



INDIAN BANK
ZONAL OFFICE - POONAMALLEE
WELLINGTON ESTATE BUILDING
No.55, ETHIRAJ SALAI (2ND FLOOR)
Chennai – 600 008
TELEPHONE: 044 – 28252148

T E N D E R DOCUMENT

INTERIOR, ELECTRICAL, DATA CABLING, FIRE ALARM & BURGLAR ALARM WORKS OF BRANCH & E-CORNER AT MANALI NEW TOWN BRANCH

(PART- A: TECHNO-COMMERCIAL)

M/s. Premkumar Architects

A-3, Akash flats, 12-C,
Sengalaniamman Koil Street,
Narayanapuram, Pallikaranai,
Chennai 600100.
Mobile: 98401 49199.

**PROPOSED INTERIOR, ELECTRICAL, DATA CABLING, FIRE ALARM & BURGLAR
ALARM WORKS OF BRANCH & E-CORNER FOR INDIAN BANK AT MANALI NEW
TOWN BRANCH**

TENDER DOCUMENTS
(PART-A: TECHNO-COMMERCIAL)

NAME AND ADDRESS OF THE TENDERER

.....
.....
.....

DATE AND TIME OF
SUBMISSION OF THE TENDER **- 3.00 P.M. on 17 .08.2020**

DATE AND TIME OF
OPENING OF THE TENDER **- 3.30 P.M. on 17 .08.2020**

Architects / Consultants
M/s. Premkumar Architects
A-3, Akash flats, 12-C,
Sengalaniamman Koil Street,
Narayanapuram, Pallikaranai,
Chennai 600100.
Mobile: 98401 49199.

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FORM OF TENDER

To,
The Deputy General Manager,
Indian Bank,
Zonal Office - Poonamallee,
Premises & Expenditure Section,
No.55, Ethiraj Salai,
Chennai-600008.

Dear Sir,

Ref: Interior, Electrical, Data Cabling, Fire alarm & Burglar Alarm system works of Branch & E-Corner for Indian Bank at existing Manali New Town Branch.

Having examined the plans, specifications and schedule of quantities prepared by your Architect, **M/s.Premkumar Architects**, and satisfying ourselves as to the location of the site and working conditions, I/we hereby offer to execute the above works at the respective rates which I/we have quoted for the items in the Schedule of Quantities.

I/We herewith deposit **Rs.19, 000/- (Rupees Nineteen Thousand only)** by Demand Draft or Banker's Cheque drawn in favour of **Indian Bank, Zonal Office – Poonamallee payable at Chennai** as Earnest Money Deposit for the execution of the works at my/our tendered rates together with any variations should the work be awarded to me / us.

In the event of this tender being accepted, I/we agree to enter into and execute the necessary contract required by you. I/We do hereby bind myself/ourselves to forfeit the aforesaid deposit of **Rs.19, 000/- (Rupees Nineteen Thousand only)** in the event of our refusal or delay in signing the Contract Agreement. I/we further agree to execute and complete the work within the time frame stipulated in the tender documents. I/we agree not to employ Sub-Contractors without the prior approval of the Bank.

I/we have registered/migrated to GST regime and have the certificate of provisional/permanent registration indicating my/our GSTIN number, a copy of which is enclosed for your reference. I/we agree to pay GST to the concerned authority and the **GST rates quoted by me/us separately are as per prevailing rates.** I/we also agree to accept the bank's applicable GST rates at the time of settling my/our invoices, in the event of any dispute occur in the applicable percentages of the GST rates in the event of our higher GST rates.

I/we understand that you are not bound to accept the lowest tender or bound to assign any reasons for rejecting our tender. I/we further understand that Indian Bank may award Contracts for Interior to more than one Contractors and that I/we shall make no claims whatsoever if Indian Bank accept only a part of my/our tender. We unconditionally agree to Indian Bank's preconditions a stipulated in the tender documents.

I/We agree that in case of my/our failure to execute work in accordance with the specifications and instructions received from the Owner or the Architect/Consultants appointed by the Bank, during the course of the work, Bank reserves the right to terminate my contract and forfeit the Earnest money deposit paid by me in additions to recovery of all the dues to the Bank from the payment receivable by me. Further I may also be barred from tendering in future for the Bank and its subsidiaries.

I/we enclose two demand draft/banker's Cheque for **Rs.19, 000/- (Rupees Nineteen Thousand only)** towards Earnest Money deposit in envelope No. 1, in favour of Indian Bank, Zonal Office - Poonamallee, Chennai, payable at Chennai.

I/we agree to keep our tender open for 90 days from the date of opening of envelope No. 2 i.e. (Techno-commercial bid).

I/we enclose herewith the completed tender documents duly signed in duplicate in envelope No. 3. (Price Bid).

The acceptance of this tender shall constitute a contract binding on us and any failure shall constitute a breach of contract by us, and the tender accepting authority shall be entitled to have the work executed at our risk and cost and to claim extra cost/expenditure incurred by them, from us.

Our Bankers are:

- i) -----
- ii) -----
- iii) -----

The name of partners / Directors of our firm are:

- i) -----
- ii) -----
- iii) -----

Yours truly,
[To be signed by the Authorized Representative of
Tenderer holding Power of Attorney]

Place:

Date:

APPENDIX-A

S.No	Description of work	:	Proposed tender for the Interior, Electrical, Data Cabling, Fire Alarm and Burglar Alarm system works of Branch & E-Corner for India Bank at existing Manali New Town Branch.
1	Name of employer	:	Indian Bank, Zonal Office - Poonamallee, Chennai
2	Address at which the tenders are to be submitted	:	The Deputy General Manager, Indian Bank, Zonal Office - Poonamallee, No.55, Ethiraj Salai, Chennai -600008.
3	Period of sale of tender documents	:	From 27.07.2020 to 17.08.2020
4	Last date of submission of tender	:	17.08.2020 before 03:00PM
5	Date and time of opening of tender	:	17.08.2020 @ 03:30 PM
6	Validity of the tender	:	90 days from the date of submission / as may be Extended
7	Place of Opening Tender	:	Indian Bank, Zonal Office - Poonamallee, No.55, Ethiraj Salai, Chennai -600008.
8	Earnest Money Deposit	:	Rs.19, 000/- (Rupees Nineteen Thousand only) (Bank guarantee will not be allowed)
9	Tender rate includes	:	Income tax, any applicable cess. GST will be paid separately (Details please refer Clause: 24)
10	Initial Security Deposit	:	Sum equivalent to 2 % of contract value less EMD.
11	Security Deposit	:	Total security deposit shall be 5 % of contract value. Out of this 2 % of contract value is in the form of initial security deposit which included the EMD.
12	Liquidated damages	:	1% per week subject to maximum of 10 % of total contract value.
13	Time of Completion	:	45(Forty Five) Calendar days. from the 3 rd day of the issue of work order or from the day of handing over the site whichever is later.
14	Defects liability period	:	12 months from the date of virtual completion.

15 Certificate of Payment

: **Interior / Elect. Installation / Data Cabling**

**(Ref : Clause 19 & 35 of
General Conditions of
contract)**

- i. Interim bills will be paid when the approximate value of the work done is 1/5 of the total contract value.
- ii. The minimum interval between two such bills shall be 15 days.
- iii. Bank will make the payment of interior bills within 10 days from the date of payment certificate issued by the Architect / Consultant provided the bills are submitted in standard format with Measurement Books (MBs).
- iv. Contractor should submit the interim bills in the prescribed format only after taking actual measurements for the completed work and properly recorded in the M Books.
- v. No advance in any form shall be payable against any material brought to site.
- vi. The final bill may be submitted to the Architects with in a period of 15 days from the date of virtual completion certified by Architects.
- vii. Architects shall issue the certificate of final bill payment with in a period of 15 days.
- viii. The final bill shall be settled by Bank with in a period of one month from the date of issue of certificate by the Architects provided there is no dispute in respect of rates and quantity.

Signature of tenderer with seal

Date:

APPENDIX – B

Salient Conditions of Composite Contract

1. The successful contractors have to furnish a detailed **PERT CHART / BAR CHART** indicating their schedule programme for all the major activities within 7 days from the date of written order to commence the work. This **PERT CHART / BAR CHART** will be referred for during the progress of the work to establish the periodical land marks of achievement of work. If necessary the revised **PERT CHART / BAR CHART** based on the revised scope of work have to be submitted by the contractor.
2. The electric power required to execute the work would be arranged by the Bank at a particular point and the contractors have to make their own arrangements for tapping the supply at various points. The amount equivalent to 0.15 % of final bill value of total work done towards the Electrical charges shall be recovered from the contractors.
3. Contractors will have to make their own arrangement for water. However water could be arranged by the Bank and the amount equivalent to 0.10 % of final bill value of total work done towards the water charges shall be recovered from the contractors after meeting the requirement of Branch / Office.
4. The successful tenderer should appoint a **Project Engineer** who is well acquainted with the composite nature of work and handle the Interior, Electrical installation, Data cabling, Fire Alarm & Burglar Alarm system works. He should be in a position to answer for any clarification during site visit by Architect / Bank Engineers (**Ref: Clause 46 of General Conditions of contract**).
5. The tenderer should have the valid **“ESB” grade / “EA” grade license** in their firm name issued by the Electrical Inspectorate of Government authority and furnish the **copy of license** along with tender **Part I-TD**.
6. In case the tenderer engage their associate agencies for the electrical work, they should also possess the same license and the tenderer should furnish the **name of such agency** along with the copy of license in the **tender Part I-TD**. In case the successful tenderer would change such associate agency for electrical / data cabling during the course of execution, for any reason and it should be intimated in prior by writing to the Architect / Bank and an approval from the Architect / Bank has to be obtained before any such act.
7. The associate agencies to be engaged by the tenderer to carry out the specialist job like Electrical should have three years experience in the respective field and the tenderer should furnish the name of such agencies along with their experience certificate in tender Part I-TD.
8. The tenderers after collecting tender document should thoroughly study the relevant Interior, Electrical and Data cabling drawings in relation with BOQ and bring to notice of abnormality, if any, to the Architects prior to submission of tender.
9. The light fixtures should be procured from the **approved manufacturers (OEM)** or from their dealers as approved by Bank.
10. It is the responsibility of the contractor to arrange the Light fixtures as approved by Architect / Consultants / Bank from approved OEM or from dealers and no hindrance is accepted on account of delay caused due to arrival of such equipments. It is the contractor's responsibility to study the availability and feasibility of such equipments / materials before quoting.

11. Contractors are expected to strictly adhere to the **labour laws** in force from time to time by both Central and State Governments. The necessary records should be maintained at site and an amenity to the labours has to be made available at site as per law. The labours should be paid the salary in time as per the minimum wage act. The labour license shall also to be obtained from the authorities concerned.
12. Contractors should ensure to make all the statutory taxes like service tax, work contract / Sales Tax, etc. and make sure to pay the **ESI and EPF** as per law in practice. Contractors are advised to quote the rates after considering the payment of such taxes / liabilities and Bank will not make any reimbursement of such taxes.
13. **Rates to be in figures and words:**
 - a) The Tenderer should quote in English both in figures as well as in words the rates and amounts tendered by him in the Schedule of Rates for each item and in such a way that interpolation is not possible. The amount for each item should be worked out and entered and requisite totals given of all items both in figures and in words. The tendered amount for the work shall be entered in the tender and duly signed by the Tenderer. The contractor 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 total given.
 - b) All corrections shall be attested by the initials of the tenderers with the seal of the firm. In case any discrepancy / difference is found on checking between rates quoted by the contractor in words and figures or in the amount worked out by him, the following procedure shall be followed:
 1. When there is a difference between the rates in figure and in words, the rates, which correspond to the amount worked out by the contractor, shall be taken as correct.
 2. When the amount of any 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 rates quoted by the contractors in words shall be taken as correct.
 3. When the rates quoted by the contractor in figure and in words tally but the amount is not worked out correctly, rate quoted by the contractor shall be taken as correct and not the amount.
 - c) Amendments as mentioned above shall be based on the tender marked "original" only.
14. All signatures in tender documents shall be dated and stamped. All pages of tender documents shall be initialed at the lower right hand corner or signed wherever required in the tender papers by the Tenderer or by a person holding power of attorney authorizing him to sign on behalf of the Tenderer before submission of tender.
15. No corrections and alterations in the entries of tender papers shall be permitted. If any they shall be signed and dated in full by the Tenderer. Corrections with white fluid and overwriting are not permitted
16. After completion of work the contractor should prepare **As Built drawings** of each trade such as interior / electrical / data cabling after modifying the actual drawings issued by the Architect where ever the changes made by IOB/Architect / Consultant in the form of two sets of hard copy and one soft copy.
17. The successful tenderer awarded with the composite work assumes overall responsibilities and are solely responsible for co-ordination, execution of works by engaging the associate agencies for Electrical Installation and extracting the works from them as per specification within the time frame to the satisfaction of Bank / Architect as per tender conditions. Any dispute if arise among them to be sorted out / settled at their level. The successful tenderer is the sole representative for whole

composite work and they / he is liable for any clauses of this tender.

18. If the composite contractor are under liquidity crisis or in unpredictable financial crunches or in any other problems and by which the works are stalled due to non payment for the completed works to the Associate agencies engaged by them and the Composite Contractor are not in a position to progress the work further, in the interest and earlier completion of the work Bank have every right to make direct payment to such already declared Associate agencies with written consent of the principle Composite Contractor. In that event the amount paid to the Associate agencies shall be adjusted while making the actual payment as per the relevant clauses to the Composite Contractors.
19. Necessary insurance policies such as CAR policy / Workmen's Compensation, Third Party liability to be taken before commencing the work and the original policies to be deposited with Bank.
20. Necessary Labour License to be taken before commencement of work.
21. Bank will not pay any mobilization advance / material advance and there will not be any escalation for the work.
22. No deviation will be allowed in the material specified and the Tenderers are advised to specify the make of materials list enclosed.
23. The composite work shall be executed in a functioning Branch and hence necessary precautions shall be taken while executing the works. The carrying out of work should not hamper the branch functioning. The major part of the work may need to be carried out during night hours in order to achieve the target period.
24. The Tenderer is required to inspect the site and obtain for himself on his own responsibility and at his own expense all necessary information and particulars to enable him to submit a proper tender.
25. The work includes cost of fitting and fixing the several items in position to floors, walls, ceiling, etc., in the building in accordance with the drawings or as may be directed and it may be necessary to make holes, chases, etc., on floors, walls, ceilings, etc., as may be shown in the drawings. The composite contractor must not only note of these provisions but must also allow for such as he may be required to do at the time of work is taken up by him and it will be deemed that his rates take into account all force able contingencies which will include making good disturbed floors, walls, ceilings, to their original condition.
26. The Contractor at site verify the dimensions shown in the drawings before he takes up actual manufacture of the several items, making allowances for the actual dimensions that prevail at site.
27. The drawings, specifications and the bills of quantities, forming part of the contract are explanatory of and are complementary to one another, representing together the works / installations to be carried out.
28. If neither the drawings nor the specifications nor the accepted bills of quantities include any part / parts the intention to include which is never the less clearly to be inferred and which are obviously necessary for the proper completion of the works / installations, all such parts shall be supplied and executed by the Contractor at no extra charge.
29. Anything contained in one or another of (a) the drawings (b) the specifications and (c) the accepted

bills of quantities and not found in the other will be equally binding as if contained in each of them.

30. The work will be done strictly in accordance with the drawings and as instructed the Architects / Bank.
31. The descriptions in the bills of quantities are brief and have been compiled as correctly as possible but are not meant to be exhaustive.
32. Laminate shall be of approved quality, make and colour and shall be fixed with approved adhesive. Unless otherwise specified, laminate should be 1.00 mm / 1.5mm thick for table top / cupboards top, partitions, cupboard shutters and all vertical surfaces.
33. Unless otherwise specified:
 - a. All concealed faces of ply and CW should be painted with one coat of wood preservative paint.
 - b. Inside faces of cupboards to be coated with wax polish / varnished to the approval of Architects/ Bank.
 - c. Table drawer inside should be waxed and varnished.
 - d. All exposed faces of teakwood beading / white cedar lipping should be melamine polished as directed by the Architect.
 - e. All exposed edges of the commercial ply should be provided with teakwood, white cedar lipping all-round.
 - f. All joinery fittings and fixtures should be of approved make.
34. The Contractor should arrange for inspection of the sample of each item by the Architects / Bank proceeding with the work of manufacturing other units. The samples should be produced for inspection and approval of the Architects in the stages (1) after the same is assembled and made ready as per the Architect's drawings and (2) after completing the finishing items viz., polishing / painting etc.
35. It may clearly be noted that the inspection and approval of the items of work at any stage shall not exonerate the Contractor of his responsibilities in respect of the quality of work, workmanship and quality of materials.
36. The Employer reserves the right to split the Contractor amongst more than one agency and the rates quoted by the Tenderer for individual items should be self supporting and should hold good even for part orders. The rates should also include all taxes, excise duty, sales tax, control work contract tax, Service Tax if any and all other duties and taxes levied by the Central Government / State Government for the present and future.
37. Rate should includes for providing necessary cutouts, holes for electrical conduits, switch boxes, plug points in work stations, partitions, tables, etc., wherever necessary and as shown in drawing along with the coordination of other agencies.
38. The rate also should include providing additional wooden members horizontal /vertical adjacent to the switch box conduits etc., in order to support the switch box conduits etc.
39. The work should be completed as per the items specified elsewhere in the document and the rate quoted shall rate quoted shall include for doing work round the clock. No extra is payable in this respect.
40. The successful tenderer has to prepare an electrical shop drawing and get the approval for routing

from Architect / Bank.

41. The necessary approval from Architect / Bank should be obtained for the materials like wire/switches/panels (with necessary General Arrangement (GA) drawings) in time.
42. The fabricator for all electrical panels should possess CPRI test certificate for panels.
43. The Contractor should not deliver the panel to site without relevant test being carried out at fabrication unit.
44. Contractors should ensure that the chase cutting for conduits done vertically / horizontally at appropriate level. Cross cutting should be totally avoided. While embedding the conduit in floor / wall ensure that sufficient gap is maintained between conduits for proper filling of cement mortar. Chicken mess should be used while the number of conduits exceeds more than 2 in a row.
45. The minimum and maximum operating height should be maintained at 450 mm / 1800 mm for all the panels.
46. The bus bar should be provided for the entire length of bus bar chamber.
47. **Validity period of Offer:** The tender shall remain valid for 90 days from the date of opening of price Bid.
48. **Liquidated damages:** 1% per week subject to maximum of 10 % of total contract value.
49. **Defects liability Period:** 12 months from the date of 'virtual completion certified by Bank /Architect.

Signature of Tenderer with seal:

Address:

Date:

BRIEF TO TENDERERS

Indian Bank - Zonal Office Poonamallee
No.55, Ethiraj Salai, Chennai-600008.

NOTICE INVITING TENDER (DOMESTIC COMPETITIVE BIDDING) FOR THE EXECUTING INTERIOR, ELECTRICAL, DATA CABLING, FIRE ALARM & BURGLAR ALARM WORKS OF BRANCH & E-CORNER FOR OUR EXISTING PREMISES AT MANALI NEW TOWN BRANCH.

1. Indian Bank is a corporate body constituted under the banking companies (Acquisition and Transfer of Undertakings) Act 1970 and having its Zonal Office at 55, Ethiraj Salai, Chennai-600008.
2. Indian Bank, Zonal Office - Poonamallee invites sealed bids under single stage two bid systems (Techno Commercial & Price bid) from shortlisted agencies with sound technical and financial capabilities for executing interior, electrical, data cabling, fire alarm & burglar alarm system works of Branch & E-Corner at Manali new town branch.
3. Brief scope of work involves carrying out the **interior works viz: partitions, false ceiling, cupboards, etc., electrical, data cabling, fire alarm & burglar alarm and other allied works.**
4. The salient features of the tender document are as follows:

Place in which work to be carried out	EMD in Favour of, payable at Chennai	Earnest Money Deposit (EMD)	Tender Fee	Sale Period	Due Date & Time for Receipt of Bids	Opening of priced bids
Existing Branch at Block 5 Rd, Block 270, Manali New Town, Chennai - 600103.	Indian Bank, Zonal Office-Poonamallee, Chennai.	Rs. 19,000/-	Rs.750/-	27-07-20 To 17-08-20	3.00 P.M. on 17-08-20	3.30 P.M. on 17-08-20

5. A set of tender documents (Non-Transferable) can be purchased from 27-07-20 to 17-08-20 at from M/s. Premkumar Architects, A-3, Akash flats, 12-C, Sengalaniamman koil street, Narayanapuram, Pallikaranai, Chennai – 600 100, against payment of Rs.750/- (Rs. Seven Hundred and Fifty Only) in cash (non-refundable) during all working hours.
6. Sealed bids shall be addressed to The Deputy General Manager, Indian Bank, Zonal Office - Poonamallee, No.55, Ethiraj Salai, Chennai – 600008. Bids being delivered by hand shall be put in the separate tender box provided at the reception section. Techno commercial part shall be opened at 1530 Hrs on the specified date in the presence of authorized representatives of the attending bidders.
7. **The time allowed for the carrying out of the work will be 45 (Forty Five) Calendar days for the Manali New Town from the third day after the date of written work order to commence work or handing over the site whichever is later.**
8. Tender will have to be submitted in two parts PART: 'A' and PART: 'B' (mentioning as ORIGINAL and DUPLICATE) separately super scribed sealed and both contained in another sealed envelope, super scribed with the name of the work.
9. Entire work has to be carried out by the vendor / contractor according to the guidelines of IBA Building and Construction Manual. It is the responsibility of the vendor / contractor to ensure the safety of the

people carrying out the works and provide all safety equipments to the workers. Bank / Any of its officers are not liable / responsible incase of any accident / injuries / death caused to the people who are involved in work.

10. PART: 'A' - Shall contain all commercial and general stipulations proposed by the contractor, if any, and the earnest money (in envelope 1), in required shape along with the required documents as detailed in the General Rules and Instructions for the Guidance of Tenderers of the Tender Document. In envelope No. 2 i.e. (Techno-commercial bid).
11. PART: 'B' - Shall contain only the offered price with the schedule of quantities duly filled, in duplicate in envelope No. 3. (Price Bid).
12. PART: 'A' - will be opened on the date and time as stipulated in the Notice of Invitation to the Tenderer (i.e. 03.30 P.M. on 17.08.20) and the quoted prices by the respective contractors shall be noted.
13. Discussions on the stipulations, if any, will be held subsequently on the same day in the office of The Deputy General Manager, Indian Bank Zonal Office - Poonamallee, No.55, Ethiraj Salai, Chennai – 600008. The accredited representatives of the tenderer should attend the discussions. Clarifications arising out of such discussions shall be submitted by the tenderer in a sealed cover marked as PART "C" and will be opened simultaneously. In case the tenderer or his accredited representative fails to attend the discussion arising out of PART: 'A', and do not submit the clarifications on discussions at the stipulated date and time, even if the offer is condition less, then the PART 'B' i.e. the price bid of such tenderer will not be opened. Clarification given by the accredited representative of the tenderer will be deemed to have been given on behalf of the original tenderer himself.
14. After all the clarifications are provided by the contractor or its accredited representative to the satisfaction of the Architect and Bank, the Price-bid will then be opened. If no conditions are made in PART: 'A' of the tender, it will be decided by the Tender Opening Committee to proceed with opening of PART: 'B' on the same day.
15. The contractor, whose tender is accepted, will be required to furnish by way of security deposit for the due filament of his contract, such amount as detailed in clause No.11 of the General Conditions of the Contract.
16. The EMD of the contractor, whose tender is accepted, shall be forfeited in full in case he does not remit the initial Security Deposit within the stipulated period or does not start the work by the stipulated date mentioned in the award letter.
17. The acceptance of a tender will rest with the Bank which does not bind itself to accept the lowest tender, and reserves to itself the authority to reject any or all of the tenders received without the assignment of a reason. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect are to be rejected.
18. The Bank reserves the right to accept the tender in full or in part and the tenderer shall have no claim for revision of rates or other conditions if his tender is accepted in parts.
19. Canvassing in connection with tenders is strictly prohibited and the tender submitted by the contractors who resort to canvassing will be liable to rejection.
20. All rates shall be quoted on the proper form of the tender alone.
21. An item rate tender containing percentage below/above will be summarily rejected. However, where a

tenderer voluntarily offers a rebate for payment within a stipulated period, this may be considered.

22. On acceptance of the tender, the name of the accredited representative(s) of the contractor who would be responsible for taking instructions from the Employer / Architects shall be communicated to the Employer.
23. Special care should be taken to write the rates in figures as well as in words and the amounts in figures only, in such a way that interpolation is not possible. The total amount should be written both in figures and in words. In case of figures, the words "Rs." should be written before the figure of rupees and words "P" after the decimal figures, e.g. Rs.2.15.p. and in case of words, the word "Rupees" should precede and the word "Paise" should be written at the end, unless the rate is in whole rupees and followed by the words at the end, unless the rate is in whole rupees and followed by the words "only", it should invariably be up to two decimal places. While quoting the rates in schedule of quantities, the word "only" should be written closely following the amount and it should not be written in the next line.
24. The Bank does not bind itself to accept the lowest or any tender and reserves to itself the right of accepting the whole or any part of the tender and the tenderer shall be bound to perform the same at the rate quoted.
25. The contractor shall give a list of his relatives working with the Bank along with their designations and addresses.
26. No employee of the Bank is allowed to work as a contractor for a period of two years of his retirement from Bank service, without the previous permission of the Bank. The contract is liable to be cancelled if either the contractor or any of his employees is found at any time to be such a person who had not obtained the permission of the Bank as aforesaid before submission of the tender or engagement in the contractor's service.
27. The tender for the work shall remain open for acceptance for a period of 3 months from the date of opening of tenders. If any tender withdraws his tender before the said period, then the Bank shall be at liberty to forfeit Earnest Money paid along with the tender.
28. The Tender for the work shall not be witnessed by a contractor or contractors who himself / themselves have/ have tendered or who may and had / tendered for the same work. Failure to observe this condition would render tenders of the contractors tendering as well as witnessing the tender liable to summary rejection.
29. It will be obligatory on the part of the tenderer to tender and sign and tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the Competent Authority in the Bank.
30. The tenderer, apart from being a competent contractor must associate himself with agencies of the appropriate class who are eligible to tender for Electrical Works.
31. Delay in submission arising out of postal or any other irregularities will not be considered. The Bank in any case will be not responsible for any damage in transit in case of postal delivery.
32. The Bank will not be bound to accept the lowest tender and reserves the rights to accept or reject any or all the tenders without assigning any reasons whatsoever.

33. Work to be included in the interior Contract:

The following works shall be included in the Interior Contractor's/Vendor's scope:

- a) All necessary civil works necessary for cutting and chasing, drilling the walls for taking the electrical conduits. Including concealing the pipes wherever required and finishing and making good the damaged surfaces smooth including puttying and painting.
- b) Liaisoning charges with the local TNEB authorities to get the enhanced power supply including submitting necessary drawings and application form in coordination with the landlord and bank.
- c) All necessary civil works necessary for cutting and chasing, drilling the walls for taking the copper and drain piping, necessary openings for fresh air duct, pedestals and structural brackets to support the ac outdoor units, interconnecting cables/wires between indoor and outdoor units etc.
- d) Electric power cables terminating in a triple pole, iron clad switch fuse with H.R.C. fuses adjacent to each controller.
- e) Covering of furniture and computers with tarpaulin and clean the premises for the next day use.
- f) Removal of the existing light and fan fixtures and making a temporary lighting and fan arrangement for the day to day functioning of the branch till the air conditioning is\ work is tested and commissioned.

For and on behalf of Indian Bank,
Zonal Office, Poonamallee,
Premises & Expenditure Section,
No.55, Ethiraj Salai,
Chennai-600008

Architects / Consultants
M/s. Premkumar Architects
A-3, Akash flats, 12-C,
Sengalaniamman koil street,
Narayanapuram,
Pallikaranai,
Chennai – 600 100

SPECIAL CONDITIONS AND INSTRUCTIONS TO TENDERERS

1.0 **Location:**

1.1 The proposed work to be carried out in Ground floor located at Block 5 Rd, Block 270, Manali New Town, Chennai -600103.

2.0 The works shall be carried out mostly during day and at nights without causing any inconvenience to the neighbours. Proper care shall be taken for covering the window openings, floors (any damage to the finished flooring shall be replaced at the contractors cost), glass panes etc., when works are being carried out.

3.0 Tenderers must get acquainted with the proposed work and study drawings, designs, specifications, conditions of contract and other conditions carefully before tendering. The Tenderer shall seek clarifications on any item, if required, prior to submitting his tender. No request of any change in rates or conditions for want of information on any particular point shall be entertained after receipt of the tenders.

4.0 The Tenderer is advised to inspect the site to ascertain the nature of site, access there to location, facilities for procurement of materials, labour rates and execution of the work. The Tenderer shall be deemed to have full knowledge of the site and drawings whether or not he actually inspects them.

2.0 **Submission of Tender:**

2.1. Tender with Price bid in duplicate must be submitted along with Part-A to the **Indian Bank, Zonal Office - Poonamallee, No.55, Ethiraj Salai, Chennai - 600008** and as per details given here under. The rates shall be filled in the Schedule given in the tender document.

2.2 The tender in duplicate shall be submitted in two parts in separately sealed envelopes as in brief to the tenderers. The envelope containing the tender offer shall be duly super scribed with the above title.

2.4 The Tenderer is requested to quote strictly as per the terms and conditions and specifications given in the tender document and not to stipulate any deviations. However, deviations, if unavoidable, should be indicated separately indicating the specific page number and clause number against which the deviations are made. Wherever specifications of certain works are not available they shall be deemed to be done as per relevant I.S code.

2.5 Addenda to this tender document, if issued, must be signed and submitted along with the tender document.

2.6 **All pages to be initialed:**

All signatures in tender documents shall be dated and stamped. All pages of tender documents shall be initialed at the lower right hand corner or signed wherever required in the tender papers by the Tenderer or by a person holding power of attorney authorizing him to sign on behalf of the Tenderer before submission of tender.

2.7. **Rates to be in figures and words:**

a) The Tenderer should quote in English both in figures as well as in words the rates and amounts tendered by him in the Schedule of Rates for each item and in such a way that interpolation is not possible. The amount for each item should be worked out and entered and requisite totals given of

all items both in figures and in words. The tendered amount for the work shall be entered in the tender and duly signed by the Tenderer. The contractor 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 total given.

- b) All corrections shall be attested by the initials of the tenderers with the seal of the firm. In case any discrepancy / difference is found on checking between rates quoted by the contractor in words and figures or in the amount worked out by him, the following procedure shall be followed:
1. When there is a difference between the rates in figure and in words, the rates, which correspond to the amount worked out by the contractor, shall be taken as correct.
 2. When the amount of any 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 rates quoted by the contractors in words shall be taken as correct.
 3. When the rates quoted by the contractor in figure and in words tally but the amount is not worked out correctly, rate quoted by the contractor shall be taken as correct and not the amount.
- c) Amendments as mentioned above shall be based on the tender marked "original" only.

2.8. **Corrections and Erasures**

No corrections and alterations in the entries of tender papers shall be permitted. If any they shall be signed and dated in full by the Tenderer. Corrections with white fluid and overwriting are not permitted.

- 2.9 The tender shall contain the names, postal address of the residence and place of business of authorized person signing the tender and shall be signed in /his usual signature. Partnership firms shall furnish the full names of all Partners in the tender. It should be signed in the partnership name by all the partners or by duly authorized representative followed by the name and designation of the person signing. Tender by a Corporation shall be signed by an authorized representative, and a power of Attorney on their behalf shall accompany the tender. A copy of the partnership deed of the firm with names of all partners shall be furnished.

- 2.10 When a Tenderer signs a tender in a language other than English, the total amount tendered should, in addition, be written in the same language. The signatures should be attested by at least one witness.

2.11 **Witness:**

Witnesses and sureties shall be persons of status and propriety and their names, occupation and address shall be stated below their signatures.

3.0 **Information required along with tender:**

The following details are required to be submitted along with tender:

- a) List of Sub contractors (with their valid EB license for the electrical works) to be employed.
- b) List of equipment proposed to be deployed for work.
- c) Site Organization chart with bio-data of Resident Engineer and key personnel proposed to be

deployed at site.

- d) Power of Attorney in the name of persons who has signed the tender document.
 - e) Programme of work.
- 5.0 Any printing or typographical errors/omission in tender document shall be referred to the Architect/Interior Designers appointed by the Bank and their interpretation regarding correction shall be final and binding on Contractor.
- 5.0 **Transfer of Tender Documents:**
Transfer of tender documents purchased by one intending Tenderer to another is not permitted.
- 6.0 **Earnest Money:**
- 6.1 The Tenderer shall pay the amount of Earnest Money as mentioned in the Notice Inviting Tender, by Bank Demand Draft/Banker's Cheque payable to Indian Bank, Zonal Office- Poonamallee, payable at Chennai. No interest on Earnest Money deposited by the Tenderer shall be allowed. No exemption will be allowed. The Tenderer should attach the bank draft/banker's Cheque along with the tender failing which the tender will not be considered. Bank Guarantee will not be accepted.
- 6.2 The Earnest Money of the unsuccessful Tenderers will be refunded within a reasonable period of time without any interest.
- 6.3 The Earnest Money deposited by the successful Tenderer shall be retained as part of Security Deposit.
- 6.4 The Security Deposit shall be forfeited if the Contractor fails to observe any terms and conditions of the Contract.
- 7.0 **Validity:**
- Tenders submitted by Tenderers shall remain valid for acceptance for a period up to 90 days from the date of opening of tender. The Tenderers shall not be entitled during the period of validity, without the consent in writing of Bank to revoke or cancel his tender or to vary the tender given or any terms thereof.
- 8.0 **Addenda:**
- 8.1 Addenda to the tender document may be issued if required to clarify documents or to reflect modifications to the design or contract terms.
- 8.2 Each addendum issued by the Architect/Interior Designer will be distributed to each person or organization to which a set of tender documents has been issued. Each recipient will submit the same along with his tender. All addenda issued by the Architect/Interior Designer shall become part of Tender Documents.
- 9.0 **Right to accept or reject tender:**
- 9.1 The acceptance of a tender will rest with the Bank who does not bind themselves to accept lowest tender and reserve to themselves the authority to reject any or all the tenders received without assigning any reasons. They also reserve the right of accepting the whole or any part of the tender

and the Tenderers shall be bound to perform the same at the rates quoted. All tenders in which any of the prescribed conditions are not fulfilled or are incomplete in any respect or there is any correction not duly signed and dated by the Tenderer are liable to be rejected. For this purpose Tenderer shall quote rates for various items which will be self sufficient to meet their whole costs for executing any / every item. No demand for variations in rates for items executed shall be entertained on the plea of the Bank deciding to delete, alter or reduce the quantities specified in respect of the any item.

- 9.2 The work may be awarded to one or more agencies duly splitting the work at the entire discretion of the Bank and the Architect/Interior Designer. The quoted rates shall hold good for such an eventuality.
- 10.0 **Rates:**
- 10.1 The Bank is not concerned with any rise or fall in the prices of materials and labour. The rates quoted shall include all costs, allowances, taxes including sales tax on works contract or any other charges including any enhanced labour rates etc. which may become effective for any reason including those due to acts of Government/ Statutory Bodies enacted from time to time by the State and or the Central Government. Under no circumstances, shall the Bank be held responsible for compensation or loss to the contractor due to any increase in the cost of labour or materials etc.
- 10.2 The rate quoted in the tender shall also include electric and water consumption charges for construction and erection. If power and water are available at the site, the Contractor shall have to make his own arrangements to obtain the connections from the available sources at his own expense and maintain an efficient service of electric light and power and water and shall pay for the services consumed and maintain the installations at his own cost. If no power and water are available at the site, the Contractor shall have to make his own arrangements to obtain power and water connections and maintain at his own expense an efficient service of electric light and power and shall pay for the electricity consumed.
- 10.3 The rate quoted in the tender by the contractor should include cost of 3 sets of 10" x 12" photographs done by a reputed professional photographer, of the completed work.
- 10.4 Contractor to include cost of pest control treatment of the entire site, including white ants, roaches, rodents for one year from date of virtual completion of the contract.
- 10.5 Contractor to coordinate and assist the Architect/Interior Designer in obtaining all statutory approvals including any other State and Central rules in force. Any expenses incurred in obtaining such approvals are deemed included in the rates quoted by the Contractors.
- 11 The entire interior work shall be guaranteed to be free from manufacturing defects, defective workmanship or materials and any defects that may appear within 12 months from the date of issue of completion certificate which in the opinion of the Bank/Consultants have arisen from bad manufacturing, workmanship or materials, shall upon intimation be made good by the Contractor at his own cost within the time specified. During the said period of 12 months the Contractor shall without any extra cost, carry out all routine and special maintenance of the Interior and attend to difficulties and defects that may arise. The Tenderer / Contractors shall associate with him during the execution and free service period, the operation and maintenance staff of the Bank.
- 12 Payments for the work to be executed under this contract shall be made as per the tender document, and no variation in the mode of payment will be acceptable.
- 13 The Tenderer shall guarantee that the work shall conform to the detailed specifications.

14. Before handing over the interior, 2 copies shall be furnished to the Bank along with 2 sets of "as built" drawings of all the works done as executed by the contractor. In addition to hard copy of as built drawings, the contractor shall also supply a computer floppy containing these drawings in a digital form (done with AutoCAD - 2002 or above version) similarly the operation and maintenance manual etc. shall also be supplied in a floppy with suitable indexing format for easy retrieval and reference.
15. **Signing of the contract:**
 - a. The successful Tenderer shall be required to execute an agreement in the proforma attached with this tender document within 30 days from the date of receipt of the notice of acceptance of tender. In the event of failure on the part of the successful Tenderer to sign the agreement within the above-stipulated period. The Bank reserves the right to forfeit the earnest money/ security deposit and cancel the contract.
 - b. Until the Agreement is formally signed, the Work Order / Letter of Acceptance of Tender issued to the successful Tenderer and accepted by him shall be operative and binding on the Bank and the Contractor.
16. On acceptance of the tender, the name of the accredited representatives of the Tenderer who would be responsible for taking instructions from the Bank shall be mentioned by the Tenderer.
17. If so decided, the Bank reserves the right to appoint PMC (Project Management Consultant) or any other agency to get the quality of works checked, measurements recorded, including certification of bills etc.
18. I / We hereby declare that I / We have read and understood the above instructions for the guidance of the Tenderers.
19. The Bank reserves the right to reproduce partly or fully the items executed on site anywhere in the country premises and no copyright claims shall be made by any contractor of any description from the Bank.
20. The Bank has the right to delete items, reduce or increase the scope of work without the contractor claiming any compensation for the reduction in the scope of work.
21. **LAND FOR CONTRACTORS ESTABLISHMENT**

For the purpose of the construction of the contractor's store-yard, godowns, site office and ancillaries, the contractor may utilize a portion of the land belonging to the employer at such location as would not interfere with the execution of the works. For all these, the contractor shall have to obtain permission of the Architects/ Consultant/Owner/Employer. The contractor shall for this purpose submit to the Architects/ Consultant / Owner / Employer for his approval a plan or plans of the proposed layouts for the site facilities. The Architects /Consultants reserves the right to alter and modify the contractor's proposal as he may deem fit. The contractor may arrange at his own cost lands for the said purpose from municipalities, local bodies, or other authorities if so required as they prescribe but this is subject to approval of Architects/ Consultant/ Owner/Employer.
22. **WATER**

The rates quoted by the contractor shall include all expenditure for providing all the water for the full contract required for the works, including that of the work people and all staff on the site. He shall make his own arrangement for the supply of good quality water suitable for use in the works and the work people. He shall obtain municipal connection and all charges for connection shall be borne by him. If municipal water is not available or inadequate, he shall make other arrangements like sinking

tube wells, making bore well, or transport from outside by tankers or any other suitable means entirely at his cost, and no separate payment for the same will be made.

23. POWER

The contractor shall at his own cost arrange for necessary power for construction and lighting for the entire period of contract. If power is available in the area, the contractor shall make his own arrangement to obtain necessary connections, maintain an efficient service of electric lights and power and shall pay for all requisite charges for the same.

The Owner/Employer, as well as the Architects/ Consultant shall give all the recommendations necessary to obtain power and water-connections from the concerned authorities, but the responsibility for obtaining the same shall rest with the contractor. If any other contractor, appointed by the employer, is required to use water and power, he shall be allowed to use the same and make temporary connections from the supply arranged by the contractor at rates and terms that may be mutually agreed upon by both, failing which, at rates, terms and conditions may be decided by the Architects Consultant/ owner/ Employer will be final and binding upon him.

24. FIRST – AID – FACILITIES

The contractor shall at his own expense arrange to ensure availability of medical attendance promptly when necessary. He shall provide properly equipped first aid station in charge of qualified person at suitable location within easy reach of workmen and staff. The contractor shall also provide for transport of the serious cases to the nearest hospital.

25. FIRE FIGHTING ARRANGEMENTS.

Contractor shall at his expense provide at suitable prominent and easily accessible place requisite number of fire Extinguisher and Buckets, some filled with sand and some with water.

26. REPORT AND RETURNS

Contractor shall maintain at site daily records of progress with regard to work carried out, labour engaged and construction equipment deployed. These will be used at basis of preparation of fortnight by returns, which are to be submitted to Architects/ Consultant/ owner/ Employer regularly in the Progress Reports forms. These daily records shall be made accessible to the Architects/ Consultants/ Owner/ Employer as and when required by him. Enlarged photographs are also to be submitted as and when advised by the Architects Consultant/ owner/ Employer.

27. SITE ORDER BOOK

For the purpose of quick communication the contractor should maintain and preserve a site book with machine numbered pages in triplicate. Any instruction /advice given and recorded in the site order book by the Architects/ Consultant/ owner/ Employer shall be considered as a notice served on the contractor.

28. RATES ALL INCLUSIVE.

The rates shall be inclusive of all duties and cess excluding GST, which will be paid for separately. The rate quoted shall be deemed to be for the finished items of work to be measured at site, and shall be inclusive of cost of all materials, labour, transport, constructional plant and other services like water, power and all that is necessary to the conform to general conditions, special conditions and all other terms and conditions embodied in the contract incidental so far as the necessity for providing the same and specified in or is reasonable inferred for from the contract, as also all overheads and profits. The Bank will not entertain any claim whatsoever in this respect.

29. GOODS AND SERVICES TAX (GST)

The contractor should have a valid GSTIN number, without which the tender will not be considered. It is mandatory on part of the contractor to get his/their firm registered under the new GST regime and will submit a photocopy of the Certificate of the Provisional/Permanent Registration indicating the GSTIN number. The rates quoted shall be **exclusive of GST**. GST will be paid **extra** as per the applicable percentage for the individual heads of works or items whichever is advantageous to the bank. Only the quoted percentage rates of GST by the contractor at the time of submission of the tender will be considered for the evaluation of the tenders. **Revision of GST rates to the successful contractor will not be allowed or paid as extra if the successful contractor at a later date realizes that the GST rates quoted by him is low.** Also if the successful contractor seems to have claimed a higher rate of GST other than the applicable rates, then the contractor will be bound to accept the rates followed by the bank in general. **Any input credit availed by the contractor during the purchase of the raw materials that are required for assembling the furnitures, partitions etc., can be passed on to the Bank either in the form of overall discount on the quoted rates or offering the individual item rates competitively.**

30. **INCOME TAX**

This shall be deducted at source at per rules at prevailing rates, unless certified if any for deductions at lesser rate or nil deduction is furnished from appropriate authority.

31. **ITEM RATE TENDER**

The tenderer should note that the tender is strictly on the item rate basis and his attention is specially drawn to the fact that the rate for each individual item should be correct, workable irrespective of the quality and quantity actually done notwithstanding the quality stated in the schedule of qualities. The quantities shown against the item of works are only approximate and may vary to any extent. No extra whatsoever shall be entertained.

32. **COMPLETION INVENTORY**

The contractor, while reporting completion should also furnish the inventory of all fittings / fixture fixed by him in the work.

33. **GUARANTEE**

Wherever the Tender provides for submission of a specific guarantee to keep any specialized work efficient and trouble free for a specific period, the same shall be submitted from the specialized agency along with a counter guarantee by the main contractor engaged for the work. The specialized agency and the main contractor shall furnish the guarantee as mentioned above on non-judicial stamp papers of appropriate value. If the contractor is required to submit guarantee/ guarantees for any item/items for a period of more than 12 months, the guarantee/guarantees in case of those items shall remain valid even after expiry of the defect liability period of 12 months as stipulated in the contract.

34. **POSSESSION PRIOR TO COMPLETION**

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

35. **COMPLETION DRAWINGS AND PHOTOGRAPHS**

The contractor, while reporting on completion of their work, shall furnish along with to the Consultant- i: "as done" completion drawing of services viz. sanitary/plumbing, civil work etc. in ammonia prints, ii: inventory of all fittings fixed by him in the work, & iii) Enlarged completed photographs of the work.

36. **ADDITIONAL SPECIAL CONDITIONS:**

The scope of works also include to liaison with the local TNEB authorities for enhancing the existing power load connections. The rate quoted by the Contractor shall be inclusive of all charges for the above service and no separate or extra payment will be made for the same. The Statutory payments and deposits payable to the Concerned Departments only will be borne by the Bank.

37. **LABOUR LAWS / REGULATIONS:**

1. The contractor shall employ labour in sufficient numbers directly or through sub-contractor to maintain throughout the period of the contract the rate of progress required according to the approved programme of work and of quality to ensure proper workmanship in accordance with the specifications and drawings and the Architect's instructions.

2. The Service Provider / Vendor / Contractor shall be solely responsible and liable for all payments due to his employees including salaries, Wages, overtime wages (if any), statutory payments, contributions to Provident Fund and Employees' state Insurance, Bonus, Gratuity, provision of uniforms and any other statutory dues payable to his employees under any statute / law of the state or central government.

3. The Service Provider / Vendor / Contractor shall be responsible for fulfilling the requirements of statutory obligations, including those under the Minimum Wages Act., The Payment of Wages Act, The Gratuity Act, The Employees' Provident Fund and Miscellaneous Provisions Act, 1952, Employees State Insurance Act, the Contract Labour (Regulation & Abolition) Act, 1970 and all other applicable laws at his own costs and risks in respect of all persons employed by him. The Contractor shall register himself under the various applicable laws and shall maintain all proper records including, but not limited to, accounting records required by any law, code, practice or corporate policy applicable to them from time to time, including records and returns as applicable under labour legislations. In general, the Contractor shall be responsible for strict compliance of all statutory provisions of the relevant labour laws applicable from time to time. If due to, for any reason whatsoever, the bank is made to pay any amounts on account of omissions or commissions of the Contractor under any of the applicable laws, the Bank shall recover the same from the contractor. The Contractor shall indemnify the bank against any claims, damages, penalties, including costs, in case of any liabilities arising out of his commissions and omissions under any applicable laws.

Accepted
Signature of the Contractor

Witness _____

Address _____

Date _____

Address _____

Date _____

FORM OF AGREEMENT

ARTICLES OF AGREEMENT made in duplicate this ----- day of 2020 between Indian, a body corporate body constituted under the Banking Companies (Acquisition and Transfer of Undertakings) Act 1970 and having its Zonal Office at No.55, Ethiraj Salai, Chennai-600008 represented by The Deputy General Manager, (hereinafter referred to as the "OWNER/EMPLOYER") which expression shall include its successor/s and assignee/s of the ONE PART

AND

M/S having its registered office at (hereinafter referred to as the 'CONTRACTOR') which expression shall include its successor/s and assignee/s of the OTHER PART.

WHEREAS the Owner is desirous of executing the proposed works for **Interior, Electrical, Data Cabling, Fire Alarm & Burglar Alarm system works of Branch & E-Corner for Indian Bank at Manali New Town** (hereinafter referred to as the 'works').

AND WHEREAS the Owner/Employer in order to effectively carry out the said works engaged **M/s. Premkumar Architects, A-3, Akash flats, 12-C, Sengalaniamman koil street, Narayanapuram, Pallikaranai, Chennai – 600 100.** (hereinafter referred to as The ARCHITECTS/ CONSULTANTS) to prepare specifications, describing the works to be executed, to call for tenders from contractors for the job, to open tenders received at the office of the OWNER/EMPLOYER, to scrutinize and recommend to the Owner/Employer the name or names of the Contractor or Contractors so recommended after having the approval and acceptance thereof from the Owner/Employer.

AND WHEREAS the Owner/Employer has caused the specifications, priced schedule of quantities of said works as per General Conditions of Contract, Special Conditions, Additional Condition and Instructions to the tenderer prepared with the assistance of the said Architects/Consultants subject to which the offer of the Contractor shall be accepted.

AND WHEREAS the tender of the Contractor for construction of the said works has been approved and accepted for a sum of Rs. _____ by the Owner.

AND WHEREAS the contractor has deposited with the owner Rs...../- (Rupees..... only) as security deposit for the due performance of the Agreement.

AND WHEREAS the said Architects/Consultants/Bank has issued work order thereafter to the Contractor.

AND WHEREAS the relevant drawings inclusive of the Specifications, Priced Schedule Of Quantities, General Conditions Of Contract, Special Conditions, Additional Conditions and Instructions to the Tenderers including all other conditions as mentioned in the tender document and all correspondence exchanged by or between the parties from the date of submission of the tender till the award of the work, both letters inclusive (hereinafter collectively referred to as 'the said conditions') have been signed by the parties hereto and the contractor has agreed to execute the works upon and subject to the said conditions.

NOW IT IS HEREBY AGREED AS FOLLOWS:

1. In consideration of the said contract payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions execute and complete the works and such further instructions as may be furnished to the contractor by the owner/ employer through the architects /consultants as described in the said specifications and the said priced Schedule of Quantities.
2. The payment to the contractor will be made at the time and in the manner specified in the conditions of contract.
3. The term the 'Architects/Consultants' in the said conditions shall mean the said **M/s. Premkumar Architects, A-3, Akash flats, 12-C, Sengalaniamman koil street, Narayanapuram, Pallikaranai, Chennai – 600 100** or in the event of the said Architect /Consultants ceasing to be the Architect /Consultants for the purpose of this contract for whatever reason, such other person or persons as shall be nominated for that purpose by the Owner/Employer, provided always that no person subsequently appointed to be the Architect /Consultants under this contract shall be entitled to disregard or over rule any decision or direction or approval given or expressed in writing by the Outgoing Architect /Consultants for the time being if the same had been done under instruction from the owner/ Employer.
4. The agreement and documents are mentioned above shall form the part of this contract and the parties hereto shall respectively abide by, submit themselves to the said conditions and perform the agreement on their part respectively in the said conditions contained.
5. This contract is neither a fixed lump sum contract nor a piecework contract to carryout the work in respect to Interior, Electrical, Data Cabling, Fire Alarm & Burglar Alarm works of Branch & E-Corner relating to the Manali new town and all subsidiary works connected therewith within the same site as may be ordered to be done from time to time by the said Owner / Employer through the Architect /Consultants or other Architect /Consultants as the case may be even though the said works may not be shown on the drawings or described in the said specifications or the priced schedule of quantities described and to be paid for according to the actual measured qualities at the rates contained in the Schedule of rates and probable quantities or as provided in the said conditions.
6. Not with standing what are stated in the general conditions and instructions to the tenderer and hereinbefore stated, the Owner / Employer through the Architect /Consultants reserves to himself the right to alter the nature of the work and of adding to or omitting any items of works from the contract or of having portions of the same carried out departmentally or otherwise and such alternations or variations shall be carried out without prejudice to this contract.
7. Time shall be considered as the essence of this contract and the contractor hereby agrees to commence the work on the day of handing over of the site or within the three days from the date of issue of formal work order whichever is earlier as provided for in the said conditions and to complete the entire work within the stipulated time subject nevertheless to the provisions of extension of time.
8. Any dispute arising under the agreement between the parties hereto shall be referred for adjudication to a sole arbitrator in the manner and in terms of the provisions as laid down in the General Conditions of Contract. The award of the arbitrator shall be final and binding on both the parties.
9. All disputes arising out of or in any way connected with this agreement shall be deemed at Chennai and Courts in Chennai shall have jurisdiction to determine the same.
10. That the several parts of this contract have been read by the contractor and fully understood by the contractor.

In witness whereof the Employer and the Contractor have set their respective hands to these presents through their authorized official and the said two duplicates hereof to be executed on its behalf of the day and year first herein above written.

SIGNED by the said
Owner / Employer _____

In the presence of:

(1). Signature _____
Name and Address _____

(2). Signature _____
Name and Address _____

SIGNED by the said
Contractor _____

In the presence of:

(1). Signature _____
Name and Address _____

(2). Signature _____
Name and Address _____

GENERAL CONDITIONS OF CONTRACT

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GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual items in the schedule of quantities and in the specifications and conditions laid down hereinafter and in the drawings, the work shall be carried out as per standard specifications and under the direction of Employer/Architects.

1. INTERPRETATION:

In construing these condition, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires:

i) **Employer:** The term Employer shall denote **Indian Bank** with its Zonal Office – Poonamallee at No.55, Ethiraj Salai, Chennai-600008 and any of its employees representative authorized on their behalf.

ii) **Architects/Consultants:** The term Architects shall mean “**M/s. Premkumar Architects, A-3, Akash flats, 12-C, Sengalaniamman koil street, Narayanapuram, Pallikaranai, Chennai – 600 100.**” or in the event of his/their ceasing to be the Architects for the purpose of this contract such other person/s as the Employer shall nominate for the purpose.

iii) **Contractor:** The term contractor shall mean the person/persons, firm/company whose tender has been accepted by the Owner/Employer and includes contractor’s successor and permitted assignee/s.

iv) **Site:** The site shall mean the site where the works are to be executed as mentioned including any building and erections thereon allotted by the Employer for the contractor’s use.

v) **Site Engineer:** The “Site Engineer” shall be appointed and paid by the Bank. The Bank may also determine the number of Site Engineers and the supporting staff at site office to assist them and also whether the Site Engineer shall be temporary or permanent. As far as possible, the Site Engineer should assume charge of his post before the contractor reports on site of work. Where more than one Site Engineer is appointed, one of them shall be designated as Chief site Engineer by the Premises Department and the other Site Engineer shall be reporting to the Chief Site Engineer. Wherever PMC is engaged, Site Engineer, if any, will work in close co-ordination with PMC.

vi) **Drawings:** The work is to be carried out in accordance with the drawings, specifications, the schedule of quantities and any further drawings, which may be supplied, or any other instruction, which may be given by the Employer during the execution of the work. All drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer/Architects shall be given access to such drawings or schedule of quantities whenever necessary.

In case any detailed Drawings are necessary, the contractor shall prepare such detailed drawings and/or dimensional sketches therefore and have it confirmed by the Employer/Architects/as case may be prior to taking up such work.

The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings specifications and schedule of quantities or to additional instructions at least 10 days ahead from the time when it is required for implementation so that the Employer may be able to give decision thereon.

vii) **“The Works”** shall mean the work or works to be executed or done under this contract.

viii) **“Act of Insolvency”** shall mean any act as such as defined the Presidency Towns Insolvency Act or in Provincial Insolvency Act or any amending statuettes.

ix) **“The Schedule of Quantities”** shall mean the schedule of quantities as specified and forming part of this contract.

x) **“Priced Schedule of Quantities”** shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.

2. Scope:

The work consists of executing Interior, Electrical, Data Cabling, Fire Alarm & Burglar Alarm system works of Branch & E-Corner relating to the existing Manali New Town of Indian Bank and all subsidiary works connected therewith within the same site in accordance with the “drawings” and “Schedule of Quantities”. It includes furnishing all materials, labour, tools and equipment and management necessary for and incidental to the construction and completion of the work. All work, during its progress and upon completion, shall conform to the lines, elevations and grades as shown on the drawing/detailed specifications furnished by the Employer/Architects. Should any detail essential for efficient completion of the work be omitted from the drawings/specifications it shall be the responsibility of the contractor to inform the Employer/Architects and to furnish and install such detail with Employer’s/Architect’s concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use.

Employer/Consultant may in their absolute discretion issue further drawings and/or written instructions, detail, directions and explanations, which are hereafter collectively referred to as “The Employer’s/Architect’s instructions” in regard to:

- a) The variation or modification of the design quality or quantity of works or the addition or omission or substitution of any work.
- b) Any discrepancy in the drawings or between the schedule of quantities and/ or drawings and /or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any other material thereof.
- d) The demolition removal and/or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any persons employed thereupon.
- f) The opening up for inspection of any work covered up.
- g) The rectification and making good of any defects under clauses hereinafter mentioned those arising during the maintenance period (Defects Liability period)

The contractor shall forthwith comply with and duly execute any work comprised in such Employer’s/Architect’s instruction, provided always that verbal instructions, directions and explanations given to the contractor’s or his representative upon the works by the Employers / Architects shall, if involving a variation, be confirmed in writing to the contractor/s within seven days. No works, for which rates are not specifically mentioned in the priced schedule of quantities, shall be taken up without written permission of the Employer or his agent / Architects. Rates of items not mentioned in the priced schedule of quantities shall be fixed by the employer in consultation with the Architects as provided in Clause “Variation”.

The contractor shall set up a field laboratory with necessary equipments for day to day testing of materials like grading of coarse and fine aggregate, silt content and bulking of sand etc.

Regarding all factory made products for which ISI marked products are available, only products bearing ISI

shall be used in the work.

3. **Tenderer shall visit the Site.**

Intending tenderer shall visit the sites and make himself thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport condition, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc., for proper execution of work as indicated in the drawings / specifications. The successful tenderer will not be entitled to any claim of compensation for difficulties which existed before the commencement of the work or which in the opinion of the Employer / Consultant might be deemed to have the reasonably been inferred to be so existing before commencement to work.

4. **Tenders**

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on the last page together with initials on every page. Initial / signature will indicate the acceptance of the tender papers by the tenderer.

The schedule of quantities shall be filled in as follows:

- i) The "Rate" column to be legibly filled in ink in English both in figures and words.
- ii) Amount column to be filled in for each item and the amount for each sub head as detailed in the "Schedule of Quantities".
- iii) All corrections are to be initialed.
- iv) The "Rate Column" for alternative items shall be filled up.
- v) The "Amount" column for alternative items of which the qualities are not mentioned shall not be filled up.
- vi) In case of any errors / omissions in the quoted rates, the rates given in the tender marked "Original" shall be taken as correct rates.

No modifications, writings or corrections can be made in the tender papers by the tenderer, but may at his option offer his comments or modifications in a separate sheet of paper attached to the original tender papers.

The Employer reserves the right to reject the lowest or any tender and also to discharge any or all of the tenders for each section or to split up and distribute any item or work to any specialist firm or firms, without assigning any reasons.

The tenderers should note that the tender is strictly on the item rate basis and their attention is drawn to the fact that the rates for each and every item should be correct, workable and self-supporting. If called upon by the Employer / Consultant detailed analysis of any or all the rates shall be submitted. The Employer / Consultant shall not be bound to recognize the contractor's analysis.

The works will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract.

All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly, related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump-sum charges in the tender in respect of any item of works, the payment of such items of work be made for the actual work done on the basis of lump-sum charges as will be

assessed to be payable by the Employer / Consultant.

The employer has power to add to, omit from any work as shown in drawings or described in specification or included in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Employer. No variation shall vitiate the contract.

The tenderer shall note that his tender shall remain open for consideration for a period of three months from the date of opening of the tender.

5. Agreement

The successful contractor shall be required to sign agreement as per the draft agreement within the time as stipulated herein before the date of issue of the formal work order and shall pay for all stamps and legal expenses, incidental thereto.

6. Permits and Licenses

The contractor shall pay all royalties and license fee. He shall also defend all suits and claims for infringement of any patent rights and shall save the Employer harmless from loss on account thereof.

Permits and licenses for release of materials which are under Government control will be arranged by the contractor. The employer will render necessary assistance, sign any forms or applications that may be necessary.

The Employer/Architect/Consultants shall be indemnified against all Government or legal actions for theft or misuse of any Government controlled materials in the custody of the contractor.

7. Government and Local Rules

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

8. Taxes and Duties

The tenderers must include in their tender prices quoted for all duties royalties, GST or any other taxes or local charges if applicable. No extra claim on this account will in any case be entertained.

9. Quantity of Work to be executed

The quantities shown in the schedule of quantities are intended to cover the entire work indicated in the schedule of works but the Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore. If at any time after the commencement of the work, the Employer/Consultant shall for any reason whatsoever not require the whole work thereof as specified in the tender, to be carried out, the consultant / employer shall give notice in writing of the fact to the contractor who shall have no claim to any payment or compensation whatsoever on amount of any profit or advantage which he might have derived from the execution of the work in full but which he did not derive in consequence of the full amount of the work not having been carried out, neither shall he have any claim for compensation by

reason of any alternations having been made in the original specification and instructions which shall involve any curtailment of the work as originally contemplated.

10. Other Persons Engaged by the Employer

The employer reserves the right to execute any part of the work included in this contract or any work which is not included in this contract by other Agency or persons and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The general civil contractor shall extend all co-operations in this regard.

11. Earnest Money and Security Deposit

The tenderer will have to deposit an amount of **Rs.19,000.00/- (Rupees Nineteen Thousand Only) for Manali New Town** in the form of individual Bank Drafts drawn in favour of Indian Bank, Zonal Office - Poonamallee, payable at Chennai at the time of submission of tender as Earnest Money. The employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderers will be refunded without any interest soon after the decision to award the work is taken or after the expiry of the validity period of the tender.

Initial Security deposit:

The successful tenderer to whom the contract is awarded will have to deposit an initial security deposit a further sum to make up 2% of the value of the accepted tender including the Earnest Money, subject to a ceiling of Rs.5.00 Lakhs. The initial Security Deposit will have to be made within 14 days from the date of acceptance of tender, failing which the Employer at his discretion may revoke the letter of acceptance and forfeit the Earnest Money Deposit furnished along with the tender. The Initial Security Deposit will be invested by the Employer in a fixed deposit account for the duration of the contract period. It shall be refunded to the contractor along with accrued interest within fourteen days after the issue of certificate of virtual completion.

Apart from the initial Security Deposit made as above, retention money shall be deducted from progressive running bills @ 8% of the gross value of each running bill until the Total Security Deposit, i.e., the initial Security Deposit plus the retention money equals 10% of the accepted contracted sum for the works.

The retention amount will be refunded to the contractor 14 (fourteen) days after the end of defects liability provided of one year from the virtual completion date after he had satisfactorily carried out all works and attended to all defects in accordance with the condition of all contract.

A part of the Security Deposit if and as decided by a constituent Bank can also be furnished in the form of a Bank Guarantee on a Bank other than of the constituent Bank.

50% of the total retention will be refunded to the contractor on completion of work subject to the following: -

- i). Issue of the virtual completion certificate by the consultant.
- ii). Contractor's removal of his materials, equipment, labour force, temporary sheds/stores etc. from the site. Exception for small presence required if any for the defect liabilities period and approved by the Bank.

Balance 50% will be released to the contractor within a reasonable period after the end of 'Defects Liability Period' (of one year) provided he has satisfactorily carried out all the works, submitted all documents including as built drawings etc. No interest is allowed on retention money and earnest money deposit.

The retention amount can be kept with the Bank in the form of Fixed Deposit pledged to the Bank or Bank Guarantee.

Further, if some dues to the Employer from the contractor have still to be recovered, then the Employer reserves the right to withhold of payment of so much of retention money as in his opinion, represents the cost of the same.

12. Contractor to Provide Everything Necessary

The contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provided that the same can be reasonably inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing, refer the same to the Employer/Architects/Consultant whose decision shall be final and binding. The contractor shall provide himself for ground and fresh water for carrying out of the works at his own cost. The Employer shall on no account be responsible for the expenses incurred by the contractor for hired ground or fresh water obtained from elsewhere.

The rates quoted against individual items will be inclusive of everything necessary to complete the said items of work within the contemplation of the contract, and beyond the unit price no extra payment will be allowed for incidental or contingent work, labour and/or materials inclusive of all taxes and duties whatsoever except for specific items, if any, stipulated in the tender documents.

The contractor shall supply, fix and maintain at his own cost, for the execution of any work, all tools, tackles, machineries and equipments and all the necessary centering, scaffolding, staging, planking, timbering, strutting, shoring, pumping, fencing, boarding, watching and lighting by night as well as by day required not only for the proper

execution and protection of the said work but also for the protection of the public and safety of any adjacent roads, streets, walls, houses, buildings, all other erections, matters and things and the contractor shall take down and remove any or all such centering, scaffolding, planking, timbering, strutting, shoring etc., as occasion shall be required or when ordered so to do, and shall fully reinstate and make good all matters and things disturbed during the execution of works to the satisfaction of the Employer/Consultant.

The contractor shall also provide such temporary road on the site as may be necessary for the proper performance of the contract and for his own convenience but not otherwise. Upon completion, such roads shall be broken up and leveled where so required by the drawings/specifications unless the Employer shall otherwise direct.

The contractor shall at all times give access to workers employed by the Employer or any men employed on the buildings and to provide such parties with proper sufficient and if required, special scaffolding, hoists and ladders and provide them with water and lighting and leave or make any holes, grooves etc., in any work, where directed by the employer as may be required to enable such workmen to lay or fix pipes, electrical wiring, special fittings etc. The quoted rates of the tenderers shall accordingly include all these above-mentioned contingent works.

13. Time of Completion, Extension of Time & Progress Chart

13.1 Time of Completion: The entire work is to be completed in all respects within the stipulated period. The work shall be deemed to be commenced within fourteen days from the date of acceptance letter or date of handing over of sites, whichever is later. Time is the essence of the contract and shall be strictly observed by the contractor.

The work shall not be considered as complete until the Employer/Consultant have certified in writing that this

had been completed and the Defects Liability Period shall commence from the date of such certification.

13.2 Extension of Time: If in the opinion of the Employer /Architect/Consultant the works be delayed.

(a) Reason of any exceptionally inclement weather.

or

(b) By reason of the instruction from the Employer in consequences of proceedings taken or threatened by or disputes, with adjoining or neighboring owners.

or

(c) By the works, or delay, of other contractors or tradesmen engaged or nominated by the Employer and not referred to on the specification.

or

(d) By reason of authorized extra and additions

or

(e) By reason of any combination of workmen or strikes or lock out affecting any of the building trades.

or

(f) From other causes which the Employer may consider being beyond of the control of the contractor, the Employer at the completion of the time allowed for the contract shall make fair and reasonable extension in respect therefore. In the event of the Employer feeling to give possession of the site upon day specified above, the time completion should be extended suitably.

In case of such strikes or lockouts, as are referred to above, the contractor shall, immediately give the Employer, written notice thereof. Nevertheless, the contractor shall use his best endeavors all that to prevent delay, and shall do all that may be reasonably required, to the satisfaction of the Employer to proceed with the works and on his doing so that it will be ground of consideration by the Employer for an extension of time as above provided. The decision of the Employer as to the period to be allowed for an extension of time for completion hereunder (Which decision shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lock-out granted, determine and declare the final completing date. The provision in clause 14 with respect to payment of liquidated damage shall, in such case, be read and construed as if the extended date fixed by the Employer were substituted for and this damage shall be deducted accordingly.

13.3 Progress of Work: During the period of construction the contractor shall maintain proportionate progress on the basis of a Programme Chart submitted by the contractor immediately before Commencement of work and agreed to by the Employer/Architects. Contractor should also include planning for procurement of scarce material well in advance and reflect the same in the Programme Chart so that there is no delay in completion of the project.

14. Liquidated Damages

Should the work be not completed to the satisfaction of the Employer/Architect/Consultant within the stipulated period, the contractor shall be bound to pay the Employer a sum calculated as given below by way of liquidated damages and not as penalty during which the work remains uncommenced or unfinished after the expiry of the completion date.

1.00% of the accepted contract amount shown in the tender per week subject to a ceiling of 10% of the accepted contracted sum.
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15. Action when whole of security deposit is forfeited

In any case which under any clauses of this contract, the contractor shall have rendered himself liable to pay liquidated damages amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) the Employer/ Consultant shall have power to adopt any of the following courses as they may deem best suitable to the interest of the Employer:

- a) To rescind the contract (of which rescission in writing to the contractor under hand of the Employer shall be conclusive evidence), and in which case the security deposit of the contractor shall stand forfeited and be absolutely at the disposal of the Employer.
- b) To employ labour by the Employer and to supply materials to carry out the work, or any part of the work, debiting the contractor with the cost of the labour and price of material (of the amount of which cost and price of a certificate of the consultant shall be final and conclusive against the contractor) and crediting him with the value of the work done, in all respects in the same manner and at the same rates as if it had been carried out by the contractor under the terms of this contract and the certificate of the Employer as to the value of the work done, shall be final and conclusive against the contractor.
- c) To measure up the work of the contractor, and to take such part thereof as shall be unexecuted, out of his hands, and to give it to another contractor to complete in which case any expense which may be incurred in excess of the sum which would have been paid to the original contractor, if the whole would had been paid to the original contractor, if the whole work had been executed by him (of the amount of which excess the certificates in writing of the Consultant shall be final and conclusive) shall be borne and paid by the original contractor and may be deducted from any money due to him by the Employer under the contract or otherwise, or from his security deposit or the proceeds of sale thereof, or a sufficient part thereof.

In the event of any of the above courses being adopted by the Employer / Consultant the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials or entered into any engagements, or make any advances on account of, or with a view to the execution of the work or the performance of the contract.

And in case the contract shall be rescinded under the provision aforesaid, the contractor shall not be entitled to recover or be paid any sum of any work thereto for actually performed under this contract unless and until the Employer/Consultant will have certified in writing and performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified.

16. Tools, Storage of Materials, Protective Works and Site Office Requirements.

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

All drawings maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants, and other insects.

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

The contractor shall provide a suitable temporary hut for the watchmen and clear the same when no longer required and to provide all necessary attendance, light etc., required.

The contractor shall arrange for temporary latrines for the use of workers and field staff and keep the same in a clean and sanitary condition to the satisfaction of the Public Health Authorities and shall cause such latrines and soil to be cleared away whenever necessary and shall make good all the works disturbed by these

conveniences.

Every precaution shall be taken by the contractor to prevent the breeding of mosquitoes on the works during the construction, and all receptacles, cisterns, water tanks etc., used for the storage of water must be suitable protected against breeding of mosquitoes. The contractor shall indemnify the Employer against any breach of rules in respect of anti-malarial measures.

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

Protective Measures: The contractor from the time of being placed in possession of the site must make suitable arrangements for watching, lighting and protecting the works, the site and surrounding property by day, by night, on Sundays and other holidays.

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

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

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

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

All measuring tapes shall be of steel and suitable scaffolding and ladders that may be required for the safety ensuring measures shall be supplied by the contractor.

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

The contractor should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc., by sub-contractor for their work or for work to be carried out by other agencies employed by the Employer/Consultant.

17. Notice and Patents of Appropriate Authority and Owners

The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-laws of any authorities, and/or any water, lighting and other companies, and/or authorities with whose system the structures were proposed to have connection and shall before making any variations from the drawings or specification that may be associated to so conform, give the Employer/Consultant written notices specifying the variations proposed to be made and the reasons for making them and apply for instruction thereon. The Employer/Consultant on receipt of such intimation shall give a decision within a reasonable time.

The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be

given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer.

The contractor shall indemnify the Employer against all claims in respect to patent rights, royalties, damages to buildings, roads or members of public in course of execution of work and shall defend all actions arising from such claims and shall keep the Employer saved harmless and indemnified in all respects from such actions, costs and expenses.

18. Cleaning site and Setting out Works

The site shown in the plan shall be cleaned of all obstructions, loose stone, and materials rubbish of all kinds. All holes or hollows whether originally existing or produced by removal of loose stone or materials shall be carefully filled up with earth well rammed and leveled off as directed at his own cost. The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work and for the correctness of the positions, levels, dimensions and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work, the contractor shall at his own expenses rectify such errors, if called upon to the satisfaction of the Employer. The contractor shall further set out the works to the alternative position at the site until one is finally approved and the rates quoted in his tender should include for this and no extra on this account will be entertained.

19. Datum

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

20. Benches

The contractor is to construct and maintain proper benches of all the main walls, in order that the lines and levels may be accurately checked at all times. These benches will consist of salwood post of adequate length and minimum diameter 75 mm to be driven in the ground at suitable distance as directed encased with brickwork. The wire nails will be driven on the top of salwood post on the center lines of columns, walls, inside and outside faces of foundation trenches, in order that lines may be stretched between the benches and accurate intersection of excavation. Centerline of walls columns etc., may be clearly indicated and checked at any time if it is so required.

21. Contractor immediately to Remove all offensive Matters

All soil, filth or other matters of any offensive nature taken out any trench, sewer, drain, cesspool or other place shall not be deposited on the surface but shall be at once carted away by the contractor to a safe place as per rules of the appropriate authorities/instruction of the Employer/Consultant. The contractor shall keep the foundations and works from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plant to the satisfaction of the Employer. The contractor shall arrange for the disposal of the water so accumulated to the satisfaction of the Employer and local authority and no claims will be entertained afterwards if he does not include in his rates for the purpose.

22. Access

Any authorized representative of the Employer/Consultant shall at all reasonable times have free access to the work and/or to the workshops, factories or other places where materials are being prepared or constructed for the work and also to any place where materials are lying or from where they are being obtained, and the contractor shall give every facility to the Employer or their representatives necessary for

inspection and examination and test of the materials and workmanship. Except the representatives of the Employer and Consultant no person shall be allowed at any time without the written permission of the Employer.

23. Materials, Workmanship, Samples, Testing of Materials

All the works specified and provided for in the specifications of which may be required to be done in order to perform and complete any part there of shall be executed in the best and most workmanlike manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Employer/Consultant during the execution of the work, and to his entire satisfaction.

If required by the Employer/Consultant the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer/Consultant at his own cost to prove that the materials etc. under test conform to the relevant I.S. Standard or as specified in the specifications. The necessary charges for preparation of mould (in case of concrete cube) transporting, testing etc., shall have to be borne by the contractor. No extra payment on this account should in any case be entertained.

All materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charge for import duties, sales tax, octroi and other charges and must be the best of their kind available and the contractor/s must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workmanlike manner. Samples of all materials to be used must be submitted to the Employer/Consultant when so directed by the Engineer/Consultant and written approval from Employer/Consultant must be obtained prior to placement of order.

During the inclement weather the contractor shall suspend concreting and plastering for such time as the Employer/Consultant may direct and shall protect from injury all work when in course of execution. Any damage (during constructions) to any part of the work for any reasons due to rain, storm, or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the contractor shall take all precautions necessary for the protection of work at his own expenses shall make good any damage arising from any of these causes.

The contractor shall cover up and protect from damage, from any cause, all new work and supply all temporary doors, protection to windows, and any other requisite protection for the execution of contractor and any damage caused must be made good by the contractor at his own expenses.

24. Removal of Improper Work

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

unsound work or bad materials.

25. Site Engineer

The term "Site Engineer" shall mean the person appointed and paid by the Architect to superintend the work. The contractor shall afford the Site Engineer every facilities and assistance for examining the works and materials and for checking and measuring work and materials. The Site Engineer shall have no power to revoke, alter, enlarge or relax any requirements of the contractor or to sanction any day work, additions, alterations, deviations or omissions or any extra work whatever, except in so far as such authority may be specifically conferred by a written order of the Employer.

The Site Engineer shall have power to give notice to the contractor or to his foreman, of non-approval of any work or materials and such work shall be suspended or the use of such materials shall be discontinued until the decision of the Employer/Consultant is obtained. The work will from time to time be examined by the Consultant, Engineer from the Premises Department of the Employer and the Site Engineer if any. 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 complete. Subject to the limitations for this clause the contractor shall take instructions only from the Consultant/Employer or his representatives.

26. Office Accommodation for the Site Engineer

The contractor shall provide, erect and maintain at his cost a separate simple watertight office accommodation for the Site Engineer. This accommodation shall be well lighted and ventilated and provided with windows, door with a lock. The Site Engineer's office shall be a minimum of 150sq.ft and the contractor shall provide a desk, chairs, drawers for keeping drawings, a cupboard having proper lock and a tack board for displaying drawings. The accommodation shall be demolished when directed.

27. Contractor's Employees

The contractor shall employ technically qualified and competent supervisors for the work who shall be available (by turn) throughout the work hours to receive and comply with the instructions of the Employer/Consultant. The contractor shall engage at least one experienced Engineer as site-in-charge for execution of the work. The contractor shall employ in connection with the work persons having the appropriate skill or ability to perform their job efficiently.

The contractor shall employ local labourers on the work as far as possible.

No labourer below the age of sixteen years and who is not an Indian National shall be employed on the work.

Any labourer supplied by the contractor to be engaged on the work on day-work basis either wholly-or partly under the direct order or control of the Employer on his representative shall be deemed to a person employed by the contractor.

The contractor shall comply with the provisions of all labour legislation including the requirements of

- a) The Payment of Wages Act.
- b) Employer's Liability Act.
- c) Workmen's Compensation Act.
- d) Contract Labour (Regulation & Abolition) Act, 1970 and Central Rules 1971.
- e) Apprentices Act 1961
- f) Minimum Wages Act.
- g) Any other Act or enactment relating thereto and rules framed there under from time to time.

The contractor shall keep the Employer saved harmless and indemnified against claims if any of the workmen

and all costs and expenses as may be incurred by the Employer in construction with any claim that may be made by any workmen.

The contractor shall comply at his cost with the order of requirement of any Health Officer of the State or any local authority or of the Employer regarding the maintenance of proper environmental sanitation of the area where the contractor's labourers are housed or accommodated for the prevention of small pox, cholera, plague, typhoid, malaria and other contagious diseases. The contractor shall provide, maintain and keep in good sanitary condition adequate sanitary accommodation and provide facilities for pure drinking water at all times for the use of men engaged on the work and shall remove and clear the same on completion of the works. Adequate precautions shall be taken by the contractor to prevent nuisance of any kind on the works or the lands adjoining the same.

The contractor shall arrange to provide first-aid treatment to the labourers engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with execution of the works, report such accident to the Employer and also to the Competent Authority where such report is required by law.

28. Dismissal of Workmen

The contractor shall on the request on the Employer/Consultant immediately dismiss from works any person employed thereon by him, who may in the opinion of the Employer/Consultant be unsuitable or incompetent or who may misconduct himself.

Such discharges shall not be the basis of any claim for compensation or damages against the Employer/Consultant or any of their officer or employer.

29. Assignment

The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the Employer and no subletting of the contract or from active superintendence of the work during their progress.

30. Nominated Sub-Contractor

All specialists, Merchants, Tradesmen and others executing any work or supplying and fixing any goods for which prime cost prices or provisional sums are included in the Schedule of Quantities/Rates and/or specifications and who may be nominated or selected by the Employer are hereby declared to be sub-contractor employed by the contractor and are herein referred to as nominated sub-contractor.

No nominated sub-contractor shall be employed on or in connection with the work against whom the contractor shall make reasonable objection or where the Employer and contractor shall otherwise agree who will not enter into a contract provided:

- a) That the nominated sub-contractor shall indemnify the contractor against the same obligations in respect to the sub-contract as the Contractor is under in respect of this contract.
- b) That the nominated sub-contractor shall indemnify the contractor against claims in respect of any negligence by the sub-contractor, his servants or agents or any misuse by him or them of any scaffolding or other plants and machineries and properties of the contractor or under any workman's compensation Act in force.
- c) Payment shall be made to the nominated sub-contractor by the contractor within fourteen days of his

receipt of the Consultant's certificate provided that before any certificate is issued the contractor shall upon request furnish to the Consultant proof that the nominated sub-contractor's accounts included in previous certification have been duly discharged, in default whereof the Employer may pay the same upon a certificate of the Consultant and deduct the amount thereof any sums due to the contractor. The exercise of this power shall not create privity of contract between the Employer and the sub-contractor.

31. Damage to Persons and Property, Insurance Etc.

The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The clause shall be held to include inter-alia, any damage to buildings whether immediately adjacent or otherwise, and any damage to roads, streets, footpaths or ways as well as damages caused to the buildings and the works forming the subject of this contract by rain, wind or other inclemency of the weather. The contractor shall indemnify the Employer and hold harmless in respect to all and expenses arising from any such injury or damages to persons or property as aforesaid and also in respect of any claim made in respect of injury or damage under any acts of compensation or damage consequent upon such claim.

The contractor shall reinstate all damage of every sort mentioned in this clause, so as to deliver the whole of the contract works complete and perfect in every respect so as to make good or otherwise satisfy all claim for damages to the property or third parties.

The contractor shall affect the insurance necessary and indemnify the Employer entirely from all the responsibility in this respect. **The insurance must be placed with a company approved by the Employer and must be effected jointly in the name of the contractor and the Employer and the policy lodged with the latter.** The scope of insurance is to include damage or loss to the contract itself till is made over in a complete state. Insurance is compulsory and must be effected from the very initial stage. The contractor shall also be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

The employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due or to become due to the contractor.

32. Insurance

Unless otherwise instructed the contractor shall insure the works and keep them insured until the virtual completion of the contract against loss or damage by the fire and/or earthquake, flood. The insurance must be placed with a company approved by the Employer, in the joint names of the Employer and the contractor for such, amount and for any further sum if called to do so by the employer, the premium of such further sum being allowed to the contractor as an authorized extra.

Moreover, the contractor will be required to obtain "Workmen's Compensation Insurance" from an approved insurance company at his own cost.

Insurance is compulsory and the Contractor shall effect insurance before undertaking construction work and deposit the policy and receipt for premium paid with the Employer within 21 (twenty one days) from the date of issue of work order unless otherwise instructed. In default of the contractor insuring as provided above, the Employer on his behalf may so insure and may deduct the premiums paid from any money 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 Company should they elect to do so, proceed with due diligence with the completion of the works in the same manner as though the fire has not occurred and in all respect under the conditions of the contract. The contractor in case of rebinding or reinstatement after fire shall be entitled to extension of time for completion as the Employer may deem fit.

33. Accounts Receipts & Vouchers

The contractor shall, upon the request of the Employer furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works this contract.

If the contractor shall use materials less than what he is required under the contract, the values of the difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The deduction of the Employer shall be final and binding on the contractor as the amount of materials the contractor is required to use for any work under this contract.

34. Measurement of work

The contractor will record the measurements in the approved printed measurement books available in the Consultant's office on payment, and submit measurements for verification and endorsement of Project Management Consultant/Site Engineer and site representative's of the Consultant, if any. The contractor should submit the bill to the Consultant with such endorsement.

The Consultant shall upon receipt of the bill intimate to the contractor that he requires the work to be measured, and the contractor shall forthwith attend or send a Qualified Agent to assist the Consultant or the Consultant's representative/Employer's Representatives in taking such measurements and calculations and to furnish all particulars or to give assistance required by either of them.

Should the contractor not attend or neglect or omit to send such Agent then the measurement taken by the Consultant or a representative approved by him shall be taken to be the correct measurement of the work.

The Contractor or his Agent may at the time of measurement take such notes and measurements as he may require. All authorized extra work, omissions and all variations made without the Consultant's knowledge, if subsequently sanctioned by him in writing, with the approval of the Employer shall be included in such measurements. The final measurement should be done within three months from the date of completion of work jointly by the Consultant and/or his representative. If the contractor fails to comply, the measurements taken by the Consultant will be final.

35. Method of measurement

Unless otherwise mentioned elsewhere in the tender document, measurement will be on the net quantities of work produced in accordance with up to date rules laid down by the Indian Standard Institution. In the event of any dispute with regard to the measurement of the work executed, the decision of the Consultant/Employer shall be final and binding on the contractor.

36. Action where no specification

In the case of any class of work for which there is no such specification in Technical Specification, such be carried out in accordance with the I.S. specification, and in the event of there being no I.S. specification, then in such case the work shall be carried out in all respects in accordance with the instruction and requirements of the Consultant/Employer.

37. Contractor Not To Deposit Materials In A Manner That may Cause Inconvenience to the Public

The contractor(s) shall not deposit materials on any site, which will cause inconvenience to the public. The Employer/Consultant may require the contractor to remove any materials, which are considered by him to be a danger or inconvenience to the public or cause them to be removed at the contractor's cost.

38. Payments

All bills shall be prepared by the contractor in the form of prescribed by the Employer/Consultant. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in appendix herein refer to. The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities of work done and must show deductions for all previous payments, retention money, etc.

The Consultant shall issue a certificate after due scrutiny of the contractor's bill stating the amount due to the contractor from the Employer and the contractor shall be entitled to payment thereof, within the period of honoring certificates named in these documents. In case of delay due to some reasons in the processing of such bills for payment, an adhoc advance of 75% of the billed amount may be paid on the request of the contractor for the smooth progress of the work.

The amount stated as in appendix, in an interim certificate shall be the total value of work properly executed and 75% of invoiced/assessed value of materials brought to site for payment incorporation into the work up to the date of the bill less the amount to be retained by the Employer as retention money of these conditions and less installments previously paid under these conditions, provided that such certificate shall only include the value of said material and goods as and from such time as they are reasonably, properly and not prematurely brought to or placed adjacent to the work and then only if adequate protected against wealth or other casualties.

The Employer will deduct retention money as described in clause 11 of these conditions. The refund of retention money will be made as specified in the said clause.

If the Employer had supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount to the contractor in accordance with the quantities consumed in the work.

All the interim payment shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, not shall, it continue, determine or affect in anyway the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or effect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for completion of the work or of the date of certificate of completion furnished by the Consultant and payment shall be made by the Employer within three months from date of receipt of the final bill duly verified & certified by the Consultant.

The Employer/Consultant reserves the right to withhold in part or full payment of bills in case of non-compliance/violation of any terms and conditions stipulated in the agreement. The contractor shall neither suspend the work nor claim for extension of time for non-payment/withholding for payment on this account and no interest is also payable on the payment withheld/due.

Final Payment

The final payment shall be accompanied by a certificate of completion from the Consultant. Payments of final bill shall be made after deduction of Retention Money as specified hereinbefore of the document, which sum shall be refunded after the completion of the defects Liability Period of one year after receiving the Employer/Consultants' certificate that the contractor has rectified all defects to the satisfaction of the Employer/Consultant. The acceptance of payment of the final bill by the contractor would indicate that he will have no further claim in respect of the work executed.

39. Variation/Deviation

The Price of all such addition/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract whenever or on engineering rate analysis based on prevalent fair price of labour, materials and other components as required. The tender rates shall hold good for any increase or decrease in the tendered quantities up to variation or 25%. For variation beyond 25%, the rate for the respective item may be reviewed on mutually agreed terms.

40. Substitution

Should the contractor desire to substitute any materials and workmanship, he/they must obtain the approval of the Employer/Consultant in writing for any such substitution well in advance. Materials designed for this specification indefinitely by such terms as "Equal" or "Other approved" etc. specific approval of the Employer/Consultant had to be obtained in writing prior to execution.

41. Preparation of Building Works for occupation and use on Completion

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

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

42. Clearing Site on Completion

On completion of the works the contractor shall clear away and remove from the site all constructional plant, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Employer/Consultant.

43. Defects after Completion.

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, shrinkage, settlements or other faults, which may appear within 12 months after completion of the work. In default the Employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and consequent thereto or incidental thereto shall be made good and

borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from the amount retained together with any expenses the Employer may have incurred in connection therewith.

44. Concealed Work

The contractor shall give due notice to the Employer/Consultant whenever any work is to be buried in the earth, concrete or in the bodies of walls or otherwise becoming inaccessible later on, in order that the work may be inspected and correct dimensions taken before such burials, in default whereof the same shall, at the opinion of the Employer/Consultant be either opened up for measurement at the contractor's expense or no payment may be made for such materials. Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked the notes of the Employer / Consultant shall be accepted as correct and binding of the contractor.

45. Escalation

The rate quoted should be firm throughout the tenure of the contract (including extension of time, granted) and will not be subject to any fluctuation due to increase in cost of materials, labour, sales tax, octrol, etc. Unless specifically provided in these documents.

The price variation clause being adopted by the RBI may be followed, if such a situation arises on a case-to-case basis.

Further in case of variation in the wages of labour due to statutory enactments like the revision of the Minimum Wages Act by more than 10%, the increase in actual labour cost due to implementation of the statutory provisions based on the number and category of labour actually borne on the Muster during the period under consideration may be also considered, if provided in the tender.

46. Idle Labour

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

47. Suspension

If the contractor except on account of any legal restraint upon the Employer preventing the continuance of the work in the opinion of the Employer shall neglect or fail to proceed with due diligence in the performance of his part of the contract or if he shall more than once make default, the Employer shall have the power to give notice in writing to the contractor requiring the work to be proceeded within a reasonable manner and with reasonable dispatch, such notice under this clause.

After such notice shall have been given, the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or materials to subsist from the date of such notice being given until the notice shall have been complied with. If the contractor fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the Employer may proceed as provided in this clause (Termination of Contract by Employer)

48. Termination of Contract by Employer

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter into a need or arrangement with his creditors, or if the official Assigned in insolvency, or the Receiver of the contractor in insolvency, shall repudiate the contract, or if a Receiver of the contractor's firm appointed by the court shall be unable, within fourteen days after notice to him requiring him to do so, to show to the reasonable satisfaction of the employer that he is able to carry out and fulfill the contract, and if so required by the

employer to give reasonable security therefore, or if the contractor shall suffer any payment under this contract to be attached by or on behalf of and of the creditors of the contractor, or shall assign, charge or encumber this contract or any payments due or which may become due to the contractor, there under, or shall neglect or fail to observe and perform all or any of the acts matters of things by this contract, to be observed and performed by the contractor within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the employer not exercise such due diligence and make such due progress as would enable the work to be completed within such due time agreed upon, and shall fail to proceed to the satisfaction of the employer after three clear days notice requiring the contractor so to do shall have been given to the contractor as hereinafter mentioned, or shall abandon the contract, then and in any of the said cases, the Bank may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the employer of the obligations and limitations of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determined and as if the works subsequently executed, by or on behalf of the contractor (without thereby creating any trust of the contractor) further the employer or his agent, or servants, may enter upon and take possession of the work and all plants, tolls, scaffolding, sheds, machinery, steam and other power, utensils and materials lying upon premises or the adjoining lands or roads and sell the same as his own property or may the employ the same by means of his own servants and workmen in carrying on and completion the works or by employing any other contractors or other persons or person to complete the works, and the contractor shall not in any way interrupt or do any act, matter of things to prevent or hinder such other contractors or other persons employed from completing and finishing or using the materials and plants for the works when the works shall be completed, or as soon thereafter as conveniently may be, the employer shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do within a period of 14 days after receipt by him the employer may sell the same by Public Auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by the employer in getting the works carried out by other contractors shall be adjusted against the amount payable to the contractor by way of selling his tools and plants or due on account of work carried out by the contractor prior to engaging other contractor or against the Security Deposit.

49. Arbitration

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the work or the execution or maintenance thereof of this contract or the rights touching or concerning the works or the execution of maintenance thereof of this contract or the construction remaining operation or effect thereof to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the Employer hereinafter mentioned be referred for adjudication to a sole Arbitrator to be appointed as hereinafter provided. For the purpose of appointing the sole Arbitrator referred to above, the Appointing Authority will send within thirty days of receipt by him of the written notice, aforesaid to the contractor, a panel of three names of persons who shall be presently unconnected with the organization for which the work is executed.

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

If the Employer fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with either party. The Employer shall on receipt of the named as aforesaid select any one of the

persons names and appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as the Sole Arbitrator within 30 days of receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons form the panel as the Sole Arbitrator and communicate his name to the Employer.

If the Arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another Sole Arbitrator shall be appointed as aforesaid. The work under the Contract shall, however, continue during the arbitration proceedings and no payment due or payable to the contractor shall be withheld on account of such proceedings.

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

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

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

In all cases, where the amount of claim in dispute is Rs.50, 000/- (Rupees fifty thousand) and above, the Arbitrator shall give reasons for the award.

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

The award of the Arbitrator shall be final and binding of both the parties subject to aforesaid provisions of the Arbitration Act 1992 or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause. The employer and the contractor hereby also agree that arbitration under clause shall be a condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be referred to arbitration.

50. Excepted Matters:

If the disputes or differences pertain to the under noted matters (called excepted matters), the decision in writing of the officer of Indian Bank designated in and signing the contract documents shall be final, conclusive and binding on the parties. No arbitration shall arise in such matters except either by mutual agreement or under the directions of a competent court.

- i) Instruction.
- ii) Transactions with local authorities
- iii) Proof of quality of materials.
- iv) Assigning or under letting of the contract.
- v) Certificate as to the cause of delay on the part of the contractor and justifying extension of time.
- vi) Rectification of defects pointed out during the defects liability period.
- vii) Notice to the contractor to the effect that he is not proceeding with due diligence.
- viii) Certificate that the contractor has abandoned the contract.
- ix) Notice of determination has contract by the Employer.

51. Security Arrangements

Proper arrangements shall be made to keep all records under lock and key.

It shall be ensured that the contractor provides for adequate fences, watch and ward and security of basic materials such as cement and steel etc. Movement of materials, stores and plant, especially of those in which the Bank has got a financial interest or those which influence progress of work, shall be strictly controlled. Checks shall be exercised at gate (entrance and exit shall be preferably through one gate only).

When the work is completed and handed to the use, the responsibility of proper security arrangements shall rest with the users.

52. Working Hours

Site Office working hours shall normally be fixed as may be prevailing in the locality. Normally no execution work of important structure nature shall be carried out on Sundays, Holidays and during nights. In exceptional circumstances, however, the work may be carried out with prior approval of the Site Engineer who shall depute supervising staff to be present on the occasion.

53. INSPECTION BY TECHNICAL EXAMINER

The proposed work covered under this tender is subject to inspection by the Chief Technical Examiner / Technical Examiner or by an officer of the Vigilance cell of the Authority on behalf of the Owner/ Employer/ Architects/Consultants. The contractor shall be required to extend all assistance and facilities for such inspections.

TECHNICAL SPECIFICATION OF INTERIOR WORKS

HARDWARE & METALS

The hardware throughout shall be of approved manufacture and supply, well made and equal in every respect to the deposited with the Consultants. The Contractor may be required to produce and provide samples from many different sources before the Consultants take decision and he should allow in his rates for doing so.

Fittings generally shall have satin chrome or anodized finishing unless otherwise specified and shall be suitable for their intended purpose as per Consultants approval.

Screws are to match the finish of the articles to be fixed, and to be round or flat-headed or counter sunk as required.

The Contractor should cover up and protect the brass and bronze surface with thick grease or to the suitable protective material, renew as necessary and subsequently clean off and clear away on completion.

Aluminum and stainless steel shall be of approved manufacture and suitable for its particular application. Generally the surface of aluminum shall have an anodized finish, and both shall comply with the samples approved by the consultants. All stainless steel sheets shall be 304 S.S. Japan or equivalent with gauges as specified but not less than 16GL.

All steel, brass bronze aluminium and stainless steel articles shall be subject to a reasonable test for strength, if so required by the Consultants at the Contractor's expense.

All brazing and welds are to be executed in a clean and smooth manner, rubbed down and left in the flattest and tidiest way, particularly where exposed.

Chromium plating shall be in accordance with BS 1224 Standard or as per approved specifications for normal outdoor conditions and shall be on a base material of copper or brass.

GLAZIER

All glass to be of approved manufacture, complying with IS 23548 1966 as per approved quality and sample to be of the selective qualities specified and free from bubbles, smoke, wanes, air holes and other defects.

Polished plate glass shall be "glazing glass" (G.G.) quality that for mirror shall be "silvering quality" (S.G.), conforming to IS: 3438-1965 or as per approved sample and quality.

The compound for glazing to metal is to be special non hardening compound manufactured for the purpose and of a brand and quality approved by the consultants.

While cutting glass, proper allowances to be made for expansion. Each square of glazing to be in one whole sheet. On completion of work, clean all glass inside and out, replace all cracked scratched and broken panes and leave in good condition.

PAINT AND POLISHES

All material required for the works shall be of specified and approved manufacturer delivered to the site in the manufacturer's containers with the seals etc, unbroken and clearly marked with the manufacturer's name or trade-mark a description of the contents and colour. All materials are to be stored on the site off the work.

Spray painting with approved machines will be permitted only if written approval has been obtained from the consultants prior to painting. No spraying will be permitted in the case of priming coats or where the soiling of adjacent surfaces is likely to occur. The nozzle and pressure to be so operated as to give even surface. The

paint used for spraying is to comply generally with the specification concerned and is to be specially prepared by the manufacturer for spraying. Thinning of ready mixed paint made for brushing will not be allowed.

Wood preservative shall be solignum or other equal and approved impregnating wood preservative and all concealed woodwork shall be treated with wood preservative. All brushes, tools, pots, kettles etc. used in carrying out the work shall be clean and free from foreign matter and are to be thoroughly cleaned out before being used on a different type or class of material.

All iron or steel surfaces shall be thoroughly scrapped and rubbed with wire brushes and shall be entirely free from rust, with scale etc. before applying the priming coat.

Surfaces of previously painted wood work which are to be painted are to be cleaned down with soap and water, detergent solution or approved solvent to remove dirt, grease, etc. whilst wet, the surfaces shall be flatted down with a suitable abrasive and than rinsed down and allowed to dry. Minor areas of defective paint shall be removed by scrapping back to a firm edge and the exposed surface touched in with primer as described and topped with putty. Where woodwork has been previously painted or polished and is to newly polished, scraping, burning off or rubbing down of the surface shall be satisfactorily done.

Surfaces of previously painted metal which is to be painted are to be cleaned down and flatted woodwork. Minor areas of defective paint and any rust and loose scale shall be removed completely by chipping, scraping and wire brushing back to the bare metal and touched up with primer, as described.

Where glued joinery and carpentry work is likely to come in contact with moisture, the glue shall be waterproof. The use of animal glues will not be permitted.

Timber is to be cut to the required sizes and lengths as soon as practicable after the works are began and stored under cover so that the air will circulate freely around it. Joinery is to be prepared immediately after the placing of the contract framed up (but not bounded) and stored until required for fixing in position, when it is to be bonded and wedged up. Any portion that wrap or develop shakes or other defects are to be replaced before wedging up. The whole work is to be formed and finished in a proper and workmanlike manner, in accordance with the detailed drawings, and fitted with all necessary metal ties, straps, belts, screws, etc. tuning bended joints are to be cross tongued with teak tongues and where over 1 1/2" thick double cross tongued. Joiner's work generally is to be finished with fine class prepared surfaces unless otherwise specified.

Templates, boxes and moulds shall be accurately set out and rigidly constructed so as to remain accurate during the time they are in use.

Grounds are to be cleaned, free from large knots, splayed required plugged and fixing to walls etc. at 150-centers.

Wood plugs are to be cut on the twist. Patent well plugs or plastic filling may be in lieu of wood plugs with the approval of the Architect.

Block board shall be of approved make. Shelve generally shall be constructed of plywood with edgings of 1/2" teak tongued on.

One of the following I.S. Specifications or such approved adhesives shall be used.

IS: 851-1957 - Synthetic Resin adhesive for construction work in wood.

IS: 849-1957 - cold setting case in glue for wood.

- | | | |
|----------------------|---|--|
| 1. Hardwood Seasoned | - | Means 1 st quality C.P. Teak weighting not less than 45 lbs per cft. kiln dried, moisture content less than 12% free from worm holes, loose or dead knots or other defects such as warping, splitting chemically treated with wood preservative of approved manufacturer. |
| 2. B.T.C | - | B.T.C means Busher Teak cut size seasoned kiln dried moisture content less than 1 1/2" weighting not less than 50 lbs per cubic foot. Free from worm holes, loose or dead knots or other defects such as warping, splitting. Chemically treated with wood preservative of approved manufacturer. |
| 3. Plywood | - | Plywood shall be closed grain weatherproof ply. It will be 'Phenol bonded' plywood shall be complying to IS S: 308-1960. |
| 4. Block Board | - | Block board to comply with IS: 1659-1979. |
| 5. Teak particle | - | Teak particle boards shall have phenol bond and will comply with IS: Board 3478-1966. |
| 6. Veneer | - | Veneer to have straight grains and will selected from matching group. Veneer to comply with IS: 1328-1970.'Anchor' Brand of Indian Plywood. |
| 7. Laminate | - | laminate should be 1.5mm thick from Decolam, Neolux or Formica, Green Lam.. |

ROLLING SHUTTER

Shall be from an approved manufacturer suitable for fixing in the position ordered, i.e.; outside, inside, on or below lintel or between jambs. Shutter upto 12 sqm. (1 30 sqft) in area shall be manually operated or push up type while bigger sizes shall be a reduction gear type mechanically operated by chain or handles.

These shall consist of a gauge sheet or as specified with 75 mm. (3") M.S. laths of best quality mild steel trips machine rolled and straightened with an effective ridge depth of 16 mm. (5/8") and shall out their entire length with end locks. These shall be mounted on specially designed pipe shaft.

The springs shall be of approved make coiled type. These shall be manufactured from tested high tensile spring steel wire or strip of adequate strength to balance the shutters in position. The spring, pipe, shaft etc. shall be supported on strong M.S. or bellow cast iron brackets.

Both the side guides and bottom rail shall be joint less and of single piece of pressed steel.

Top cover of shaft, spring etc. shall be of the same material as that of lath.

For rolling shutter with wicket-gate night latch shall be provided free of cost.

TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORKS

GENERAL:

Withstanding the definition of wiring in IEE regulation, or elsewhere, wiring shall so far this contract is

concerned, include all work items/accessories in the complete wiring circuit from tapping the point in the sub main or distribution board to the following:

The switch /ceiling rose or connector/socket outlet/bell push/ bookplate/ call bells, buzzers.

(i) The following shall be deemed to be included in the point wiring:

1. Circuit wiring from the relevant distribution board.
2. Switch and ceiling rose/connector
3. Wire as required up to lam holder in the case of wall brackets, bulk circles and all other fittings, fan regulators and looping inside switch boards.
4. Bushed PVC conduit of suitable size where cables pass through walls and ceiling below ceiling level to 1.5M above upper floor level.
5. Earth wire from 3 pin socket to the respective distribution board.
6. Continuous run of earth wire on complete lighting fan wiring to respective distribution board.
7. All wood or metal boards and boxes, sunk or surface type including those required for mounting fan regulators and switches (excluding those under distribution boards and main control switches)
8. Round blocks for housing connectors/ceiling rose.
9. All fixing accessories such as clips, nails, screws, or raw plugs, wooden plugs etc., as required.

(ii). SIZES OF WIRES:

All wires shall be PVC insulated single core copper or aluminum stranded conductor as specified and shall be 250/1100 V grade. The smallest conductors for lighting and circuits shall be 1.5 Sq.mm and 2.5 Sq.mm. aluminum or equivalent copper respectively.

Phase	Ph.	Ph.	Neutral	Earth
R	Y	B	N	
Colour-Red	Yellow	Blue	Black	Green.

(iii). FITTINGS WIRES:

The use of fittings wires shall be restricted to the internal wiring of light fittings. The sub circuit leads shall terminate in ceiling roses or connectors from which they will be carried into the fittings.

(iv). Connections to the switches, sockets etc., wherever possible shall be through crimped pin type plugs.

(v). FLEXIBLE CHORDS:

For sort connections to appliances fans and pendants shall be 250/440 V grade (3 or 4 core) with tinned copper wires, insulated, twisted and sheathed with strengthening chord. The colour of sheath shall be to Architect's approval.

9.2. WIRING IN CONDUITS:

1. CONDUITS

a) Rigid steel conduits shall be of heavy gauge welded black enameled of 16 SWG sheet up to 40mm dia and 14SWG sheet above 40mm dia. with threaded type accessories and when laid shall free from edges and burrs.

b) All rigid non-metallic conduits shall confirm to IS 2509/1973 & IS 9537 (part3)/1983 either threaded or plain type and shall be used with corresponding accessories.

2. SIZES:

Shall be selected in accordance with IS codes depending upon the size and number sizes to be drawn, the minimum dia. being 19mm/20mm.

3. CONDUITS JOINTS:

Conduit pipe shall be joined by means of screwed couplers and screwed accessories only. In long straight runs of conduit inspection type of couplers (for surface conduits) or running threads with couplers and jam nuts with bared threaded portion suitably protected by anticorrosive paint shall be provided. Threading shall in all cases be from 11mm to 27mm long sufficient long to accommodate pipes to full threaded portions of coupler or accessories. Cut ends of conduits pipes shall have no sharp edges nor any buffers left, to avoid damage to the insulations of conductors while pulling them through such pipes and all such ends shall be neatly protected by approved bushes of proper size, of P.V.C. or of well seasoned TW, painted or of porcelain, bakelite or rubber.

4. PVC CONDUIT CONNECTIONS:

PVC conduits shall be joined by means of screwed or plain couplers depending on whether the conduits are screwed or plain. Where there are long runs of straight conduit, inspection boxes shall be provided at inters approved by the Architect. The threads of pipe and sockets shall be free from grease and oil and shall be thoroughly cleaned before making the screwed/plain joints. Proper jointing materials as recommended by manufacturers shall be used for jointing of PVC pipes. Use PVC couplers and connectors for PVC pipe connections and terminations in boxes. All the joints shall be watertight. Junction boxes and running joints shall be provided at suitable places to allow for subsequent extensions if any, without undue dismantling of conduit system. As far as possible diagonal run of conduits shall be avoided. Junction between conduit and adaptable boxes, back outlet boxes, switch boxes and the like must be provided with entry spouts and smooth PVC bushes. Joints between conduits and iron clad distribution boards and control gear shall be effected by means of conduit couplers into each of which will be coupled smooth PVC bush from the inside of box or case. Conduit system shall be erect and straight as far as possible. Traps where water may accumulate from condensation are to be avoided and if unavoidable suitable provision for draining the water shall be made. All jointing methods shall be subject to the approval of Architects. Separate conduits shall be provided for the following system.

1. 15 Amps Power outlets
2. 5Amps outlets and lighting system
3. Fire alarm system/Telephone system
4. Equipment wiring

5. BENDS IN CONDUIT:

Wherever necessary, bends or diversions may be achieved by means of bands/or circular inspection boxes with adequate and suitable inlet and outlet screwed joints. In case of recessed system each junction box shall be provided with a properly occurred and flush with the finished wall surface, so that the conductors inside the conduits are easily accessible. No bends shall have reading less than 2 1/2 times the out side diameter of the conduit. Heat may be used to soften the PVC the conduit for bending. Caution should be exercised in using the PVC conduits in location where ambient temperature is 50 Celsius or above. Use of PVC conduit in places where ambient temperature is 60 Celsius or above is

prohibited. PVC conduits shall not be used in outdoor exposed system. G.I. pipes conduits shall be used for outdoor system.

6. FIXING OF CONDUITS:

Conduits and junction boxes shall be kept in position while the walls, slabs and floors are under renovation and proper holdfasts shall be provided. Conduits shall be so arranged as to facilitate easy drawing of wires through them. Adequate junction boxes of approved shape and size shall be provided. Where conduits cross expansion joints in the building, adequate devices shall be used to take care of any relative movement. All conduits shall be installed so as to avoid a steam and to water pipes. A conduit shall not come in contact with any wooden members unless otherwise specified. Conduits stubs in floors/slabs shall be kept as short as possible above the finished floor level in order to avoid any damage on them. After conduits junction boxes, outlet boxes, and switch boxes are installed in position, their outlets shall be properly plugged or covered so that water, mortar, insects or any other foreign matter does not enter into the conduit system. Exposed conduits shall be fixed by means of space bar saddle at intervals not more than 1000mm in normal and 500mm from both sides of fitting or accessories. The saddles shall be of 3mm X 19mm galvanized mild steel flat, properly treated primer and painted, securely fixed to support by means of nuts and bolts and brass machined screws as required. Conduits shall be laid in a neat and organized manner as directed and approved by the Architect. Conduit runs shall be planned so as not to conflict with any other service pipes lines/ducts.

Where exposed conduits are suspended from the structure they shall be clamped firmly and rigidly to the hangers of design to be approved by the Architect. Where hangers are to be anchored to reinforced concrete appropriate inserts and necessary devices for their fixing shall be left in position at the time of concreting. Making holes or openings in the concrete will generally not be allowed. In case of unavoidable prior permission of the Architect shall be obtained.

Conduits in chases shall be avoided. Where unavoidable conduits shall be fixed in chases by means of staples not more than 600mm apart and the chase filled with cement mortar 1:4 cutting of horizontal chases in walls is prohibited.

7. PROTECTION:

To minimize condensation or sweating inside the conduit pipes, all outlets of conduits system shall be adequately ventilated as directed and approved by Architect. All screwed and socketed connections shall be adequately made fully water tight by the use of proper jointing materials i.e. 'Tropolin' for PVC conduit and white lead for metal conduit.

8. OUTLETS:

All outlets for fittings, switches etc., shall be boxes of suitable metal of surface or flush mounting type. Wall thickness shall not be less than of 16g covered with a sheet 1/8" (3mm) thick perspex or 3mm thick decorative laminated hylam; as may be specified, in front giving minimum clear depth of 75mm. All MS boxes, irrespective of sizes, shall have a fully threaded stud welded inside, for earth termination.

9. CONDUCTORS:

All Conductors used in conduit wiring shall unless otherwise specified be stranded. No single core cable of nominal cross-sectional area greater than 16 sq.mm. shall be enclosed alone in a conduit and used for alternating current.

10. INSPECTION BOXES:

Suitable inspection boxes, with ventilating holes in the covers shall be provided in a conduit wiring, at spacing not more than 12 meters apart or two solid 90 degree bends or equal to permit periodical inspection and facilitating removal of wires if necessary.

11. ERECTION AND EARTHING OF CONDUIT:

The conduit of each circuit or section shall be completed before conductors are drawn in. The entire system of conduit after erection shall be tested for mechanical and electrical continuity throughout and permanently connected to earth confirming to the requirements specified under section 12 (below), Earthing by means of special approved type earthing clamps efficiently fastened to conduit pipe in a workman like manner for perfect continuity between each wire and conduit gas or water pipes are liable to mechanical damage they shall be adequately protected.

12. GUIDE WIRE

Suitable fish or pull wire shall be drawn in all conduits before they are embedded. Steel conduits, even if galvanized, run in under-floor screed shall be painted with a heavy coated of emulsified bitumen.

WIRING IN CONCEALED CONDUIT

1. Conduits buried in concrete in structure shall be put in position and securely fastened to the reinforcement and the system got approved by the Architect/Consultant before the concrete is poured. Proper care shall be taken to ensure that the conduits are neither dislocated nor choked at the time of pouring concrete. Suitable fish or pull wire shall be drawn in all conduits before they were embedded.

2. MAKING OF CHASE:

The Chase in the wall is neatly made and be of ample dimensions to permit the conduit to be fixed in the manner desired. In the case of building under renovation, chase shall be provided in the wall, ceiling, etc., at the time of renovation and shall be filled up neatly after erection of conduit and brought to the original finish of the wall, ceiling etc.

3. The conduit pipe shall be fixed by means of staples or saddles not more than 50cm apart. Fixing of standard bends or below shall be avoided as far practicable and all curves maintained by bending the conduit pipe itself with radius along enough to permit easy drawing in of conductors. All threaded joints of conduit shall be treated with approved preservative compound to secure protection against rust.

4. INSPECTION BOXES:

Suitable inspection boxes shall be provided as at 9.2 (Flush mounted).

5. TYPES OF ACCESSORIES TO BE USED:

All outlets such as switches, wall sockets, etc. may be either flush or of surface mounting type.

6. The outlets box shall be same as in Clause 9.2 ante and shall be mounted with the wall. The metal box shall be efficiently earthed with conduit by the stud vide 9.2 .

9.4. WIRING IN SURFACE CONDUITS:

Conduit pipes shall be fixed on the approved heavy gauge metal saddles, Properly secured to walls or ceilings through suitable teakwood plugs (or other approved varieties) with round or cheese circle screws for rust proof material, at intervals of not more than 50cm on straight runs, with saddles not more than 30cm on either side of couplers or bends or similar fittings, from such fittings. The conduits shall be run neatly parallel or at right angles to walls and painted in different colours to distinguish light, power and telephone lines. Inspection boxes shall be provided as at.

10. PVC SHEATHED WIRING

(Batten wiring)

1. PVC sheathed cables may be installed in exposed locations and for medium voltage installation.

2. FIXING IN WALLS AND CEILINGS:

All PVC cables on brick walls, stone or plastered walls and ceiling shall be run on well seasoned perfectly straight and well varnished (on all sides) teakwood or any approved hardwood battens of not less than 12mm (1/2") finished thickness, width to suit the totality of the cables laid on the batten. prior to the erection, these shall be fully painted with one coat of varnish or approved paint of colour to match with the surroundings. The battens shall be properly secured to the walls and ceilings by flat circle wood screws to raw plugs or Phil plugs. The flat circle screw shall be counter-sunk within the wooden battens and smoothed down with file.

Where wiring is to be carried out along the face of rolled steel joints, a batten of well seasoned teak wood of approved quality of adequate width duly varnished or painted shall first be laid on the same clipped to them as inconspicuously as possible. The wiring shall be then fixed to the batten in the ordinary way. Where wiring then passes be fixed to the batten in the ordinary way. Where wiring passes through structural steel work the holes shall be smoothed and be also suitably bushed to prevent abrasion of the cable. The battens shall be fully varnished or painted, as required.

3. LINK CLIPS:

Only tinned brass link clips shall be so arranged that a single clip shall not be hold more than two-twin core PVC sheathed cables up to 0.003 Sq.inch (3/0.036 or 1.5 sq.mm.) above which a single clip shall hold a single twin core cable. The clips shall be fixed on fully varnished wood battens with brass nail/pins and spaced at intervals of 10cm both in the case of horizontal and vertical runs. For wiring and runs of mains exposed to heat and rain, clip specially made for out door use from durable metal resistant to weather and atmospheric corrosion shall be used.

4. PASSING THROUGH WALLS/CEILINGS:

The method to be adopted shall be that laid down under sections 16(a) or(b) below and under definition of point wiring, 9.1(iv),ante. In the latter case, there shall be one conduit for twin cable or two runs of single-core cable, and the conduit shall be neatly arranged so that the cables enter them without bending.

5. BURIED CABLES:

PVC sheathed cables shall not be buried directly in plastering where so specified they may be taken in teak wood channeling of ample capacity or in cement chases or inside conduit pipes buried in the wall.

6. STRIPPING OF OUTER COVERING:

While Stripping and cutting of outer covering of cables, care shall be taken to ensure that the sharp edge of the cutting instrument does not touch PVC-sheathed insulation of conductors. The protective outer covering of the cables shall be stripped off near connecting terminals as far as practicable. Car shall be taken to avoid hammering or link clips with any metal instruments, after the cables are laid. Where the junction boxes are provided, they shall be made moisture proof with approved plastic compound. PVC-sheathed wiring shall be painted with a synthetic enamel pain of quick drying type.

11. ARMoured AND UNARMoured PVC CABLE ON SURFACE :

(a) This system of wiring is suitable for providing sub-mains for low/medium voltage installation. All such cables used shall conform to the relevant I.S.S.

(b) FIXING ON WALL/CEILING :

PVC insulated, steel tape or wire armored and PVC-sheathed cable on walls, ceiling etc., shall be run on proper wooden/MS cleats with GI saddles placed at such distance apart as to neatly and adequately support the cable all along the run. The wooden cleats shall be secured on the Wall/ceiling by flat circle screws to raw/Phil plugs.

(c) PASSING THROUGH WALL:

A teakwood box or extending through the whole thickness of the wall shall be buried in the wall and the cable shall be buried in the wall and the cable shall be carried so as to allow wall and the cable shall be carried so as to allow 1/2" clear space on the three sides of the cable or the cable shall be carried in an approved bush of well seasoned teakwood duly painted, or other approved material. The cable shall in no case be buried directly in masonry or plaster.

(d) LAYING:

The cables shall be uncoiled from the drum and laid in straight length so as to avoid sharps on the conductor. The cables should be laid along wall/ceiling in the best workmanlike manner, so as to give a neat appearance. Excessively sharp bends to the cable shall be avoided.

(e) STRIPPING OF OUTER COVERING:

While cutting and stripping the outer covering of the cables, care shall be taken to see that the sharp edge of cutting instrument does not damage the PVC insulation of the conductors. The insulation shall be stripped off near the connection terminals as far as possible taking care again to see that the conductor is not damaged.

(f) END TERMINATION:

The connecting terminals of the armoured and Unarmoured cable shall be terminated on the iron clad main switch/ distribution board etc., by using proper size brass/alloy supporting glands. In case of armoured cables, the armoured cables shall be supported into the gland and connected to the earth as per conventional practice. Terminations at both ends shall be made with cable lugs.

12. EARTHING

a) Except for equipment provided with double insulation all non-current carrying metal parts of electrical installations are to be earthed properly. All metal conduits, cable sheaths, switchgear, distribution fuse boards, etc., shall be bonded together and connected to an efficient earth electrode.

Medium Voltage energy consuming plant and equipment shall have two separate and distinct connections to the earth.

In the case of MV/LT panels, 2 nos. of earth bus bars of copper or GI of suitable section shall be run the back side of the panel and earth bus bars and the individual switches shall be interconnected by means of copper or GI wire of suitable gauge as specified.

b) EARTHING CONDUCTOR:

Earthing conductor shall be of higher conductivity copper or GI or any other suitable approved material to give equivalent conductivity and shall not less than half the largest current carrying conductor or 14SWG (7/00.029) but subject to an upper limit of 65 sq.mm. For equipment exceeding 750 KVA the size shall be as per IS.1886-1961.

c) INSTALLATION:

The buried earthing leads will be protected from mechanical injury by 1/2" (12mm) GI pipe recessed in wall and floor where considered necessary and carried up to the earth electrode. It shall be fixed over its entire length clamps, saddles, staples, etc. The earthing lead shall be securely bolted and soldered to the electrode with bolts and washer of the base metal. The earthing lead shall be securely connected at the other end to the main board and all its mountings and looped to all other iron clad switches and distribution boards.

d) ELECTRODE:

The construction of earth electrode shall be in accordance with relevant IS code. The electrode shall be

surrounded by alternate layers of charcoal or coke and salt. Watering arrangement with 1/2" GI pipe and funnel shall be provided, the latter being housed in chamber of inner size 30cm X 30cm. The resistance of earth electrode shall not exceed 1 Ohms; that of each continuity path from any point with electrode shall not exceed 1ohm and that of earthing connection 0.1 Ohm.

13. UNDERGROUND CABLES

a) HIGH MEDIUM/LOW TENSION:

Cables should be double tape/wire armored over lead covering and paper insulated as specified in the schedule of work. All joints of cables should be in joint boxes and filling in of the compound shall be done as per IS specifications using best quality of materials. In case of the PVC insulated armored cables joining will be done with approved quick setting epoxy compound with suitable jointing kit. The jointing work should be carried out by a competent authorized cable joiner.

b) TRENCH:

All underground cables shall be laid in suitable trenches which shall not be less than 45cm wide and 75cm below ground level in the case M.V. and L.T. and 1.2M below ground level in the case of H.T. Wherever necessary suitable propping and shoring shall be done to avoid caving in of the adjoining walls. Where the cables cross other services such as water/sewer lines or drains through walls into buildings, adequate protection should be made to prevent accidental exposure and/or damage to the cables.

c) SPACING BETWEEN CABLES:

Where more than one cable is laid in the same trench the actual space between the cables should be normally be 25cm apart leaving a clear distance of 15cm from the cable and the trench walls.

d) LAYING OF CABLES:

Before the cables are laid, a 75mm layer of sand base is to be provided for cushioning. The cables after being uncoiled and laid into a trench from the rollers should be drawn in straight length. After the cable is laid a 9" wide duct is to be formed with two well burnt brick laid on the edge one on either side and bridged by a well burnt brick laid flat on the top supporting bricks on edge with sand filled in around the cable. The trench is then filled with excavated earth, laid in layers, water and consolidated the surplus being disposed off. Cable markers with 3mm thick plates of suitable size, with 40mm X 40mm X 6mm supporting vertical MS angle iron welded to plate duly painted two coats against corrosion, or with 2" thick RCC slab of suitable size, making done with details cables and depths at which laid, duly painted on them, shall be provided at ground level after being suitably embedded in cement concrete (1:3:6) blocks of 20cm X 20cm X 20cm and spaced at distances of about 30 mts. from concrete to center and at every change in direction.

When more than one cable is to be laid, the width of the trench will be suitably increased and cables laid side by side conforming to specifications as above. In such case there shall be a separate brick duct for every cable. In case the cables cannot be laid side by side at one level they may be laid in tier formation in same trench. In this case after the first 7.5cm of sand cushioning, the first tier of cable is laid and sand filled in the trench for full width to form a bed of 23cm above this tier. After this second cable is laid and the process repeated the top most tier being at least 45mm below the ground level. The top cable shall be suitably covered with bricks as detailed for the single tier above. When lying with cables, care should be taken to see that the paper insulated cables are bent straightened slowly, sharp radius being avoided. The minimum safe bending radius for single core cable is 20 dia.mts and for multi core cables 10 dia.mts. and for armoured cable 12 dia.mts. the dia.mt being the overall diameter of the cable. Where the cables are required to cross the roads water/sewer lines etc., they should normally be taken through sleeve pipes at least 10cm in diameter which may either of stoneware, steel or spun reinforced concrete. For more than one cable the diameter should not be less than 15cm. Steel pipe shall be used where it is not possible to obtain sufficient depth to withstand impact from traffic.

e) Rate for cables shall include costs for all operations described above unless otherwise separately provided for elsewhere.

f) CABLE INSIDE BUILDING:

Cable laid inside the building should be properly protected and be carried either in ducts with suitable covers of slabs or chequered plates or fixed to walls by clamps, brackets or cable trays.

g) TESTING OF CABLES:

High voltage tests should be undertaken to ensure that no damage has occurred during the laying of operation and that the joints are in order. Cable of 1.1 KV suitable for low and medium voltage should be withstanding for 15 minutes, 3,000 volts Direct Current applied between the conductor and sheath. In the absence of high pressure testing equipment it is sufficient to test for 1 minute with 1000 volts. If the test results are to be found not satisfactory the Contractors shall arrange for having this set right at their cost, including removal of rejected materials, relaying etc.

14. RECEPTIONS AND DISTRIBUTION OF MAIN SUPPLY

14. 1. CONTROL AT POINT OF COMMENCEMENT OF SUPPLY:

14.1.1. There shall be a circuit breaker or a linked switch on each live conductor of the supply of mains at the point of entry. The wiring through the installation shall be such that there is no breakage in the neutral wire in the form of a switch or fuse unit. The neutral shall also be distinctly marked as provided in the Indian Electricity Rules 1956.

14.1.2. The main switches gear shall be easily accessible and shall be situated as near as practicable to the termination of service line.

14.1.3. On the main switch gear, where the conductors include an earthed conductor of two wire system or an earthed conductor of two wire system or an earthed neutral conductor of a multi-wire system or a conductor which is to be connected there to an indication of a permanent nature shall be provided to identify the earthed neutral conductor in accordance with the Indian Electricity Rules 1956.

14.2. Main Switches and Switch Boards: All main switches shall be either be iron/metal clad of enclosed pattern or of any insulated enclosed pattern as specified in the schedule of quantities and shall be fixed at close proximity to the point entry of supply.

14.2.1. LOCATION:

a) Open type switch boards shall placed only in dry situations and in well ventilated rooms and they shall not be placed in the vicinity of storage batteries and exposed to chemical fumes.

b) In a damp situation, or where inflammable or explosive dust vapour or gas is to likely to be present the switch boards shall be totally enclosed or made flame proof as may be necessary in the particular circumstances.

c) A switch board shall be installed so that its bottom is 1.25M (4ft) above a floor, unless the front of the switch board is located in a position to which only located only by authorized persons have access.

d) Switch boards shall not be erected above gas stoves or sinks or within 2.5M (8ft) of any washing unit in the washing rooms of laundries, or in bathrooms, lavatories, or kitchen or toilets.

e) Switch boards if unavoidably fixed in places likely to be exposed to weather, water or abnormally moist

atmosphere, outer casing shall be provided with glands or bushings or adapters to receive screwed conduits according to the manner in which cables are run.

14.2.2. MOUNTING:

Iron/metal clad switch gear shall be preferably be mounted on any of the following boards:

a) HINGED TYPE METAL BOARDS:

For small switchboards for mounting iron/metal clad switch/gear metal board shall be used. Metal board shall consist of a box made of metal sheet of less than of 16g. Thickness and shall be provided with a hinged cover to enable the board to be swung open for the examination of the wiring at the back. The joints shall be welded. The boards shall be securely fixed to the wall by means of rag bolts and shall be provided with locking arrangements and earthing stud. All wires passing through the metal board shall be properly bused. Alternatively, metals boards may be made of suitable size or channel iron frame work suitably mounted on front with 3mm (1/8") thick MS plates and on back with 1.588mm (1/6") MS sheet. In the case of PVC sheathed system of wiring, the top and bottom members may be replaced by 2.54mm (1") teakwood batten. Except for the above change all other details shall be applicable for the alternative also. Besides, the front sheet shall be provided with suitable hinges.

There shall be a clear distance of 3.175cm (1' 1/4") between the front sheet shall be provided with suitable hinges.

A teakwood boards of thickness not less than 6mm (1/4") will be provided at the back, if so specified.

b) FIXED-TYPE METAL BOARDS:

These shall consist of angle or channel iron frame fixed on the wall or on the floor. There shall be clear distance of 1M in front of the switchboard. A working distance of 1M behind the switchboard is preferable. If there is any attachment of bare connections at the back of the switchboard, Rule 51 (1) c of Indian Electricity Rules, 1956 shall apply. The detailed dimensions and design of metal boards and angle iron frame work for switch gears, including the position of the various mountings, which shall be symmetrically and neatly arranged for arriving at the overall dimensions shall be prepared and submitted before hand and shall have been prior approval of the Architects.

14.2.3. Where so specified in the schedule of quantities or elsewhere switch boards shall be recessed into the wall with front fitted with hinged panel of 16G M.S. Sheet or 3mm thick decorative laminated Hylam Sheet in M.S. angle iron frame with locking arrangement, the outer surface of the doors being flush with the walls. Ample room shall be provided at the back for connection and at the front between the switchgear mountings and the door. Steel work shall be painted one coat with synthetic enamel paint of approved make and colour over an anticorrosive primer.

14.2.4. ARRANGEMENT OF APPARATUS/MOUNTINGS:

a) Equipment which is on the front of a switch Baird shall be arranged that an inadvertent personal contact with live parts is unlikely during tier manipulation of switches, changing of fuses or like operations.

b) No apparatus shall be project beyond any edge of the panel. No fuse body shall be mounted within 2.5cm(1") of any edge of the panel and no holes other than the holes by means of which the panel is fixed shall be drilled closer than 1.3cm (1/2") from any edge of the panel.

c) Various live parts, unless they are effectively screened by substantial barrier of non-hydroscopic non-inflammable insulating materials shall so spaced that an arc cannot be develop and maintained between such parts and earth.

d) The arrangement of the apparatus shall be such that they shall be readily accessible and their

connections to all instruments and apparatus shall be easily traceable.

e) In every case in which switches and fuses are fitted on the same pole, the fuses shall be so arranged that they cannot be live when their respective switches are in 'off' position.

f) No fuses other than fuses in the instrument circuits shall be fixed on the back of or behind a switch board panel or frame.

14.2.5. MARKING OF APPARATUS

a) When a board is connected to voltage higher than 250v all the terminals or leads of the apparatus mounted on it shall be marked in the following colours to indicate the different poles or phases to which the apparatus or its different terminals may have been connected.

Three Phases	-	Red, Blue and Yellow
1 Neutral	-	Black

b) Where four wire three phase wiring is done, the neutral shall preferably be in one colour and each of the other three wires in another colour.

c) Where a board has more than one switch, each switch shall be marked to indicate which section of the installation it controls. The main switch shall be marked as such and when there is more than one main switch in the building, each switch shall be marked to indicate which section of the installation it controls.

d) All marking required under this clause shall be clear and permanent

14.3. MAIN AND BRANCH DISTRIBUTION BOARDS:

14.3.1. Unless otherwise specified main and distribution fuse boards shall be iron clad/metal card type or any type so described in these specifications, subject to approval of the Architects.

14.3.2. Main distribution boards shall be provided with a switch or any circuit breaker on each pole of each circuit a fuse or a phase or a live conductor and a link on neutral or earth conductor of each circuit. The switches shall always be linked.

14.3.3. Branch distribution boards shall be provided with a fuse or a circuit breaker on the live conductor of each circuit an earthed neutral conductor shall be connected to a common link and capable of being disconnected individually for testing purposes. A spare circuit of the same capacity shall be provided on each branch distribution board. Lights and fans may be wired on a common circuit. As regards power sub-circuits the outlets shall be provided according to the load design of these circuits, but in no case there shall be more than two outlets on each circuit. Where there are special requirements like air-conditioning such outlets should be wired on separate circuits with a control such IC switch/miniature circuit breaker.

14.4. CIRCUIT LIMITATIONS:

Sub-circuits shall not have more than a total of ten points of lights, fan and socket outlets or a load of 800 watts, whichever is less. If a separate fan circuit is adopted the number of fans in a circuit shall not be more than ten.

14.5. INSTALLATION OF DISTRIBUTION BOARDS:

a) The distribution boards shall be located as near as possible to the center of the load they are intended to control.

- b) These switches (as per clause 14.2) shall be fixed on a suitable stanchion or wall and shall be accessible for replacement of fuses.
- c) These shall be of either iron/metal clad type or all insulated type. But if exposed to weather or damp situations they shall be of the waterproof type and if installed where they are exposed to explosives, dust, vapour or gas, they shall be of the flame proof type.
- d) Where two or more distribution fuse, boards feeding low pressure circuits are fed from supply at medium voltage these distribution boards shall be :

- 1) Fixed not less than 2M (6ft) apart or
 - 2) Arranged so that two cannot be opened at the same time viz. they are interlocked and the metal case is marked "Danger-440 Volts" or
 - 3) Installed in a room or enclosure accessible to only authorized persons.
- e) All distribution boards shall be marked "Lighting" or "power" as the case maybe and also marked with pressure and number of phases of supply. Each shall be provided with circuit list giving details of circuit which it controls and the current rating of the circuit and size of the fuse element.

14.6. WIRING OF DISTRIBUTION BOARDS:

- a) In wiring a branch distribution board, the total load or the consuming devices shall be divided as far as possible evenly between the numbers of ways the board leaving the spare circuit for future extension.
- b) All connections between pieces of apparatus or between apparatus and terminals on board shall be neatly arranged in a definite sequence following the arrangement on the apparatus mounted thereon, avoiding unnecessary crossing.
- c) Cables shall be connected to terminals only by soldered lugs/crimped lugs unless the terminals are of such form that they can be securely clamped without cutting cable strands.
- d) All bare conductors shall be rigidly fixed in a such manner that a clearance of at least 2.5cm(1") is maintained between the conductors and any terminal other than the insulating material.
- e) In a hinged board, the incoming and outgoing cables shall be neatly bunched and shall be fixed in such a way that the door shall be capable of swinging through an angle of not less than 90 degrees.
- f) if required in the schedule of quantities, pilot lamp shall be fixed and connected through an independent single pole switch and fuse to the bus bars of the board.
- g) All main and branch distribution boards shall be provided with earth bus bars as described in 12 (1) ante.

15. PASSING THROUGH WALLS/CEILINGS:

When the conductors pass through walls/ceilings, any one of the following methods shall be employed. Care shall be taken to see that wires pass freely through protective pipe or box and that wire pass through in a straight line without any twist or cross in wires, on either end of such holes.

- a) A teakwood box extending through the whole thickness of the wall shall be buried in the wall and casings or conductors shall be carried so as to allow 1.3cm(1/2") air space on three sides of the casing or conductor.
- b) The conductor shall be carried in an approved heavy gauge solid drawn or lap welded conduit or in 2m

thick PVC pipe of such size that it permits easy drawing in. The ends of conduits shall be neatly bushed with PVC, wood, or other approved materials. Where a wall tube passes outside a building exposed to weather the outer end shall be bell mouthed and turned downwards and properly bushed on open end.

c) Where conductors pass from floor to another through ceiling, they shall be protected in the manner specified in (b) above, from 2.5cm below the ceiling level and up to a height of 1.5M above floor level. (Without any extra charges).

16. FIXING TO WALLS AND CEILINGS:

a) Plugging of walls or ceiling shall be done efficiently and neatly, using approved types of asbestos or fiber fixing plugs with the right sizes and types of tool in workman like manner. Where this cannot be done, wooden plugs as described below can be used with special permission of the Architects.

b) Plug for ordinary walls or ceilings shall be well seasoned teak or other approved hardwood not less than 5cm (2") long by 2.5cm (1") square on the inner end and 2cm (3/4") square on outer end. They shall be cemented into walls within 6mm (1/4") of the surface with plaster or lime punning. Where wiring to irregular coursing or other reasons the plugging of walls or ceiling with wood plugs present difficulties, the wood encasing, wooden batten, metal conductor or cleat (as case may be) shall be attached to the wall or ceiling in a suitable manner to be approved by the Architects.

In the case of new buildings, teakwood plugs shall be fixed in the walls, before first coat of white washing is given.

17. BRANCH SWITCHES:

Where the supply is derived from a three wire or four wire source and the distribution is done on the two wire system all branch switches shall be placed in the outer or live conductor of the circuit and no single pole switch or fuse shall be inserted in the middle wire, earthed or earthed neutral conductor of the circuit. Single pole switches carrying not more than 15 amperes may be of the tumbler type or as specified.

18. FITTINGS AND ACCESSORIES:

All materials used in the construction of fittings shall be of such quality, design and construction that will provide adequate protection in normal use, against mechanical and electrical failure and exposure, to the risk of injury or electric shock and shall withstand the effects of exposure to atmosphere.

19. ATTACHMENT OF FITTINGS AND ACCESSORIES

19.1. In other than conduit wiring, all ceiling roses, sockets, outlets, switches, regulators, brackets, pendants, and accessories attached to the wall or ceiling shall be mounted on substantial blocks of well seasoned teakwood, or hard wood of approved quality twice varnished both inside and outside including backside after all fixing holes are made in them. Blocks shall be used for attaching fittings and accessories to their blocks.

19.2. Groups of accessories and regulators shall be mounted on well seasoned and properly secured teakwood boards of suitable sizes to accommodate that required number of fittings. The board shall be well varnished with pure shellac on all sides, both inside and outside and the cover shall be 3mm thick decorative laminated Hylam of approved make as may be specified. The board shall be divided into sections, one for the switches which shall be flush mounted and other for the regulators, fixed with suitable washers and round circle iron screws. In the case of surface type wiring, switches may be surface mounted or flush mounted as specified on double teakwood boxes with hinge cover, or covered with 3mm thick laminates hylam sheet, as specified.

19.3. PROTECTION OF CONDUIT AGAINST RUST:

The outer surfaces of the conduit surfaces of the conduit pipes including all bends, unions, tees, junction boxes, etc., forming part of the conduit system shall be adequately protected against rust, particularly

when such system is exposed to weather. In all cases no bare threaded portion of conduit pipe shall be allowed unless such bare threaded is treated with anticorrosive preservative or covered with approved plastic compound.

19.4. PROTECTION AGAINST DAMPNES:

In order to minimize the condensation or sweating inside the tube, all outlets of the conduit system shall be properly drained and ventilated, but in such manner as to prevent the entry of insects as far as possible.

19.5. BENDS IN CONDUITS:

All necessary bends in the system including diversion shall be done by bending pipes or by inserting suitable solid or inspection type normal bends or similar fittings, or fixing M.S. inspection boxes which ever more suitable. Inspection conduit fittings shall be avoided as far as possible on conduit system exposed to weather. Wherever necessary, solid type fittings shall be used. Radius of such bends in conduit pipes shall not be less than 7.5 cm. No length of conduit shall have more than two equivalent 90 degrees bends from outlets to outlets the bends at the outlets not being counted.

APPROVED MAKE OF MATERIALS FOR INTERIOR WORKS

NOTE:

- (i) All materials shall be of the first quality.
- (ii) Wherever contract proposes to use equivalent makes (ie. other than specified).the same shall be done only after prior approval of the Employer/Architect. any additional expenditure and times due to this shall be solely on contractor's account and no claims whatsoever shall not be entertained.
- (iii) Read "or equivalent" at the end of the list of approved manufactured/sub contractor/brand for

every material.

SL.No.	MATERIAL	APPROVED MANUFACTURER/ BRAND
1.	Commercial ply wood / MR	Century-Saink / Uniply-Ecomate / Tips ply Trojen-Troy
	BWP	Century-clubtry / Greenply-optima / Uniply-marine / Tips marine
	BWR	Century-maxima / Greenply-gold / Uniply-gold / Tips- BWR
2.	Lamination	Green lam / Sunmica / Merino / RoyalTouch / Violam / Vir
	Decorative veneer	Green naturemax / century / Archid / slicon / Euro veneer
	MDF	Green / Vir / Durotuff (mangalam timber)
3.	Gypsum board	Indian Gypsum Ltd / Lafarge.
4.	Paints	I.C./ Berger paints/ Asain / Nerolac paints
5.	Screws	GKW.
6.	Hardware	Shalimar/Cier/Vision/Efficient/Earl Bihari.
7.	Adhesive	Fevicol / Vamicol.
8.	Locks	Godrej / Efficient
9.	Wood preservative	Bison of British paints, pest control of india, wudgard of castrol.
10.	Foams in Chairs	As per standard design, Om Engineering, Eurotech, Featherlite, Anjali.

LIST OF MAKE OF COMPONENTS FOR ELECTRICAL WORKS

1. Switch Fuse Units - L&T
2. MCCB (Upto 250A) - L&T
3. MCCB (above 250A) - L&T / Legrand / Hager / Siemens / ABB / Schneider
4. Change Over Switches - L&T / HPL / Standard

- | | |
|---------------------------------|--|
| 5. UG Cables | - RR Kabel / CCI / Finolex / Polycab / Havells |
| 6. 6A Switch / Socket (modular) | - MK- Wrapround / Anchor - Roma / Wipro- Nova / ABB / Siemens / Legrand - Myline |
| 7. Wiring and Telephone Cables | - Finolex / Polycab / RR Kabel (FRLS grade) |
| 8. MCB DB, MCB | - L&T / Legrand / ABB / Schneider / Siemens |
| 9. PVC pipes | - Aeroplast / Avonplast / Bajajplast / Finolex |
| 10. Capacitor | - L&T / Siemens / Epcos / Electronica / Baluk / Asian |
| 11. Telephone Cables | - Delton / Finolex / RRKabel |
| 12. Data Cable | - Systemax / D-link |
| 13. Light Fittings | - Wipro / Philips / Thorn / Elenserve |
| 14. Music system cable | - Finolex / RRKabel |
| 15. Speaker | - Bosch |

PREAMBLE - SCHEDULE OF RATES

1. The schedule of rate should be read in connection with all the other sections of the tenderer.
2. The quantities shown against the items of work are only approximate and may vary to any extent. No extra whatsoever shall be entertained.
3. The rates inserted in the bills of quantities are to be for the full inclusive of value of the work described under the several items, including all costs and expenses which may be required in

and for the construction and full protection of the work described, together with all risks, liabilities and obligations set forth or implied in the documents on which the tender is based. The quoted rates shall be for all heights, lifts and leads unless otherwise mentioned specifically in the description of item.

4. General direction and description of work and materials given elsewhere in the contractor documents are not necessarily repeated in the Bill(s) of quantities. Reference to be made to the other documents for the full information/details.
5. The contractor shall be deemed to have visited the site before quoting for the tender and to have examined for himself the conditions under which the work will be carried out including local conditions under which the work will be carried out including local conditions affecting labour and to have studied the items of the bills of quantities, the drawings and specification, relating to them and to have satisfied himself that the rates quoted by him provide for all minor accessories and contingent works or services as necessary for the works described even though there are not specifically defined.
6. Tenderer is advised to read items of works carefully and quote the rates accordingly. However, if he quotes different rates for the same items) of work under different schedules of items, the lowest rates quoted shall be made applicable to all the Bills of quantities and the contract sum corrected accordingly.
7. Where an item of work not mentioned in a particular bill of quantities, is required to be executed and where the rate for such an item of work is quoted under a different bill of quantities forming a part of this contract, then the contractor being called upon shall execute the work and shall be paid at the rate so quoted. Nothing extra over shall be payable on this account.
8. The drawing(s) attached with this tender document are for the purpose of tender only, giving the tenderer a general idea of the nature and the extent of works to be executed.
9. The rates quoted by the tenderer shall be deemed to be for the execution of the works in accordance with the "Construction Drawings" (to be supplied to the contractor at the "Design Aspect" of these drawings).
10. The rates quoted by the tenderer shall include all labour, tools and plants, materials inclusive of all, transport, loading, unloading charges, all levies, all taxes, excise duties, etc. at the time of quoting their rates. The quoted rates shall remain firm throughout the contract period. No escalation on prices of labour and materials shall be entertained.

PREAMBLE - SCHEDULE OF QUANTITIES

All items of work contracted for shall be executed strictly in accordance with the description of the item in the Schedule of Quantities, relevant drawings and specifications read in conjunction with the appropriate Indian Standard specifications and conditions of the contract and established Engineering practices.

The rate for each item of work included in the schedule of quantities shall unless expressly stated otherwise include cost of:-

- All materials, fixing materials, accessories sequence of operations, appliances, tools, plant equipment, transport labour and incidentals required and completion of the work called for in the item and as per specifications and drawings completely
- Wastage on materials and labour
- Loading transporting, unloading, handling as necessary, hoisting to all levels, and setting, fitting and fixing in position, protecting, disposal of debris as directed and all other labour necessary and to fully complete the job in accordance with contract documents, good practice and recognized principles of trade laid down in codes of practice.
- Liabilities, obligations and risks arising out of conditions of contract.

All requirements of specifications, whether such requirements are mentioned in the item or not shall be provided for the specifications and drawings where available are to be read as complimentary to any part of the schedule of quantities and any work called for in one shall be taken as required for all similar items.

In the event of conflict between Schedule of Quantities and other documents including the specifications the most stringent among them shall apply and the interpretations of the consultants/owner shall be final and binding.

The Contractor shall be paid for the actual quantity of work executed by him in accordance with the drawings at the accepted rates.

No alterations whatsoever is to be made either to the description of items in the Schedule of quantities or specifications unless such alterations, is clarified in writing by the consultant/owner. Any such alterations, notes or additions shall unless clarified in writing be disregarded when tender documents are considered. Any observation on BOQ should be made in the letter accompanying technical bid for proper consideration and on disfiguring or overwriting in the documents is permitted.

In event of an error occurring in the amount column of the schedule, as a result of wrong extension of unit rate and quantity, the unit rate quoted by the Tenderer shall be regarded as firm and the extensions shall be amended on the basis of rates.

All errors in totaling in the amount column and in carrying forward totals shall be corrected.

Unless otherwise stated, all measurements shall be taken in accordance with Indian standard for building of Measurements IS 1200 latest revision effective on the date of measurement for interior items as applicable. Any errors in quantity of items from the contract schedule shall not vitiate this contract but shall be corrected and deemed to be a variation by the Architect/Consultant/Owner.

DRAWINGS AND DATA

Within two weeks of placement of order/letter of intent contractor shall furnish the following data in triplicate for approval by Architect/Consultant/Owner.

General arrangement drawing of the equipment on orders showing plan, elevations, and sectional views,

mounting details.

Bill of materials.

Descriptive catalogues, characteristic curves, duty point efficiency factor and technical particulars of all the various equipments offered.

SPARE PARTS AND MAINTENANCE FOR MATERIALS SUPPLIED

Tenderer shall offer along with the bid, duly recommended by manufacturer set of spare parts required for a period of one year's continuous operation. Itemized unit prices with exact quantities recommended for these spares shall be separately indicated for consideration of the Owner/Consultant.

DOCUMENTS MUTUALLY COMPLIMENTARY

The several documents forming the contract are to be read as mutually complementary to each other and in case of ambiguities/ discrepancies, the same shall be explained and clarified by the Consultant/Owner to the Contractor in what manner the work is expected to be carried out to meet the end requirements.

INSTRUCTIONS DURING EXECUTION

On the advice of the Owner, the consultants may issue further drawings and written instructions, details, directions and explanations collectively referred to as "Site instruction" in regard to:

- Variations for modification of the design, quality or quantity of works as addition or omission or substitution of any work therein.
- Any discrepancies in the drawings or between the schedule of quantities and/or specifications and/or drawings.
- Removal from the site any material brought by the contractor and substitution of any other materials therefore.
- The dismissal or removal from work of any person employed thereupon.
- Removal/re-examination of any works executed in case of doubt of any nature.
- Opening up for inspection of any work covered up without proper tests by the Architect/Consultant.

Oversight on the part of the Architect/Consultant/his Deputy to disapprove any defective work or material shall not prejudice the Owner/Consultant, thereafter to disapprove such work or materials and to order pulling down, replacement, removal breaking up or reconstruction.

The Contractor shall make his own arrangement for the engagement of all labour and shall be responsible for regulating their service conditions, work conditions in conformity with all Acts, Regulations, Rules or order of competent authority under relevant laws in force during the pendency of the contract.

Contractor shall indemnify the Owner from all claims relating to the workers/ staff/ sub-contractors, Salaries, Wages, Overtime, Leave, Provident Fund, Medical facilities, gratuity, Bonus or any other claim as applicable and stipulated in any statutory provisions, rules or order of competent authority.

All materials so far as procurable shall be of the reputed make in the category of manufacture and bear the stamp of quality of the Bureau Standards wherever applicable. The contractor shall furnish documentary proof, test certificates and guarantees as relevant to such materials from manufacturers, which shall match with the date of procurement.

Signature of the Tenderer/s

With the Seal of the Company

Date:

Place: