 9537:Part I 1980 IS 9537:Part II 1981
Accessories for rigid steel conduits	IS 3837 : 1990
Flexible steel conduits for electrical wiring	IS 3480 : 1990
Switch socket outlets	IS 4615 : 1990
Switches for domestic and similar purposes	IS 3854 : 1997
Boxes for the enclosure of electrical accessories	IS5133:PartsI&II 1969
Code of practice for personal hazard fire safety of buildings	IS 1644:1998
Code of practice for electrical installation fire safety of buildings	IS 1646:1997
Code of practice for electrical wiring installations	IS 732:1989

3. CONDUITS/ RACEWAYS**3.1 Steel Conduits**

These shall be of mild steel 16 gauge upto 32mm and 14 gauge for sizes above 32mm, electric resistance welded (ERW), electric threaded type having perfectly circular tubing. Conduits shall be press ion welded ERW And shall be fabricated from tested steel strips of thickness as per ISS by high frequency induction weld process. Weld shall be smooth and of consistent of high equality to ensure crack proof bending. The conduits shall be black enamel painted inside and outside in its manufactured form. Wherever so specified, the conduit shall be galvanized. All conduits used in this work shall be ISI embossed .

3.2 PVC Raceways

Wiring for power convenience socket outlets over work tables in laboratories shall be carried out in 100 mm x 50mm PVC raceways in surface on wall just above the laboratory table top as directed by Engineer in charge. The raceway shall be fabricated from superior quality engineering plastics and shall be complete with all standard accessories like couplers, end caps, bents, tees and mounting frames suitable for fixing modular wiring accessories. The raceway and accessories shall be as described in the Schedule of Quantities. Wiring upto the raceway shall be brought in MS conduit and approved adapter box to connect the conduit to the raceway shall be provided. Combined 6/16 amp modular switch socket outlets shall be provided on the raceway at modular intervals or as indicated in layout drawings. Each 6/16 amp outlet shall be wired to a separate circuits in the raceway shall be bunched separately. Installation of the raceway wiring system shall be carried out as per manufacturers recommendations.

3.3 Steel Conduit Connections

Connections between steel conduits shall be with screwed couplers of approved quality and finish, ensuring screwed metal to metal contact. Length of threads shall be as per ISS and sufficient to accommodate pipes to full threaded portion of couplers or accessories. Threads and sockets shall be free from grease and oil. Conduits shall be connected to outlet boxes by means of MS hexagon check-nuts fixed both inside and outside the box. Conduit edges shall be free of burrs and provided with screwed PVC bushes to avoid damage to insulation of conductors while pulling them to the conduits. Connections between MS and PVC conduits, if required, shall be through a junction box and never directly.

3.4 Bends

Large right angle bends (more than 75 mm radius) or non right angle bends in conduit runs shall be made by means of conduits bending machines carefully so as not to cause any crack in the conduit. Small right angle bends in conduits runs can be made by standard conduit accessories (solid/inspection bends/elbows) no run of conduits shall have more than four right angle bends from outlet to outlet. Bends in multi runs of conduits shall be parallel to each other and neat to appearance, maintaining the same distance as between straight runs of conduits.

3.5 Conduit Accessories

3.5.1 Standard accessories

Heavy duty black enamel painted standard conduit fittings and accessories like standard / extra-deep circular boxes, looping in boxes, junction boxes, normal/ inspection bends, solid / inspection elbows, solid / inspection tees, couplers, nipples, check nuts, earth clip, ball socket joints etc. shall be of superior quality and of approved makes. Heavy duty covers screwed with approved quality screws shall be used. Superior quality screwed PVC buses shall be used Samples of all conduits fittings and accessories shall be got approved by Owners / Architects before use.

3.5.2 Fabricated accessories

Where ever required, outlet / junction boxes of required sizes shall be fabricated from 1.6 mm thick MS sheets excepting ceiling fan outlet boxes which shall be fabricated from minimum 2 mm thick sheets. The outlet boxes shall be of approved quality, finish and manufacture. Suitable means of fixing connectors etc., if required, shall be provided in the boxes. The boxes shall be protected from rust by zinc phosphate primer process. Boxes shall be finished with minimum 2 coats of enamel paints of approved colour. A screwed brass stud shall be provided in all boxes as earthing terminal.

3.5.2.1 Outlet Boxes For Light Fittings.

These shall be minimum 75mm x 75mm x 50mm deep and provided with required number of threaded collars of conduit entry. For ceiling mounted florescent fittings, the boxes shall be provided 300 mm off center for a 1200 mm fitting and 150 mm off center for a 600 mm fitting so that the wiring is taken directly to the down rod, 3 mm thick perspex/hylam sheet cover of matching colour shall be provided.

3.5.2.2 Outlet Boxes For Ceiling

Outlet boxes for ceiling fans shall be fabricated from minimum 2mm thick MS steel. The boxes shall be hexagonal in shape of minimum 100mm depth and 60mm sides. Each box shall be provided with a recessed fan hook in the form of one 'U' shaped 15mm dia rod welded to the box and securely tied to the top reinforcement of the concrete slab for a length of minimum 150 mm on either side, 3 mm thick perspex/hylam sheet cover of matching colour shall be provided.

3.5.3 Boxes For Modular Wiring Accessories

3.5.3.1 Switch Boxes-Modular Type

Switch boxes suitable to house modular type switches of required ratings, and fan regulators as required shall be provided. In case the number of switches in one box is not tallying with that available in standard manufacturer, the box accommodating the next higher of switches shall be provided without any extra cost. In case fan regulator/regulators is/are to be provided at a later dated, suitable provision for accommodating such regulators shall be made in the switch boxes and blank of covers shall be provided without any extra cost.

Switch boxes shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws leaving ample space at the back and on the side for accommodating conductors, check-nuts and screwed bushes at conduit entries etc.. The grid plates and MS boxes shall be fitted with a brass earth terminal. Boxes shall be attached to conduits by means of check-nuts on either sides of their walls. Moulded front covers made from high impact resistant and ultra violet stabilised engineering plastics shall be fixed by means of counter sunk chromium plated brass machine screw. No timber shall be used for any supports. Switch boxes shall be located with bottom at 1200mm above floor level unless otherwise indicated.

3.5.3.2 Modular Type Boxes For Socket / Telephone / Call Bell Outlets

Outlet boxes shall be suitable for housing modular type switches socket outlets / telephone outlets / buzzers and any other outlet as required. These shall be so designed that accessories are mounted on a grid plate with tapped holes for brass machine screws leaving ample space at the back and on the sides for accommodating conductors, check nuts and screwed bushes at conduit entries etc.. The grid plates and MS boxes shall be fitted with a brass earth terminal. These shall be attached to conduits by means of check nuts on either sides of their walls. Moulded front covers made from high impact resistant, flame retardant and ultra violet stabilized engineering plastics shall be used to mount the outlets and shall be fixed to the outlet MS boxes by means of counter sunk chromium plated brass machine screws. No timber supports shall

be used. Boxes shall be located at skirting level or bottom at 1200mm from floor or inside raceways on laboratory work table., as indicated in drawings and / or as directed.

3.6 Cross Section

The conduits shall be of ample sectional area to facilitate simultaneous drawing of wires and permit future provision also. Total cross section of wires measured overall shall not normally be more than half the area of the conduit. Maximum number of PVC insulated 660/1100 Voltage grade copper conductor cable conforming to IS - 694 - 1990 as per table give below.

Maximum no. of PVC insulated 660/1100 V grade aluminium / copper Conductor cable conforming to IS : 694 - 1990

Note :

1. The above table shows the maximum capacity of conduits for a simultaneous drawing in of cables
2. The columns headed 'S' apply to runs of conduits which have distance not exceeding 4.25 m between draw boxes and which do not deflect from the straight by an angle of more than 15 degrees. The columns headed 'B' apply to runs of conduit which deflect from the straight by an angle of more than 15 degrees.
3. Conduits sizes are the nominal external diameters.

4. WIRES

Wiring shall be carried out with PVC insulated 660/1100 volt grade unsheathed single core wires with electrolytic annealed stranded copper (unless otherwise stated) conductors and conforming to IS 694/1990. All wire rolls shall be ISI marked. All wires shall bear manufacturers label and shall be brought to site in new and original packages. Manufacturers certificate certifying that wires brought of site are of their manufacture shall be furnished as required.

5. COAXIAL CABLES

The coaxial cables shall be of videband type with operation upto 300 MHz capability. Aging resistance shall comply with DIM 472.52 part 2 e.i. maximum 5% increase in attenuation at 200 MHz measured by artificial aging (14 days at 80°C) cables shall meet all exceed following specifications.

Center core Dia	0.8 mm
Diaelectric Dia	4.8 mm
Dielectric	PE
Outer Conductor Dia	5.4 mm
Outer Dia	7.0 mm
Bending radius	more than 30mm
Impedance	75ohms
D.C. Resistance	50 ohms/Km
Screening factor	more than 50
Attenuation	
50MHz	6.5
100 Mhz	9
200 Mhz	13
300 Mhz	16

6. LAYING OF CONDUITS

- Conduits shall be laid either recessed in walls and ceilings or on surface on walls and ceilings or partly recessed partly on surface, as required.
- Same rate shall apply for recessed and surface conduiting in this contract.
- Stranded copper conductor insulated wire of size as per schedule of quantities shall be provided in entire conduiting for loop earthing.
- GI wire of suitable size to serve as a fish wire shall be left in all conduit runs to facilitate drawing of wires after completion of conduiting.

6.1 Recessed Conduiting

Conduits recessed in concrete members shall be laid before casting in the upper portion of slabs or otherwise as may be instructed, so as to embedded the entire run of conduits and ceiling outlet boxes with a cover of minimum 12mm concrete. Conduits shall be adequately tied to the reinforcement to prevent displacement during casting at intervals of maximum 1 meter. No reinforcement bars shall be cut fix the conduits. Suitable flexible joints shall be provided at all locations where conduits cross expansion joints in the building.

Conduits recessed in brick work shall be laid in chases to be cut by electrical contractor in brick work before plastering. The chases shall be cut by a chase cutting electric machine. The chases shall be of sufficient width to accommodate the

required number of conduits and of sufficient depth to permit full thickness of plaster over conduits. The conduits shall be secured in the chase by means of heavy duty pressed steel clamps screwed to MS flat strip saddles at intervals of maximum 1 meter. The chases shall then be filled with cement and coarse sand mortar (1:3) and properly cured by watering. Entire recessed conduit work in concrete members and in brick work shall be carried out in close coordination with progress of civil works. Conduits in concrete members shall be laid before casting and conduits in brick work shall be laid before plastering. Should it become necessary to embedded conduits in already cast concrete members, suitable chase shall be cut in concrete for the purpose. For minimizing this cutting. Conduits of lesser diameter than 25 mm and outlet boxes of lesser depth than 50mm could be used by the contractor for such extensions only after obtaining specific approval from Architects/Owners. For embedding conduits in finished and plastered brick work. The chase would have to be made in the finished brick work. After fixing conduit in chases, chases shall be made good in most workmanlike manner to match with the original finish.

Cutting chases in finished concrete or finished plastered brick work for recessing conduits and outlet boxes etc. shall be done by the contractors without any extra cost.

6.2 Surface Conducting

Wherever so desired conduit shall be laid in surface over finished concrete and /or plastered brick work suitable spacer saddles of approved make and finish shall be fixed to the finished structural surface along the conduit route at intervals not exceeding 600mm . Holes in concrete or brick work for fixing the saddles shall be made neatly by electric drills using masonry drill bits. Conduits shall be fixed on the saddles by means of good quality heavy duty MS clamps screwed to the saddles by counter sunk screws. Neat appearance and good workmanship of surface conducting work is of particular importance. The entire conduit work shall be in absolute line and plumb.

6.3 Fixing of conduit fittings and accessories

For concealed conduiting work, the fittings and accessories shall be completely embedded in walls/ceilings leaving top surface flush with finished wall/ceiling surface in a workman like manner.

Loop earthing wire shall be connected to a screwed earthstead inside outlet boxes to make an effective contact with the metal body.

6.4 Painting and Colour coding of conduits

Before laying, conduits shall be painted specially at such places where paint has been damaged due to vice or wrench grip or any other reason.

If so specified, surface conduits shall be provided with 20mm wide and 100mm long colour coding strips as below

Use	Code colour
Low voltage	Grey
Fire alarm	Red
Telephone	Black
PA system	Brown
Earthing system	Green
Control system lighting	Purple

6.5 Protection Conduits

To safeguard against filling up with mortar/plaster etc. all the outlet and switch boxes shall be provided with temporary covers and plugs which shall be replaced by sheet/plate covers as required. All screwed and socket joints shall be made fully water tight with white lead paste.

6.6 Cleaning of Conduit Runs

The entire conduit system including outlets and boxes shall be thoroughly cleaned after completion of erection and before drawing in of cables.

6.7 Protection Against Dampness

All outlets in conduit system shall be properly drain and ventilated to minimize chances of condensation/sweating. **6.8 Expansion Joints**

When crossing through expansion joints in buildings. The conduit sections across the joint shall be though approved quality heavy duty metal flexible conduits of the same size as the rigid conduit.

6.9 Loop Earthing

Loop earthing shall be provided by means of insulated stranded copper conductor wires of sizes as per Schedule of Quantity laid along with wiring inside conduits for all wiring outlets and sub-mains Earthing terminals shall be provided inside all switch boxes etc.

6. LAYING AND DRAWING OF WIRES

Bunching of Wires

Wires carrying current shall be so bunched in conduits that the outgoing and return wires are drawn into the same conduit. Wires originating from two different phases shall not be run in the same conduit.

Drawing of Wires

The drawing of wires shall be done with due regard to the following precautions:-

- No wire shall be drawn into any conduit, until all work of any nature, that may cause injury to wire is complete. Burrs in cut conduits shall be smoothen before erection of conduits. Care shall be taken in pulling the wires so that no damage occurs to the insulation of the wire. Approved type bushes shall be provided at conduit terminations.
- Before the wires are drawn into the conduits, conduits shall be thoroughly cleaned of moisture, dust dirt or any other obstruction by forcing compressed air through the conduits if necessary.
- While drawing insulated wires into the conduits, care shall be taken to avoid scratches and kinds which cause breakage of conductors.
- There shall be no sharp bends.
- The contractor shall , after wiring is complete , provide a blank metal sheet/sunmica plate on all switch/ outlet/ junction boxes for security and to ensure that wires are not stolen till switches/ outlets etc. are fixed at no extra cost the contractor shall be responsible to ensure that wires and loop earthing conductors are not broken and stolen. In the event of the wire been partly/ fully stolen, the contractor shall replace the entire wiring along with loop earthing at no extra cost to the Owners. No joint of any nature whatsoever shall be permitted in wiring and loop earthing.

Termination/Jointing of Wires

- Sub-circuit wiring shall be carried out in looping system. Joints shall be made only at distribution board terminals, switches/buzzers and at ceiling roses/connectors/lamp holders terminals for lights/fans/socket outlets. No joints shall be made inside conduits or junction/draw/ inspection boxes.
- Switches controlling lights, fans or socket outlets shall be connected in the phase wire of the final sub circuit only. Switches shall never be connected in the neutral wire.
- Wiring conductors shall be continuous from outlet to outlet. Joints where unavoidable, due to any special reason shall be made by approved connectors. Specific prior permission from Architect/Owners in writing shall be obtained before making such joint.
- Insulation shall be shaved off for a length of 15mm at the end of wire like sharpening of a pencil and if shall not be removed by cutting it square or wringing.
- Strands of wires shall not be cut for connecting terminals. All strands of wires shall be twisted round at the end before connection.
- Conductors having nominal cross sectional area exceeding 4 sq mm shall always be provided with crimping sockets.
- At all bolted terminals, brass flat washer of large area and approved steel spring washers shall be used.
- Brass nuts and bolts shall be used for all connections.
- The pressure applied to tighten terminal screws shall be just adequate, neither too much no too less.
- Switches controlling lights, fans socket outlets etc. shall be connected to the phase wire of circuits only.
- Only certified valid license holder wiremen shall be employed to do wiring /jointing work.

Load Balancing

Balancing of circuits in three phase installation shall be planned before the commencement of wiring and shall be strictly adhered to.

Colour Code of Conductors

Colour code shall be maintained for the entire wiring installation – red, yellow, blue for three phases, black for neutral and green for earth.

MEASUREMENT AND PAYMENT OF WIRING

Wiring for lights, fans convenience socket outlets and telephone outlets etc. shall be measured and paid for on POINT BASIS as itemized schedule of quantities and as elaborated as below unless otherwise stated.

Primary and Secondary light point wiring

In respect of group control of lights (more than one light controlled by one switch or MCB), wiring upto the first light in the group shall be measured and paid for as a primary light point. Wiring for other lights looped in one group for switch controlled as also MCB controlled lights shall be measured and paid for as secondary light points. Primary light points for switch controlled lights shall include the cost of control switch whereas primary light points controlled by MCBs shall not include the switch cost. The cost of MCB controlling such lights shall not be included in the primary light point rate since the MCB shall be paid for in the item of DB.

The point wiring basis shall assume average wiring length and average conducting length per point based on parameters stipulated in para 8.2 below. The average wiring length and average conducting length forming the basis of point wiring payment, shall take at the electrical layouts of the entire project into consideration. Tenderers are advised to seek clarifications, if they so desire, on this aspect before submitting their tenders. No claim for extra payment on account of electrical layouts in part or whole of the project requiring larger average wiring and conducting length per point, whether specifically shown in tender drawings or not, shall be entertained after the award of contract.

Parameters : Wiring shall be carried out as per following parameters in recessed / surface conduit system.

- Only looping system of wiring shall be adopted throughout. No joints excepting at wiring terminals shall be permitted.
- All accessories shall be flush type unless otherwise stated
- For estimation of load, following loads per point shall be assumed.

Light points	100 Watts
6 amps socket outlet points	100 Watts
Fan points	60 Watts
Exhaust fan points	300 Watts or as specified
16 amp socket outlet points	1000 Watts

- Lights, fans and 6 amp socket outlets may be wired on a common final such circuit. Such circuit shall not normally have more than a total of ten lights, fans or socket outlets or a load of 800 watts whichever is lesser.
- Power circuits shall normally have maximum one 16amps socket outlet unless otherwise stated. Separate circuit shall be run for each geyser, kitchen equipment, window air conditioners and similar appliances.
- Wiring rates shall include painting of conduits and other accessories as required.
- Wiring rates shall include cleaning of dust, splashes of colour wash or paint from all fixtures , fans fittings etc. at the time of taking over of the installation.
- Wiring rates shall include blanking of outlet boxes to prevent damage/pilferage of wires as elaborated in para 7.2

Definitions

Wiring for Lights

Primary Light Points : Wiring for primary light points, as defined in para 8.1 above shall commence at the Distribution Board terminals and shall terminate at the ceiling rose/connector in ceiling box/lamp holder via the control switch (for switch controlled lights). Rates for primary light point wiring shall be deemed to be inclusive of the cost of entire material and labour require for completion of primary light point thus defined including:

- Recessed/ surface conducting system with all accessories, junction/draw/inspection boxes, bushes, check nuts etc. complete as required,
- Wiring with stranded copper conductor PVC insulated 660/1000 volt grade wires including terminations etc. complete as required.
- Control switch with switch box and cover plate of specified type including fixing screws, earth terminal etc. complete as required. Cost of this switch is applicable only for switch controlled points. This cost shall not be applicable for DB controlled points. □ Loop earthing with insulated copper wires.

Secondary Light points :

- Secondary light points, as defined in para 8.1 above, shall cover the cost of interconnection wiring between group controlled light fittings and shall be deemed to be inclusive of the cost of entire materials and labour required for completion of the secondary light point thus defined including.
- Recessed/surface conducting system with all accessories, junction/draw/inspection boxes, bushes, check nuts etc. complete as required,
- Wiring with stranded copper conductor PVC insulated 600/1000 volt grade wires including terminations etc. complete as required.
- Loop earthing with insulated copper wires.

Wiring for Ceiling Fans

Wiring for ceiling fan points shall be same as for primary light points and shall, in addition, include ceiling outlet box with recessed fan hooks and provision in the switch box for mounting the fan regulator.

Wiring for Exhaust Fans

Wiring for exhaust fan points shall be same as for primary light points and shall in addition include cost of providing a 3/5 pin 6 amp socket outlet near the fan and a 6 amp. Control switch at convenient location near the room entry.

Wiring for Call Bell Points

Wiring for call bell points shall be the same as for primary light points and shall in addition include the cost of a call bell/buzzer of approved type and make in the required location and a call bell in lieu of the control switch at a convenient location as required.

Wiring for Telephone Outlets

Wiring for telephone outlets points shall include the entire wiring and conduiting from the telephone tag block to the telephone outlet including the telephone outlet complete as required and as itemized in the Schedule of Quantities

8.3.6 Wiring for convenience Socket Outlets

3/5 pin 6 amps and 3/6 pin 16 amps single phase switched convenience socket outlets shall be provided in the building as indicated in the layout drawings. In addition, combined 3 pin 6/ 16 amps socket outlets at modular intervals in special PVC raceway over the work tables in laboratories shall be provided. Wherever required, 20/32/50 amps single phase and 32/50 amps 3 phase outlets shall also be provided.

Wiring for 3/5 pin 6 amps convenience socket outlets

Point wiring for 3/5 pin 6 amps socket outlets (in locations other than over the laboratory work tables) on point wiring basis shall be the same as primary light point defined in para 8.3.1 and shall in addition include 3/5 pin 6 amp socket outlet with 6 amp control switch in MS box with cover including loop earthing of the third pin complete as required as itemized in scheduled of quantities.

Wiring for 3/6 pin 16 amps convenience socket outlets Point wiring for 3/6 pin 16 amps convenience Socket outlets (in locations other than over the laboratory work tables) on point wiring basis shall be the same as primary light point defined in para 8.3.1 and shall in addition include 3/6 pin 16 amp socket outlet with 16 amp control switch in MS box with cover including loop earthing of the third pin complete as required as itemized in scheduled of quantities.

Wiring for combined 3 pin 6/16 amps socket outlets in laboratories Wiring for 3 pin 6/16 amp combined socket outlets in existing PVC raceways (provided over laboratory work tables) on point wiring basis shall include the cost of wiring from DB terminals to the outlets along with loop earthing of the earth pin and the switched combination 6/16 amp outlet with 16 amp control switch housed in the existing raceway, as indicated in layout drawings and as itemized in schedule of quantities. PVC raceway/conduit required for this wiring shall be paid extra as itemized in the schedule of quantities.

Wiring for special socket outlets

In addition to the above, special convenience outlets of 20/32/50 amps single phase and 32/50 amps three phase, required in few locations as indicated in the layout drawings, shall be paid for on linear basis as itemized in schedule of quantities. Outlets only shall be paid separately in numbers as per actuals. Wiring alongwith loop earthing shall be paid separately on running meter basis and conduiting / PVC raceway shall be paid separately on running meter basis.

9. ROUTINE AND COMPLETION TESTS

9.1 Installation Completion Tests

At the completion of the work, the entire installation shall be subject to the following tests :

1. Wiring continuity test
2. Insulation resistance test
3. Earth continuity test
4. Earth resistivity test

Besides the above, any other test specified by the local authority shall also be carried out. All tested and calibrated instruments for testing, labour, materials and incidentals necessary to conduct the above tests shall be provided by the contractor at his own cost.

9.2 Wiring Continuity Test

All wiring systems shall be tested for continuity of circuits short circuits and earthing after wiring is completed and before installation is energized.

9.3 Insulation Resistance Test

The insulation resistance shall be measured between earth and the whole system conductors, or any section thereof with all fuses in place and all switches closed and except in concentric wiring all lamps in position of both poles of the installation otherwise electrically connected together, a direct current pressure of not less than twice the working pressure provided that it does not exceed 1100 volts for medium voltage circuits. Where the supply is derived from AC three phase system, the neutral pole of which is connected to earth, either direct or through added resistance, pressure shall be

deemed to be that which is maintained between the phase conductor and the neutral. The insulation resistance lower than one mega ohm.

The insulation resistance shall also be measured between all conductors connected to one phase conductor of the supply and shall be carried out after removing all metallic connections between the two poles of the installation and in those circumstances the insulation shall not be less than that specified above.

The insulation resistance between the frame work of housing of power appliances and all live parts of each appliance shall not be less than that specified in the relevant standard specification or where there is no such specification, shall not be less than half a mega ohm or when PVC insulated cables are used for wiring 12.5 mega ohms divided by the number of outlets. Where a whole installation is being tested a lower value than that given by the above formula subject to a minimum of 1 Mega ohms is acceptable.

9.4 Testing of Earth Continuity Path

The earth continuity conductor including metal conduits and metallic envelopes of cable in all cases shall be tested for electric continuity and the electrical resistance of the same along with the earthing lead but excluding any added resistance of earth leakage circuit breaker measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

9.5 Testing of Polarity of Non-Linked Single Pole Switches

In a two wire installation a test shall be made to verify that all non-linked single pole switches have been connected to the same conductor throughout, and such conductor shall be labeled or marked for connection to an outer or phase conductor or to the non-earthed conductor of the supply. In the three or four wire installation, a test shall be made to verify that every non-linked single pole switch is fitted to one of the outer or phase conductor of the supply. The entire electrical installation shall be subject to the final acceptance of the Architect as well as the local authorities.

9.6 Earth Resistivity Test

Earth resistivity test shall be carried out in accordance with IS Code of Practice for earthing IS 3043.

9.7 Performance

Should the above tests not comply with the limits and requirements as above the contractor shall rectify the faults until the required results are obtained. The contractor shall be responsible for providing the necessary instruments and subsidiary earths for carrying out the tests. The above tests are to be carried out by the contractor without any extra charge.

9.7.1 Tests And Test Reports

The contractor shall furnish test reports and preliminary drawings for the equipment to the Architect/owners for approval before commencing supply of the equipment. The contractor should intimate with the tender the equipment intended to be supplied with its technical particulars. Any test certificates etc. , required by the local Inspectors or any other Authorities would be supplied by the Contractor without any extra charge.

TECHNICAL SPECIFICATIONS

EARTHING

1. GENERAL

All the non-current carrying metal parts of electrical installation shall be earthed properly. All metal conduits, trunking cable sheaths, switchgear, distribution fuse boards, light fittings and all other parts made of metal shall be bonded together and connected by means of specified earthing conductors to an efficient earthing system . All earthing shall be in conformity with Indian Electricity Rules.

The Earthing System shall in totally comprise the following:

- a) Earth Electrodes
- b) Earthing Leads
- c) Earth Conductors

All three phase equipment shall have two separate and distinct body earths and single phase equipment shall have a single body earth.

2. STANDARDS - All equipments components, materials and entire work shall be carried out in conformity with applicable and relevant Bureau of Indian Standards and Codes of Practice, as amended upto date and as below. In addition, relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall also apply. Wherever appropriate Indian Standards are not available, relevant British and / or IEC Standards shall be applicable.

Equipments certified by Bureau of Indian Standards shall be used in this contract in line with government regulations. Test certificates in support of this certification shall be submitted, as required.

It is to be noted that updated and current standards shall be applicable irrespective of dates mentioned along with ISS's in the tender documents.

3. EARTHING MATERIAL

Materials of which the protective system is composed shall be resistant to corrosion or be adequately protected against corrosion. The material shall be as specified in the schedule of quantities and shall comply to the following requirements :

- Copper- when solid or stranded copper wire is used it shall be of the grade ordinarily required for commercial electrical work generally designated as being of 98% conductivity when annealed, conforming to Indian standard specifications.
- Galvanized Steel – Galvanized steel used shall be thoroughly protected against corrosion by hot dipped Zinc coating. The material coating shall withstand the test specified in IS 2309:1969
- The strips to be used shall be in maximum lengths available as manufactured normally avoiding unnecessary joints.

4. EARTH ELECTRODES

- Plate Earth Electrode- The plate electrodes shall be of copper/ GI as called for in the schedule of quantities. The minimum dimensions of the electrodes shall be 600mm x 600mm Thickness of copper electrodes shall not be less than 3mm and of GI electrodes not less than 6mm. The electrode shall be buried in ground with its face vertical and top not less than 4 meters below ground level.
- Earth Electrode Pit Method of Installing Watering Arrangement In the case of plate earth electrode, a watering pipe of 20mm dia of medium class G.I. Pipe shall be provided and attached to the electrode. A funnel with mesh shall be provided at the top of this pipe for watering the earth. The watering funnel attachment shall be housed in masonry enclosure of not less than 1000 x 500 x 600mm A precast RCC frame & cover shall be suitably embedded in the masonry enclosure.

Location of Earth Electrode

The following guidelines shall be followed for locating the earth electrodes An earth electrode shall not be situated less than 5 meters from any building.

The excavations for electrode shall not affect the column footings or foundations of the buildings. In such cases electrode may be further away from the building.

The location of the earth electrode shall be such where the soil has reasonable chance of remaining moist, as far as possible.

Entrances, pavements and road ways shall not be used for locating the earth electrode.

Number of Earth Electrodes

In all cases the relevant provision of rule 33, 61 & 67 of the Indian Electricity Rules 1956 as amended shall be complied with. Metallic covers or supports of all medium or H.T. apparatus or conductors shall , in all cases be connected to not less than two separate and distinct earth electrodes.

5. EARTHING LEADS

The strip earthing leads shall be connected to the Earth Electrode at one end and to the metallic body of the main equipment at the other end. The earthing lead shall connect to the earthing network in the installation.

- Earthing Lead Sizes

Strip earthing leads shall be of copper / GI and as per specifications.

- Earthing Lead Installation

The length of buried strip earthing lead shall be not less than 15 metres and shall be buried in trench not less than 0.5m deep.

If conditions necessitates use of more than one earthing lead they shall be laid as widely distributed as possible preferably in a single straight trench or in a number of trenches radiating from one point.

- Method of connecting earthing Lead to Earth Electrode

In the case of plate earth electrode the earthing lead shall be securely bolted to the plate with two bolts, nuts checknuts and washers as required by IS 3043 : 1987.

All materials used for connecting the earth lead with electrode shall be GI in case of GI Pipe and GI plate earth electrodes or tinned brass in case of copper plate electrode.

- Protection of Earthing Lead

The earthing lead from electrode onwards shall be suitably protected from mechanical injury and corrosion by a 15 mm dia GI pipe in case of wire and 100/40 mm dia medium class GI pipe.

The portion the G.I. pipe within ground shall be buried at least 30cm deep (to be increased to 60cm in case of road crossing or pavements). The portion within the building shall be recessed in walls and floors to adequate depth.

6. EARTHING CONDUCTORS

Earthing conductors shall form the earthing network throughout the installation for earthing of all non-carrying metal parts.

Connection of Earthing Conductors

- Main earthing conductor shall be taken from the earth connections at the main switch boards to all other switchboards in the network.
- Sub-mains earthing conductor shall run from the main switch board to the sub distribution boards and to the final distribution boards.
- Loop earthing conductors shall run from the distribution boards and shall be connected to any point on the main/sub-main earthing conductor, or its distribution board or to an earth leakage circuit breaker.
- Metal conduits, cable sheathing and armouring shall be earthed at the ends adjacent to switch boards at which they originate, or otherwise at the commencement of the run by an earthing conductor in effective electrical contact with cable sheathing. Switches, accessories, lighting fitting etc shall be effectively connected to the loop earthing Conductor. These though rigidly secured in effective electrical contact with a run of metallic conduit shall not be considered earthed, even though the run of metallic conduit is earthed.

Earthing Conductor Installation

- The earthing conductors inside the building wherever exposed shall be properly protected from mechanical injury by running the same in GI pipe of adequate size.

Joints shall be riveted and brazed in approved manner.

Sweated lugs of adequate capacity and size shall be used for termination. Lugs shall be bolted to the equipment body to be earthed after the metal body is cleaned of paint and other oily substances and properly tinned.

- Sizing of Earthing Conductors

All fixtures, outlet boxes and junction boxes shall be earthed with Bare copper wires as specified.

All 3 phase switches and distribution boards upto 60 amps rating shall be earthed with 2 Nos. distinct and independent 4mm dia copper/6 mm dia GI wires. All 3 phase switches and distribution boards upto 100 amps rating shall be earthed with 2 Nos distinct and independent 6mm dia copper 8 mm dia GI wires. All switches, bus bar, ducts and distribution boards of rating 200 amps and above shall be earthed with a minimum of 2 Nos separate and independent 25 mm x 3 mm copper / 25mm x 6mm GI tape.

7. PROHIBITED CONNECTIONS

neutral conductor, sprinkler pipes, or pipes, conveying gas, water, inflammable liquid, structural steel work, metallic enclosures, metallic conduits and lighting protection system conductors shall not be used as a means of earthing an installation or even as a link in an earthing system.

8. RESISTANCE TO EARTH

No earth electrode shall have a greater ohmic resistance than 3 ohms as measured by an approved earth testing apparatus. In rocky soil the resistance may be upto 5 ohms. The electrical resistance measured between earth connection at the main switchboard and any other point on the complete installation shall be low enough to permit the passage of current necessary to operate fuses or circuit breakers, and shall not exceed 1 ohm.

TECHNICAL SPECIFICATIONS

LIGHTNING PROTECTION SYSTEM

1.1 STANDARDS

The following Indian Standards Specifications and Codes of Practice will apply to the equipment and the work covered by the scope of the Contract. In addition the relevant clauses of the Indian Electricity Act 1910 and Indian Electricity Rules 1956 as amended upto date shall apply. Wherever appropriate Indian Standards are not available relevant British and / or IEC Standards shall be applicable.

BIS certified equipment shall be used as a part of the Contract in line with Government regulations. Necessary test certificates in support of the certification shall be submitted prior to supply of the equipment.

It is to be noted that updated and current Standards shall be applicable irrespective of those listed below.

Code of Practice for the Protection of buildings and Allied Structures

Against lightning

IS 2309 : 1989

Code of Practice for Earthing

IS 3043: 1987

1.2 GENERAL

The Lightning Protective System shall comprise of Air Terminations, Down Conductors, Earth Terminations etc. as required. The system shall preferably use the same conducting material throughout and will comply to the detailed specifications detailed hereinafter.

The entire lightning system should be mechanically strong to withstand the mechanical forces produced in case of a lightning stroke.

1.3 MATERIALS

The materials of which the protective system is composed shall be resistant to corrosion or be adequately protected against corrosion. The material shall be as specified in the Schedule of Quantities and shall comply to the following requirements.

a) Copper- When solid or stranded copper wire is used it shall be of the grade ordinarily required for commercial electrical work generally designated as being of 98% conductivity when annealed, conforming to Indian Standard Specifications :

b) Galvanized Steel – Galvanized steel uses shall be thoroughly protected against corrosion by hot dipped Zinc coating. The material coating shall withstand the test specified in IS 2309 :

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c) The strips to be used shall be in maximum lengths available as manufactured normally avoiding unnecessary joints.

1.4 AIR TERNINATIONS

1.4.1 Vertical Air Terminations

Vertical air termination shall comprise of finials made of 25mm dia GI tube with single or multiple prongs at the top. Vertical terminations where provided shall project 30 cms above the project salient point or net work on which it is fixed.

1.4.2 Horizontal Air Terminations

Horizontal air terminations should be so interconnected that no part of the roof is more than 9m away from the nearest horizontal conductor. For a flat roof horizontal air termination along the outer perimeter of the roof is to be used. For a roof of larger area a net work of parallel horizontal conductors shall be installed. Horizontal air terminations should be coursed along contours such as ridges, parapets and edges of the flat roofs and where necessary over flat surfaces in such a way as to join each air termination to the rest and should themselves form a closed network.

All metallic finials, chimneys duct, vent pipes, railings, gutters, and the like on or above the main surface of the roof of the structure should be bonded to and form part of the air termination network.

1.5 Down conductors

The down Conductors shall be of material as specified in the Schedule of Quantities. These shall be distributed around the outside walls of the structure and shall preferable be run along the corners and other projections. Life shafts shall not be used for fixing the Down Conductors.

The routing of the Down conductors shall be such that it is accessible for inspection, testing and maintenance .

1.6 TESTING JOINTS AND BENDS

The lightning protective system should have as few joints in it as possible.

Wherever joints in the down conductor above ground level are necessary they shall be mechanically and electrically effective.

In the down conductor below ground level there shall be no joints.

The joints may be clamped, screwed, bolted, riveted, sweated braced or welded. Bolted joint should be used on test points or on bonds to existing metal.

Each down conductor should be provided with a testing joint in a position convenient for testing but inaccessible for interference.

1.7 FASTENERS

Conductors shall be securely attached to the building by fasteners which shall be substantial in construction, not subject to breakage.

These shall be of galvanized steel or other suitable materials with suitable precautions to avoid corrosion.

The method and nature of the fixing should be simple, solid and permanent. The lightning conductors shall be secured at not more than 1.20m apart for horizontal run and 1.0 m for vertical run.

1.8 EARTH TERMINATION

Each down conductor shall have an independent earth termination and all earth terminations should be interconnected.

1.9 EARTH ELECTRODES

Earth electrodes shall be constructed and installed as laid down in the IS 3043.

1.9.1 Plate Earth Electrode

The plate electrodes shall be of copper or G.I. as called for in the Bill of Quantities. The minimum dimensions of the electrode shall be G.I. 600mm x 600mm x 6mm thick and for copper 600mm x 600mm x 3mm

The electrode shall be buried in ground with its face vertical and top not less than 4m belowground level.

1.9.2 Earth Electrode Pit

In the case of plate earth electrode, a watering pipe of 20mm dia of medium class GI pipe shall be provided and attached to the electrode. A funnel with mesh shall be provided at the top of this pipe for watering the earth. The watering funnel attachment shall be housed in masonry enclosure of not less than 300 x 300 x 300 mm. A pre-cast RCC cover shall be suitably embedded in the masonry enclosure.

1.9.3 Location of Earth Electrode

The following guidelines shall be followed for locating the earth electrodes □ An earth electrode shall not be situated less than 2 metres from any building.

- The excavations for electrode shall not affect the column footing for foundations of the buildings. In such cases electrode may be further away from the building.
- The location of the earth electrode shall be such where the soil has reasonable chance of remaining moist, as far as possible.
- Entrances, pavements and road ways shall not be used for locating the earth electrode.

1.10 EARTH RESISTANCE

The whole of the lightning protective system should have a combined resistance to earth not exceeding 1 ohms before any bonding has been effected to metal or on a surface for to surface below ground.

SAFETY REGULATIONS

The following safety regulations are to be followed in addition to the detailed safety requirements given in the contract document.

The Vendors shall, at their own expense, arrange for safety provisions as per safety codes of Indian Standards Institution, Indian Electricity Act and such other Rules, Regulations and Laws as may be applicable, as indicated below, in respect of all labor, directly or indirectly employed in the work for performance of the Vendors' part of this agreement.

No inflammable materials shall be stored in places other than the rooms specially constructed for this purposes in accordance with the provisions of Indian Explosives Act. If such storage is unavoidable, it should be allowed only for a short period and in addition, special precautions, such as cutting off the supply to such places at normal items, storing materials away from wiring and switch boards, giving electric supply for a temporary period with due permission of Engineer-in-charge shall be taken.

Protective and safety equipment such as rubber gauntlets or gloves, earthing rods, line men's belt, portable artificial respiration apparatus etc. should be provided in easily identifiable locations. Where electric welding or such other nature of work is undertaken, goggles shall also be provided.

Necessary number of caution board such as "Man on Line, Don't switch on" should be readily available in easily identifiable locations.

Standard first aid boxes containing materials as prescribed by the St. John Ambulance Brigade or Indian Red Cross should be provided in easily identifiable locations and should be readily available. Periodical examination of the first aid facilities and protective and safety equipment provided shall be undertaken and proper records shall be maintained for their adequacy and effectiveness.

Charts (one in English and one in regional language) displaying methods of living artificial respiration to a recipient of electrical shock shall be prominently displayed at appropriate places.

A chart containing the names, addresses and telephone numbers of nearest authorized medical practitioners, hospitals, Fire Brigade and also of the officers in charge shall be displayed prominently along with the First Aid Box.

Steps to train supervisory and authorized persons of the Engineering staff in the First Aid Practices, including various methods of artificial respiration with the help of local authorities such as Fire Brigade, St. John's Ambulance Brigade, Indian Red Cross or other recognized institutions equipped to impart such training shall be taken, as prompt rendering of artificial respiration can save life at time of electric shock.

No work shall be undertaken on live installations, or on installations which could be energized unless one another person is present to immediately isolate the electric supply in case of any accident and to render first aid, if necessary.

No work on live L.T. busbar or pedestal switchboards should be handled by a person below the rank of a Wireman and such a work should preferably be done in the presence of the Engineer-in-charge of the work. When working on or near live installations, suitably insulated tools should be used, and special care should be taken to see that those tools accidentally do not drop on live terminals causing shock or dead short.

Before starting any work on the existing installation, it should be ensured that the electric supply to that portion in which the work is undertaken is preferably cut off. Precautions like displaying "Men at Work" cautions boards on the controlling switches, removing fuse carrier from these switches and these fuse carriers being kept with the person working on the installation, etc. should be taken against accidental energization. "Permit to Work" should, be obtained from the Engineer-in-charge. No work on H.T. main should be undertaken unless it is made dead and discharged to earth with an earthing lead of appropriate size. The discharge operation shall be repeated several times and the installation connected to earth positively before any work is started.

Before energizing on an installation after the work is completed, it should be ensured that all tools have been removed and accounted, no person is present inside any enclosure of the switch board etc. any earthing connection made for doing the work has been removed, "Permit to Work" is received back duly signed by the person to whom it was issued in token of having completed the work and the installation being ready for re-energizing and "Men at Work" caution boards removed.

In case of electrical accidents and shock, the electrical installation on which the accident occurred should be switched off immediately and the affected person should be immediately removed from the live installation by pulling him with the help of him coat, shirt, wooden rode, broom handle or with any other dry cloth or paper. He should be removed from the place of accident to a nearby safe place and artificial respiration continuously given as contained in BIS. Code and Standard prescribed by St. John Ambulance Brigade or Fire Brigade.

Caution boards

Affixing / pointing caution boards / danger plates as statutorily required for electrical safety.

Name plates

Providing engraved anodized aluminum or approved equivalent name plates of suitable sizes on Switchboards / panels / equipments etc.

Circuit identification

All incoming and outgoing cables and wires shall be properly labeled as per the layout/schematic drawings for easy identification.

LIST OF APPROVED MAKES**LIST OF APPROVED MATERIAL AND MAKES OF ITEMS****(THE MAKE LISTED BELOW SHOULD BE FIRST APPROVED BY THE BANK BEFORE USE IN CONSTRUCTION)**

INTERIOR - FURNISHING WORK		
1	BLOCK BOARD & PLY WOOD	DURO, CENTURY, GREEN, ARCHID
2	FLOAT GLASS	SAINT GOBAIN, MODI GUARD, AIS
3	LAMINATES & VENEER	MERINO , ARCHID , GREEN (NEW MICA)
4	CEMENT BOARDS /MDF	E- BOARD, BISON BOARDS, NUWUD, GREEN, ACTION, GLO
5	GLUE ADHESIVE	FEVICOL (PIDILITE) , ARALDITE OF CIBA GEIGY, .BAL ENDURA OR APPROVED
6	CURTAIN RODS & ACCESERIS	MARVEL, MAC, VISTA.
7	LOCKS	GODREJ, DORSET, DORMA, HETTICH, OZONE, HAFELE
8	DOOR CLOSERS, FLOOR SPRINGS:	EVERITE, HARDWYN, CROWN , GODREJ, HETTICH
9	M.S / BRASS SCREWS	NETTLE FOLD, GKW, STAG ,EXCEL
10	DRAWER / CABINET HANDLES / LOCKS	GODREJ / EBCO / DORSET/ OZONE
11	MAGNET CATCHER	SUPREME, EXCEL, EBCO,
12	MODULAR KITCHEN ACCESSORIES	HETTICH, HAFELE, KAFF
13	GLASS BRASS BRACKET	FLORA, PERFECT,
14	SS HANGER ROD	HETTICH, PANS, HAFELE, EBCO
15	WIRES & CABLES	HAVELLS, R.R. KABLE, FINOLEX, POLYCAB
16	LIGHTING FIXTURES	PHILIPS, WIPRO, CROMPTON, HAVELLS, JAQUAR .
17	FANS / EXHAUST FANS	CROMPTON, BAJAJ, HAVELL. USHA, ORIENT
18	GEYSER	RECOLD/HAVELLS/JAQUAR/VENUS
19	WATER PURIFIER	DR. AQUAGUARD (EUREKA FORBES)
20	<i>PAINT</i>	<i>Asian paints, Berger, ICI Dulux paints, Nerolac First quality</i>
21	<i>CEMENT</i>	<i>ACC, Birla, JP cement, or approved</i>
22	CP FITTINGS	JAQUAR, PARRYWARE, HINDWARE

- Note.1) The contractor should submit samples and obtain prior approval from Employer / Consultants before placing order for any specific materials. Employer may / delete any of the makes or brands out of the above list.
- 2). All materials should conform to relevant standards and codes of BIS.
- 3) Materials with I.S.I. mark shall be used duly approved by the Company's Engineer / Architect.

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

PROFORMAS & ANNEXURES

ANNEXURE – A

PROFORMA OF APPLICATION FOR REGISTRATION OF ESTABLISHMENT EMPLOYING CONTRACT LABOUR

1. Name and location of the establishment
2. Postal address of the establishment.
3. Full Name and address of the principle Employer
4. Full name and address of the manager or the person responsible for the supervision and control of the establishment.
5. Nature of work carried on in the establishment
6. Particulars of Contractor/s and contract labour
 - a. names and address of the Contractor/s
 - b. nature of work in which contract labour is employed or is to be employed
 - c. Maximum number of contract labour to be employed on any day through each contractor.
 - d. Estimated date of commencement of each contract work under contractor.
 - e. Estimated date of termination of employment of contract labour under each contractor
7. Particulars of treasury receipt enclosed. (Name of the treasury, amount and date)

I hereby declare that the particulars given above are true to the best of my knowledge and belief.

Principal Employer

Seal and Stamp

- B

PROFORMA OF REGISTER OF CONTRACTOR/S

1. Name and Addresses of The Principle Employer
2. NAME and address of the establishment

Sr. No.	Name and address of contractor	Nature of work on Contract	Location of contract	Period From	Period To	Maximum Number of workmen employed by the contractor

ANNEXURE - C

PROFORMA OF NOTICE OF COMMENCEMENT/ COMPLETION OF CONTRACT WORK

1. Name of principle employer & address
2. No. and date of certificate of registration
3. I /we hereby intimate that the contract work _____ (Name of work) given to _____ (Name and address of the Contractor) having License No. _____ dated _____ has commenced/ has been completed with effect from _____ (date)/ on _____ (date).

Signature of the Principle Employer

The Inspector,

ANNEXURE - D

PROFORMA OF MONTHLY PROGRESS REPORT

Name of work

Progress report for the month

Report No.

Sr. No.	Description of work	Details of location where works is done	Approximate quantity executed

Sr. No.	Description of work	Date of commencement	Percentage of progress achieved

ANNEXURE-E

RECEIPT OF MATERIALS AT SITE

Sr. No.	Description of work	Opening Balance	Receipt during month	Consumption during month	Closing balance	Total received quantity till date

**F
MEASUREMENT BOOK**

Item. No.	Description	Measurements No.			Quantity
		L	B	D / H	

Measurement Book shall be provided by the Employer through Architect. suitable modification in Measurement book shall be carried out in consultation of Architect/ Consultant/ Bank

ANNEXURE G

I – RUNNING A/C BILL

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

Sr. No	tem	Description	Unit	Rate (Rs.)	As per Tender
1	2	3	4	5	6

Upto previous R/A Bill		Upto date till this Bill		Present Bill		Remarks
Qty.	Amount (Rs.)	Qty.	Amount (Rs.)	Amount (Rs.)	Qty.	
7	8	9	10	11	12	13

Note:

- 1) If part rate is allowed for any item, it should be indicated with reasons for allowing such a rate
- 2) If ad hoc payment is made, it should be mentioned specifically

Net values since Previous bill

ANNEXURE I

R.A. BILL CERTIFICATE

The measurements on the basis of which the above entries for the running bill no _____ were made have been taken jointly on _____ and are recorded at pages _____ to _____ of measurement book No. _____

Signature and date of Consultant's representative _____ Signature and date of Contractor (seal)

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

Architect

Consultant

P&E Officer/Bank's Engineer

ANNEXURE K

PROFORMA OF CERTIFICATE OF PAYMENT BY CONSULTANT/Architect

Certificate No. Interim	Dated	
Client:	Project No.	Building Work/ Interior
	Particulars:	
Contractor:	Contract / Letter No.	Dated:
	Contract's Bill No.	Dated

This is to certify that the amount given below (*) is due to your Contractor/s for the work done by them and / or against materials delivered at site and/or for advance towards contract on the above referred project. Advance against contract:

Less: Advance adjusted to date

Balance Advance

Advance against material delivered at site

Amount of work done to date

Total

Less: Retention on work done

Less: Previously certified upto

Present Certificate (*)

Rupees _____

The cost of material supplied by you or payments made by you directly if any, and not covered herein above, should be adjusted before making the payment of the certified amount (*) Necessary Deduction U/S 194C of the Income Tax 1961 and sales tax may be made before paying the above certified amount. By a copy of this letter, we are intimating the Contractor/s to call on you for the necessary payment.

Remarks, if any

The details of insurance policy are enclosed.

Enclosures: Bill

Signature of Architect/Consultant

ANNEXURE- L

PROFORMA OF HINDRANCE REGISTER

Name of the work: Date of state of work:

Name of Contractor: Period of Completion:

Agreement No. : Date of completion

Sr. No	Nature of Hindrance	Date of occurrence of hindrance	Date of which hindrance was removed	Period of hindrance	Signature Of Architect	Remarks

Consultant/ Architect

ANNEXURE M

APPLICATION OF PROFORMA FOR EXTENSION OF TIME LIMIT

1. Name of Contractor
2. Name of the work as given in the agreement
3. Agreement No.
4. Estimated Tender amount.
5. Date of Commencement of work as per Agreement.
6. Period allowed for completion of work as per agreement.
7. Date of completion stipulated in Agreement.
8. Period for which extension of time has been given previously:
 - a) 1 extension vide Architects/ bank letter no. dtd, month, days st
 - b) 2 extension vide Architects/ bank letter no. dtd, month, days nd
 - c) 3 extension vide Architects/ bank letter no. dtd, month, days rd
 - d) 4 extension vide Architects/ bank letter no. dtd, month, days th 9. Total extension previously given.
- a) Reasons for which extensions have been given (copies of the previous application should be attached)
10. Period for which extension is applied for:
11. Hindrances on account of which extension is applied for with dates on hindrances occurred and the period for which these are likely to last :
 - a) Serial No.
 - b) Nature Of Hindrance:
 - c) Date of Occurrence:
 - d) Period for which is likely to last :
 - e) Period for which extension required for this particulars hindrance:
 - f) Overlapping period if any, with to item (e) above
 - g) Net extension applied for:
 - h) Remarks if any
12. Extension of time required for extra work
13. Details of extra work and amount involved:
 - a) Total value of extra work:
 - b) Proportionate period of extension time on estimated amount put tender
14. Total extension time required for 11 & 12 :

Submitted to the Consultant/Architects/Bank

----- Signature of contractor Date:



CONTRACTOR'S LIABILITY AND INSURANCE SUMMARY

Sr No	Nature and Scope of Risk	Value of Insurance	Validity Period of Insurance	Name of the Insurer	Insurance Policy No.
1.	Loss of damage to works or any part thereof materials at site from any cause whatsoever including Fire (CAR)	100 % Contract Amount	The policy shall be valid till actual completion of work.	The Policy shall be in joint names of Employer and Contractor	
2	Damage, Loss or Injury to any Person of the Employer or Consultants including their representatives and third Party	15.00 lacs per claim upto 3 claims	The policy shall be valid till actual completion of work	The Policy shall be in joint names of Employer and Contractor	
3	Claims under the Workmen's Compensation Act, 1923	As per Govt Rules	The policy shall be valid till actual completion of work	The Policy shall be in joint names of Employer and Contractor	

Signature of Contractor

Witnesses:

Address:

