

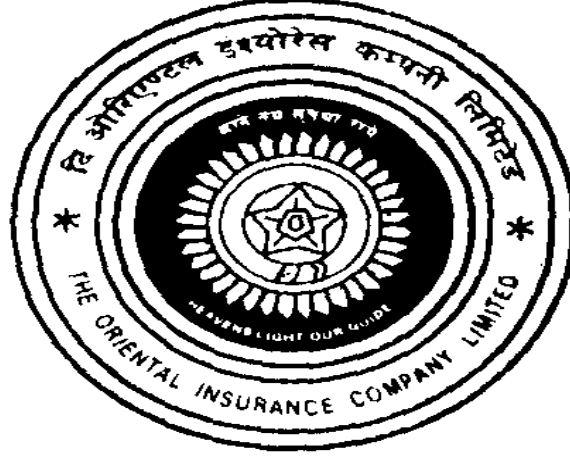
THE ORIENTAL INSURANCE COMPANY LTD.,

Regional Office, IV Floor, UIL Building,

No. 4, Esplanade, Chennai – 600 108.

CIN : U66010DL1947GO1007158

www.orientalinsurance.org.in



TECHINICAL BID

FOR INTERIOR FURNISHING, ELECTRICAL & LAN CABLING WORKS FOR DIVISIONAL OFFICE
No. 13, MADHU'S COURT, THIRD FLOOR, JAWAHARLAL ROAD, VADAPALANI,
CHENNAI -600 026.

Consultants:



New No: 258, Tambaram - Velachery Road,

Selayur, Chennai - 600 073.

Mobile : 98412 81968



NOTICE INVITING TENDER

Sealed tenders on three cover system are invited on behalf of the Regional Manager, Oriental Insurance Company. Ltd., Regional Office, IV Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, on item rate basis from competent contractors having sound technical and financial capacity to do interior, furnishing, electrical and LAN Cabling works for Divisional Office No. 13, Madhu's Court, Third Floor, No. 94, Jawaharlal Nehru Road at Vadapalani, Chennai – 26.

Name of work	:	Interior, Furnishing, Electrical & LAN (Data) Cabling works.
Estimated Project Cost	:	Rs. 13,30,000/- (Rupees Thirteen Lakhs Thirty Thousand only)
Issue of Tender Documents	:	May be downloaded from our website From 16/06/2017 to 29/06/2017 (or) May be personally collected from office of The Regional Manager, OICL Limited, Regional Office, Fourth Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, from 11.00 AM to 4.00 PM on Working days.
Cost of tender document	:	Rs. 500/- (non refundable) in the form Cash or DD drawn in favour of The Oriental Insurance Co. Ltd., payable at Chennai.
Earnest Money Deposit	:	Rs. 13, 300/- (Rupees Thirteen Thousand Three Hundred only) payable by way of DD drawn in favour of The Oriental Insurance Company Ltd., payable at Chennai.
Last date and time for submission of Filled in Tender Documents	:	30/ 06/ 2017 up to 4.00 PM
Opening of Tender (Technical Bid)	:	03/ 07/ 2017 AT 3.00 PM
Duration for completion of works	:	25 days (Twenty Five) from the date of issue of work order
Liquidated damages for any delay	:	1% per week up to a maximum of 10% of Tender Value.
Defects liability period (DLP)	:	Twelve Months
Validity of the tender	:	30 days



Sales Tax, VAT, Service Tax, Transport, Octroi, etc. : As the roll out of GST is envisaged by 1st July 2017, the price bid shall be quoted separately for the cost of materials + VAT as on date, which shall be calculated as per the rates applicable after July 1 2017 and Labour + Service Tax as on date, which shall be calculated as per the rates applicable after July, 1, 2017)

Note: The price escalation, if any, in any of the material or labour part, due to implementation of GST, shall not be considered or paid and, only the taxes part shall be considered at the time of billing or payment.

Wastages and working in shifts etc., : The quoted rates should include all costs

Type and submission of tender : Three Cover System. (See clause 3 of the general conditions)

Note: **OICL** is not bound to accept the lowest tender & reserves the right to accept or reject any or all the tenders without assigning any reasons whatsoever.

GENERAL RULES & CONDITIONS

1. Tenders are hereby invited on behalf of Regional Manager, Oriental Insurance Company. Ltd., Regional Office, IV Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, for the proposed Interior & Furnishing, Electrical & LAN Cabling works at their Divisional Office No. 13, Madhu's Court, Third Floor, No. 94, Jawaharlal Nehru Road at Vadapalani, Chennai – 26.

2. **ELIGIBILITY CRITERIA:**

a. **Structure and Organisation:**

(Attach details regarding the organisational structure, constitutional status, particulars of registration with Govt. bodies, name and titles of administrative and technical staff, and details as necessary to support the status).

b. **Registration as contractor:**

Those who are already in the panel list of any Public sector insurance companies with satisfactory completion certificates for interior works, any Govt. Of India organisations such as CPWD, MES, Railways, Nationalised Banks, etc., and

Should have completed during the last three years ending 31.12.2016

Three similar works of at least 40% of the Tender Value each costing at least Rs.5.48 Lakhs.

or

Two similar works of at least 50% of the Tender Value each costing Rs. 6.85 Lakhs.

or

One similar work of at least 80% of the Tender Value costing not less than Rs. 10.96 Lakhs.

(Copies of empanelment with such organisations and completion certificates should be attached)



c. **Turn over details:**

Financial turnover of minimum 5.48 Lakhs for the last three years.
(Copies of audited balance sheet to be attached)

d. **IT Clearance:**

Copies for the IT returns for the last three years should be submitted along with the technical bid.

e. **EMD Amount:** DD for the EMD amount should be enclosed along with the technical bid.

3. SUBMISSION OF TENDER:

- a. The Tender must be submitted in original and as per details given hereunder. Documents as required as per pre-set conditions given above shall be submitted along with Volume I and the rates shall be filled in the Schedule of quantities given in Volume II, of the tender document.
- b. Tender shall be submitted in two parts in separately sealed envelopes as described below:
- c. Volume I: Technical and Commercial aspects of the offer and Tender Drawings, EMD and details as listed in eligibility criteria. Envelope shall be superscribed as "Technical Bid for Interior Furnishing, Electrical & LAN Cabling Works for Divisional Office No. 13, Vadapalani, Chennai".
- d. Volume II: Only Priced Schedule of Quantities in Original. Envelope shall be superscribed as "Financial Bid for Interior Furnishing, Electrical & LAN Cabling Works for Divisional Office No. 13, Vadapalani, Chennai".
- f. The common envelope containing Volume I and Volume II of the Tender shall be duly superscribed "Tender for Interior Furnishing, Electrical & LAN Cabling Works for Divisional Office No. 13, Vadapalani, Chennai" and shall be submitted before the last date and time as stipulated.
- g. Volume II - Financial Bid shall contain only the "Schedule of Quantities" and no conditions whatsoever. Any conditions / stipulated by the tenderer in Volume II will not be taken into consideration for evaluation of the tenders and may lead to disqualification/rejection of the tender
- h. Tenderers are requested to quote strictly as per the terms and conditions, specifications, drawings and tender document and not to stipulate any deviations.

4. Tender documents consisting of the plans, complete specifications, the schedule of quantities of the various classes of work to be done, and the set of conditions of contract to be complied with by the person whose tenders may be accepted, can be purchased from the office of Oriental Insurance Company. Ltd., Regional Office, IV Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, between 10.00 A.M. and 4.00 P.M. from 16/06/2017 to 29/06/2017.



5. The site for the work is available / or the site for the work shall be made available in parts as specified below.
6. Tenders, which should always be placed in a sealed cover, with the name of project written on the envelopes will be received by The Regional Manager, Oriental Insurance Company Ltd., Regional Office, Chennai up to 4.00 P.M. on 30.06.2017. The tenders (Technical Bids) will be opened on 03.07.2017 at 3.00 P.M
7. The time allowed for commencing the work is three days from the date of written orders from the Company.
8. The contractors should quote in figures as well in words the rates and amounts tendered by them. The amount for each item should be worked out and the requisite totals should be given.
9. When a contractor signs a tender in any Indian languages the percentage above or below and the tendered amount in the same language. In case of illiterate contractors the rates or the amounts tendered should be attested by a witness.
10. Earnest Money Deposit, amounting to Rs. 13, 300/- (Rupees Thirteen Thousand Three Hundred Only) in the form of Demand Draft drawn in favour of "The Oriental Insurance Company Ltd.," must accompany the tender for "Interior Furnishing, Electrical & LAN Cabling works". Each tender is to be in sealed cover superscripted "Tender for Interior, furnishing, Electrical & LAN Cabling works" for Divisional Office No. 13, Madhu's Court, Third Floor, No. 94, Jawaharlal Nehru Road at Vadapalani, Chennai - 26. The EMD of the contractor, whose tender is accepted, shall be forfeited in full, in case he/she fails to remit the Initial Security Deposit within the stipulated period or start the work by the stipulated date mentioned in the award letter.
11. The acceptance of the tender will rest with "The Oriental Insurance Co. Ltd.," which does not bind itself to accept the lowest tender, and or reserves to itself the authority to reject any or all of the tenders received without assigning any reason. All tenders in which any of the prescribed conditions are not fulfilled or, are incomplete in any respect are liable to be rejected.

The Oriental Insurance Co. Ltd., 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.
12. Canvassing in any form in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to be rejected.
13. All rates shall be quoted on the proper form of the tender alone.
14. An item rate tender containing percentage below / above will be summarily rejected.
15. On acceptance of the tender, the name of the authorised representative(s) of the contractor who would be responsible for taking instructions from the Employer / Architects shall be communicated to the Company.



16. Special care should be taken to write the rates in figures as well as words and the amounts in figure only in such a way that interpolation is not possible. The total amount should be written both in figures and in words followed by the words "only". Paise should be invariably up to two decimal places. While quoting the rate in schedule of quantities, the word "only" should be written closely following the amount and it should not be written in the next line.
17. The Oriental Insurance Company Ltd, 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 as the rate quoted.
18. VAT or any other tax on material or on any finished works like Works Contract Tax, Turn over tax and any other tax in respect of this contract shall be payable by the contractor and the Oriental Insurance Company Limited, will not entertain any claim whatsoever in this respect.

Service tax as per the prevailing norms shall be applicable. The contractor's shall fill in the appropriate column provided in the price bid. No claims shall be allowed if not filled.

However, as the roll out of GST is envisaged by 1st July 2017, the price bid shall be quoted separately for the cost of materials + (VAT as on date, which shall be calculated as the taxes may be after July 1, 2017), and Labour part + (Service Tax as on date, which shall be calculated as the taxes may be after July, 1, 2017)

Note: The price escalation, if any, in any of the material or labour part, due to implementation of GST, shall not be considered or paid and, only the taxes part shall be considered at the time of billing or payment.

19. The tender for the works shall remain open for acceptance for a period of 30 Days from the date of opening of tenders. If any tenderer withdraws his tender before the said period, the Oriental Insurance Co. Ltd., shall be at liberty to retain the Earnest Money Deposit paid along with the tender.
20. The tender for the work shall not be witnessed by a contractor or contractors who himself / themselves has / have tendered for the same work. Failure to observe this condition would lead to the tenders of the contractors tendering as well as witnessing the tender liable to be summarily rejected.
21. It will be obligatory on the part of the tenderer to sign the 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 of The Oriental Insurance company Limited.
22. Any clarifications on the design and drawings may be sought from office of the consulting architect, M/s. SRISHTI, 258, Velachery-Tambaram Road, Selaiyur, Chennai - 73 on working days from 11.00 Am to 5.30pm.
23. If the contractor or his representatives are found to be absent from the site for more than 3 days the contract is deemed to be terminated by him.

Signature of the competent authority



GENERAL CONDITIONS OF CONTRACT

Except where provided for in the description of the individual item in the schedule of quantities and in the specifications and conditions laid down in after and in the drawings, the work shall be carried out as per standard specifications and under the direction of the Company/Architect.

1. INTERPRETATION

In constructing these conditions, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning here in assigned to them except where the subject or context otherwise requires.

Company: The term Company shall denote The Oriental Insurance Company. Ltd., Regional Office, IV Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, or any of its employee/s or representatives authorized on their behalf.

Architects: The term Architects shall mean SRISHTI 'The Creative People' 258, Velachery-Tambaram Road, Selaiyur, Chennai - 73, 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.

Contractor: The term contractor shall mean _____ his/their heirs, legal representative, assigns and successors.

Site: The site shall mean the site where the works are to be executed as shown within boundary in red border on the site plan including any building and erections thereon allotted by the employer for the contractor use. The site here mentioned is at the Divisional Office No. 13, Madhu's Court, Third Floor, No. 94, Jawaharlal Nehru Road at Vadapalani, Chennai – 26.

Site engineer: The site engineer shall be appointed by the Contractor. The Contractor 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. When more than one site engineer is appointed, one of them shall be designated as senior site engineer and the other site engineer shall be reporting to the senior site engineer.

Drawings: The work is to be carried out in accordance with drawings, Specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Company 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 Company/architects shall be given access to such drawings or schedule of quantities whenever necessary.

In case of any detailed drawings are necessary the contractor shall prepare such detailed drawings and /or dimensional sketches there for and have it confirmed with the Company/architects prior to taking up such work.



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

“The works” shall mean the work to be executed or done under this contract

“Act of insolvency” shall mean any act as defined by the Presidency Towns Insolvency Act or in Provincial insolvency Act or any other amending statutes.

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

“The schedule of Quantities” shall also mean the schedule of quantities duly priced with the accepted and quoted rates of the contractor.

2. SCOPE

The work consists of construction of Company's (details of work) in accordance with the “drawings” and the “schedule of quantities”. It includes furnishing of all materials, labour, tools and equipment and management necessary for and incidental to the construction and completion of the work, during its progress and upon completion, shall conform to the lines elevations and grades as shown on the drawings furnished by the Company/architects. Should any detail essential for efficient completion of the work be omitted from the drawings and specifications it shall be the responsibility of the contractor to inform the Company /Architects detail with Company/Architects concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use.

Company/Architects may in their absolute discretion issue further drawings and or written instructions, details, and explanations, which are, hereafter collectively referred to as “the Company’s/Architects 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 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.
- e. The dismissal from the work of any person/s employed thereupon.
- f. The opening up for inspection of any work covered up.
- g. The rectification and making good any defects under clauses herein after mentioned and those arising during the maintenance period (retention period).



The contractor shall forthwith comply with and duly execute any work comprised in such Company's / Architects instruction, provided always that verbal instructions, directions and explanations given to the contractor or his representative upon the works by the Company/Architects shall, if involving a variation be confirmed in writing to the contractors within seven days. No works for which rates are not specifically mentioned in the priced schedule of quantities shall be taken upon without written permission of the Company/Architects. Rates of items not mentioned in the price schedule of quantities shall be fixed by the Company in consultation with the architects as provided in clause "variation".

Regarding all factory made products for which BIS (Bureau of Indian Standards) marked products are available, only products bearing BIS marking shall be used in the work.

3. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site 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 including police restriction for transport etc., for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled to any claim of commencement of work or which in the opinion of Company/architects might be deemed to have reasonably been inferred to so exist before commencement of work.

4. TENDERS

The entire set of Tender papers issued to the tenderers 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 as follows:

- I. The rate columns to be legibly filled in ink both in figures and English words.
- II. Amount column to be filled in for each item and the amount for each sub head as detailed in schedule of quantities.
- III. All corrections are to be initialled.
- IV. The rate column for alternative items shall be filled up.
- V. The amount column for alternative items for which the quantities are to be mentioned shall not be filled up.
- VI. In case of any error/correction, the rates given in the tender marked 'original' shall be taken as correct rates.



No notifications, 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 Company 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 part of work to any specialist firm or firms, without assigning any reason.

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 Company/ Architects detailed analysis of any or all the rates shall be submitted. The Company/Architects 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 unless otherwise specified.

All items of work described in the schedule of quantities are to be deemed and paid as per complete works in all respect 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 tendering aspect of any item of works, the payments of such items of work will be made for the actual work done on the basis of lump sum charges as will be assessed to be payable by the Company/Architects.

The Company has the power to add to, omit from any work as shown in drawings or described in the specifications or include in the 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 Company. No variation shall vitiate the contract.

5. AGREEMENT:

The successful contractor may be required to sign an agreement as may be drawn up to suit local conditions and shall pay for all stamps and legal expenses, incidental thereto.

6. TAXES AND DUTIES:

VAT or any other tax on material or on any finished works like Works Contract Tax, Turn over tax and any other tax in respect of this contract shall be payable by the contractor and the Oriental Insurance Company Limited, will not entertain any claim whatsoever in this respect.

Service tax as per the prevailing norms shall be applicable. The contractor shall fill in the appropriate column provided in the price bid. No claims are allowed if not filled. However, as the roll out of GST is envisaged by 1st July 2017, the price bid shall be quoted separately for the cost of materials + VAT as on date, which shall be calculated as the taxes may be after July 1 2017), and Labour part + (Service Tax as on date, which shall be calculated as the taxes may be after July, 1, 2017)



Note: The price escalation, if any, in any of the material or labour part, due to implementation of GST, shall not be considered or paid and, only the taxes part shall be considered at the time of billing or payment.

7. PROVISIONAL SUMS:

All provisional sums described in the schedule of quantities as P.S. shall be exclusively allotted to the purchase of materials and not for any handling and fixing to be done by the contractor. Such costs of handling and fixing with profit (including transport charges if required) shall be separately included in the contract price as described in the schedule of quantities. The disposal of amounts covered under this head will be absolutely at the discretion of the Company.

Contractor is to make payments for these materials to the suppliers on certificate or order issued by the Company/Architects and realizes them through his bill from the Company.

8. QUANTITY OF WORK TO BE EXECUTED:

The quantities shown in the schedule of quantities are intended to cover the entire work indicated in the drawings / tender but the Company reserves the right to delete any item from the scope of work, execute only a part or the whole or any excess thereof without assigning any reason there for.

9. OTHER PERSONS ENGAGED BY THE EMPLOYERS:

The Company reserves the right to execute any part of the work included in this contract or any work, which is not included in these contracts by other agency or persons and contractor shall allow all reasonable facilities and use of his scaffolding for the execution of such work. The main contractor shall extend all cooperation in this regard.

10. EARNEST MONEY AND SECURITY DEPOSIT:

The tenderer shall deposit an amount of Rs. 13, 300/- (Thirteen Thousand Three Hundred Only) for Interior, furnishing & electrical works, in the form of bank draft in favour of Oriental Insurance Co. Ltd., at the time of submission of tender as Earnest Money Deposit. The Company is not liable to pay any interest on the EMD. 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.

The successful tenderer to whom the contract is awarded will have to deposit as initial security deposit a further sum to make up 2% of the value accepted tender including the Earnest Money Deposit.

The initial security deposit will have to be made within 7 days from the date of acceptance of tender, failing which the Contractor at its discretion may revoke the letter of acceptance and forfeit the EMD furnished along with the tender. The initial security deposit will be refunded after satisfaction and completion of work (as certified by the architect).



Apart from the initial security deposit made as above, retention money shall be deducted from progressive running bill @ 8 % of the gross value of each running bill.

50% of the retention amount will be refunded to the contractor, on the completion of work and the balance will be paid after the end of defects liability period provided he has satisfactorily carried out all the work and attended to all the defects in accordance with the conditions of the contract. No interest is allowed on retention money.

11. 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 drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown described therein provided that the same can reasonably be inferred there from. The contractor shall provide himself for ground and fresh water for carrying out of the works at his own cost. The Company 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, staging, 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 Company / architects. 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 levelled where so required by the drawings unless the Company shall otherwise direct.

The contractor shall at times give access to employees/Officers of the Company or any other person employed on the building and to provide them with water and lighting and leave or make any holes, grooves etc., in any work. Where directed by the Company as may be required to enable such workman 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.



12. TIME OF COMPLETION/EXTENSION OF TIME & PROGRESS CHART

1. **Time of completion:** The entire work is to be completed in all respects within the stipulated period of 25 (TWENTY FIVE) days. The work shall be deemed to have commenced within 3 days from the date of acceptance letter or date of handing over of site, whichever is earlier. Time is the essence of contract and shall be strictly observed by the contractor. The work shall not be considered as complete until the Company/ Architects have certified in writing that the work has been complete and the defects liability period shall commence from the date of such certificate.
2. **Extension of time:** If in the opinion of the Company/Architects the works be delayed (a) by reason of any exceptionally inclement weather or (b) by reason of instructions from the Company in consequence of proceedings taken or threatened by or disputes, with adjoining or neighbouring owners or (c) by the works, or delay of other contractors nominated by the Company and not referred to in the specification or (d) by the reason of authorized extra and additions or (e) by reason or any combination of works men or strikes or lock-out affecting any of the building trade or (f) from other causes which the Company may consider are beyond the control of the contractor, the Company at the completion of the time allowed for the contract shall make fair and reasonable extension of time for completion in respect therefor. In the event of the Company failing to give possession of the site upon the day specified above, the time of completion shall be extended suitably.

In case of such strikes or lockouts as are referred to above, the contractor shall, immediately give the Company, written notice thereof. Nevertheless he shall use his best endeavours to prevent delay, and shall do all that may be reasonably required, to the satisfaction of the Company for any extension of time for completion hereunder (which shall be final and binding on the contractor) shall be promulgated at the conclusion of such strike or lock-out and the Company shall then, in the event of an extension being granted, determine, and declare the final completion date. The provision in clause 13 with respect to payments of liquidated damages shall be construed as if the extended date fixed by the Company were substituted for and the damages shall be deducted accordingly

3. **Progress of work:** During the period of construction the contractor shall maintain proportionate progress on the basis of programme chart submitted by the contractor immediately before commencement of work and agreed to by the Company/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.

13. LIQUIDATED DAMAGES

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



- a. For contracts having time for completion of 6 months and less 1% of the estimated amount shown in the tender per week subject to a maximum of 10% of the accepted contracted sum.
- b. For contracts having time for completion exceeding 6 months & less than 2 years 0.50% of the estimated amount in the tender per week subject to maximum of 7.5% of the accepted contracted sum.

14. 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 systems the structures were proposed to have connection and shall before main and variation from the drawings or specification that may be associated to so conform, give the Company/Architects written notice/s specifying the variations proposed to be made and the reasons for making them and apply for instruction thereon. The Company/Architects on receipt of such intimation shall be give a decision within a reasonable time.

The contractor shall arrange to give all notice/s required for by the said Acts. Regulations or Bye-laws to be given to any authority and to pay such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipt with the Company.

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

15. ACCESS

Any authorized representative of the Company shall at all reasonable times have free access to the workshop, factories or other place where materials are being prepared or constructed for the works and also to any place where the materials are lying or from where the materials are being obtained, and the contractor shall give every facility to the Oriental Insurance Company Limited, or their representative everything necessary for inspection and examination and testing of the materials and workmanship. Except the authorised representative of the Company no person shall be allowed at any time without the written permission of the Company.

16. MATERIALS, WORKMANSHIP, SAMPLE, TESTING OF MATERIALS

All the works specified and provided for in the specification or which may be required to be done in 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 (i) If required by the Company/architects during the execution of the work, and to their entire satisfaction; (ii) If required by the Company/Architects the contractor shall carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Company/Architects at his own cost to prove that the materials etc. under test, conform to the



relevant B.I.S or as specified in the Tender 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 payments on this account should in any case be entertained.

All the materials (except where otherwise described) stores 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 work. The work must be done in the best workmanlike manner. Samples of all materials to be used would be submitted to the Company/Architects when so directed by the Company/Architects and written approval from the Company/architects must be obtained prior to placement of order.

During the inclement weather contractor shall suspend concreting and plastering for such time as the Company/ architects 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 and at his own expenses and 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, temporary/doors, protection to windows and any other requisite protection for execution of the work whether by himself or special tradesmen or sub contractor and any damage caused must be made good by the contractor at his own expense.

17. REMOVAL OF IMPROPER WORK

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

18. SITE ENGINEER

The term "site engineer" shall mean the person appointed and paid by the Company to supervise the work. The contractor shall afford the site engineer every facility 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, addition, alterations, deviations or omissions or any extra work whatsoever except in so far such authority may be specifically conferred by a written order of Company/Architects.

The site engineer shall have power to give notice to the contractor or to his foreman for 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 Company is obtained. The work will from time to time be examined by the engineer from the premises department of the Company and by the architects. But such examinations 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 of this clause, the contractor shall take instructions only from the Company/Architects.

19. CONTRACTOR'S EMPLOYEES

The contractor shall employ technically qualified and competent supervisor for the work who shall be available (by turn) throughout the working hours to receive and comply with instructions of Company/Architects. 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 labourers on the work as far as possible.

No labourer below the age of eighteen 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 Company or their representative shall be deemed to be a person employed by the contractor.

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

- a. The payment or 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. Any other act or enactment relating thereto and rules framed there under from time to time.

The contractor shall keep the Company saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Company in connection with any claim that may be made by any workmen.



The contractor shall comply at his own cost with order of requirement of any health officer of the state or any local authority or of the Company regarding the maintenance of proper environmental sanitation of the area where the contractors' 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 works and shall remove and clear away 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 of execution of the works, report such accident to the Company and also to the Competent Authority where such report is required by the law.

20. DISMISSAL OF WORKMEN

The contractor shall on the request of the Company immediately dismiss from works any person employed thereon by him, who, in the opinion of Company be unsuitable or incompetent or who is found to be indulging in any act of misconduct. Such discharges shall not be the basis of any claim for compensation damages against the Company or any of their officer/s or employee/s.

21. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.

The contractor shall be responsible for any 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 of neglect to himself or of any sub-contractor or of any of his or sub-contractor's employees, whether such injury or damages arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract. The cause shall be held to include inter-alia, streets, footpath 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 Company and hold harmless in respect of all and any 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 to persons or property as aforesaid under any acts of compensation or damage consequent upon such claim.

The Company 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 damage from any sums due or to become due to the contractor.

22. INSURANCE

Unless otherwise instructed the contractor shall insure the works and keep them insured until the virtual completion of contract against any loss or damages by fire and/or earthquake flood. The insurance must be placed with an Insurance Company approved by the Oriental Insurance Company, in the joint names of the The Oriental Insurance Company Ltd., as the Principals and



the contractor for such amount and for any further sum if called to do by the Company. The type of insurance policies to be taken by the Contractors are (i) Contractors All Risk Policy for the Project Cost/Tender Value & (ii) Workmen Compensation Policy for the workmen

The contractor shall deposit the policy/ies with the employer within 7 days from the date of issue of work order. In default of the contractor insuring as provided above, the Company on their own may so insure and may deduct the premiums paid from any bills, which may become due to the contractor. In case of a claim under any of the insurance policies, 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 claim has not occurred and in all respects under the conditions of the contract. The contractor in case of rebinding or reinstatement after claim shall be entitled to extension of time for completion as the Company may deem fit.

23. ACCOUNTS RECEIPTS AND VOUCHERS

The contractor shall, upon the request of the Company/Architects furnish them all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract. If 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 has actually used shall be deducted from his dues. The decision of Company shall be final and binding on the contractor as to the amount of materials the contractor is required to use for any work under this contract.

Before taking measurement of any work, the site engineer or subordinate deputed by the Contractor shall give reasonable notice to the contractor. If the contractor fails to attend at the time of measurement after such notice or fails to countersign or to record the difference within a week from the date of measurement in the manner required by the site engineer than in any such event the measurement after such notice taken by the site engineer or by subordinate deputed by him as the case may be is final and binding on the contractor and contractor shall have no right to dispute the same.

24. PAYMENTS

All bills shall be prepared by the contractor in the form prescribed by the Company/Architects. One interim bill shall be prepared every week subject to minimum value for interim certificate as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurements in support of the quantities or work done and must show deductions for all previous payments, retention money etc.

The Company/Architects shall issue a certificate after due scrutiny of the contractor's bills stating the amount due to the contractor from the Company and the contractor shall be entitled to payment thereof, within the period of honouring certificates named in these documents.



The amount stated in an interim certificate shall be the total values of work properly executed as per tender up to the date of the bill less the amount to be retained by the Company as retention money vide Clause 10 of these conditions, recovery of TDS and less instalment previously paid under these conditions, provided the certificate shall only include the value of said materials and goods as from such time as they are reasonably, properly and not prematurely brought and placed adjacent to the work and then only if adequately protected against weather or other casualties.

The Company will deduct retention money as described in clause 10 of these conditions. The refund of retention money will be made as specified in the said clause.

If the Company has supplied materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor, in accordance thereof. All the interim payments shall be regarded as payments for work actually done and completed, and imperfect or unskilled work to be removed and taken away and reconstructed or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the according of any claim, nor shall, it determine or affect in anyway the power of the Company under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way affect the contract. The final bill shall be submitted by the contractor within one week of the date fixed for completion of the work or of the date of certificate of completion furnished by the site engineer. All final payments shall be made within 3 months.

25. FINAL PAYMENTS

The final bill shall be accompanied by a certificate of completion from the Architects. Payments of final bill shall be made after deduction of retention money as specified in clause 10 of these conditions, which sums shall be refunded after completion of defects liability period after receiving the architect's certificate that the contractor has rectified all defects to the satisfaction of the Company. 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.

26. VARIATION / DEVIATION

The price of all such additional items/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing or on engineering rate analysis based on prevalent fair price of labour, material and other components as required.

27. SUBSTITUTION

Should the contractor desire to substitute any materials and workmanship, he/they must obtain specific approval of the Company/Architects in writing.



28. PREPARATION OF BUILDING WORKS FOR OCCUPATION AND USE ON COMPLETION

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

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

29. CLEARING SITE ON COMPLETION

On the completion of the works the contractor shall clear away and remove from the site all construction plans, 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 Company / Architects.

30. DEFECTS AFTER COMPLETION

The contractor shall make good at his own cost and to the satisfaction of Company all defects, shrinkage, settlements or other faults which may appear within 12 months after completion of work. In default the Company may employ a person and amend and make good such damage, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Company or may be deducted from 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 amount retained under clause No. 11 together with any expenses the Company may have incurred in connection their with.

31. ESCALATION

The rate quoted shall be firm throughout the tenure of the contract (including extension of time, if any, granted) and will not be subject to any fluctuation due to increase in cost of materials, labour, VAT, service tax, octroi, etc. unless specifically provided in these documents.

32. IDLE LABOUR

Whatever the reason may be, claim for idle labour, additional establishment cost of hire and labour charges of tools and plants would not be entertained under any circumstance.

33. SUSPENSION

If the contractor except on account of any legal restraint upon the Company preventing the continuance of the work or in the opinion of the Company shall 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 Company shall have the power to give notice in writing to the contractor requiring the work be proceeded within a reasonable manner and with reasonable dispatch, such notice purport to be 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 consequence 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 there in prescribed the Company may proceed as provided in clause 34 (Termination of contract by Company).

34. TERMINATION OF CONTRACT BY COMPANY:

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 Deed of arrangement with his creditors, or if the Official Assignee 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 Company that he is able to carry out and fulfil the contract, and if so required by the Company to give reasonable security there for, or if the contractors shall suffer execution to be issued, or 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 contractors in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the works, or shall in the opinion of the Company not exercise such due diligence and make such due progress as would enable the work to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the Company 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 Oriental Insurance company Limited, may, notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby affecting the powers of the Company or the obligations and liabilities of the contractor the whole of which shall continue in force as fully as if the contract, had not been so determined and as if the works subsequently executed had been executed by or on behalf of the contractor (without thereby creating any trust in favour of the contractor) further the Company may enter upon and take possession of the work and all plants, tools, 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 employ the same by means of his own servants and workmen in carrying on and completing 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 or thing to prevent or hinder such other contractors or other persons or person 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 Company shall give notice in writing to the contractor to remove his surplus materials and plants and should the contractor fail to do so within a period of fourteen days after receipt by him the Company 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 Company 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 contractors or against the Security deposit.

35. ARBITRATION

All disputes or differences of any kind whatsoever which shall at any time arise between the parties hereto touching or concerning the works or the execution or maintenance thereof of this contract of the rights touching or concerning the works or the execution or maintenance thereof of this contract of the construction remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or 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 Company 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 Company will send within thirty days of receipt of the notice 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 Company within thirty days of receipt of the names. The Company 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 shall make the selection and appoint the selected person as the sole Arbitrator.

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

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

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

The award of the arbitrator shall be final and binding on 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 Company and the contractor hereby also agree that arbitration under this clause shall be condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

DECLARATION

I / We hereby declare that I / We have read and understood the above terms and conditions and that we shall abide by them if the work is awarded to us.

Contractor's Signature with Seal



ADDITIONAL CONDITIONS OF CONTRACT

1. COMPLETION SCHEDULE

The contractor will be required to work according to a programme given to them by the consulting Architects, based on the priorities of the Company. The contractor will be required to prepare bar charts/Flow Charts on the basis of the programme given to them and get these approved by Company/Architects. The overall completion programme of the work will be 25 days.

2. WATER AND ELECTRICAL ENERGY

The contractor has to make his own arrangements for water, storage and distribution for the work. Electricity will be supplied by the Company, at one electrical point for the work free of cost.

3. OTHER RULES AND REGULATIONS

- a. All E.S.I formalities or prescriptions under Workmen Compensation Act will be adhered to by the contractor. He will have to observe the regulations prescribed under the contracts Labour-Regulations & Abolition Act, 1970 and rules formed there under.
- b. The contractor shall not employ any labour below the age of 18 years and shall pay his labourers not less than the wages paid for similar work or the fair wage. Fair wage means wage whether for time or piece work as defined in the minimum wages act.



PREAMBLE TO SCHEDULE OF QUANTITIES

1. Tender shall be on the basis of items rates which shall include the cost of materials labour, all taxes, duties, and all other appurtenant services required for the complete installation, testing and commissioning in accordance with relevant drawings and meeting the requirements of the specifications and relevant I.S. specification including the fees for inspection together with the liabilities and obligations as detailed in the general conditions of contract.
2. Prices shall remain firm and free from variation due to rise and fall in the cost of materials and labour or any other price variation whatsoever whether during the stipulated period of execution or during extended period of completion if any, except direct statutory, increases by the Act of Govt. or Local bodies.
3. Item rates shall remain valid for any variations in the estimated quantities given in the schedule of quantities.
4. In order to facilitate the technical scrutiny of various quotations, the tenderer must supply with their quotations, the detailed technical particulars, makers' catalogues and erection drawings for various items under different parts specified in the schedule of quantities.
5. The drawings and specifications lay down minimum standards for equipment and workmanship. Deviations, if any, shall be clearly set down. In the absence of any deviations, it will be deemed that the tenderer is fully satisfied with the intents or the specifications and drawings and their compliance with the statutory and fire insurance provision including local codes. Where the drawings and specifications conflict, the more stringent shall apply.
6. All installations shall be tested as specified and a test certificate in the prescribed form required by the authorities shall be furnished.
7. The entire installation shall be guaranteed against any defective materials or workmanship for a period of 12 months from the date of installation as certified by the architects and taken over by the owner. During the guarantee period, all defects shall be rectified by the contractor, free of cost.
8. Water and power required for works may be made available at site. Use of electrical power will be on chargeable basis. If the water available at site is unsuitable for construction purpose, the contractors will make their own arrangements for water.
9. The tenderers must acquaint themselves of the site conditions and take note of all factors while quoting the rates, as no extra will be allowed on any ground.
10. The Company shall pay the contractor such sums as shall become payable hereunder at the times and in the manner specified in the said conditions.



11. The term "Consulting Architects" in the conditions shall mean the said 'SRISHTI', The Creative People or in the event of their death or ceasing to be the consulting architects for the purpose of this contract, such other person as shall be nominated for that purpose by the Company, not being a person to whom the contractor shall object for reasons considered to be in sufficient by the Company. Provided always that no persons subsequently appointed to be consulting architects under this contract shall be entitled to disregard or over rule any decision or approval or direction or expressed in writing by the consulting architects for the time being.
12. The plan, agreement and documents above mentioned shall form the basis of this contract and the decision of the said Consulting Engineers/ Architects for the time being as mentioned in the conditions of contract in reference to all matters of dispute as to the materials, workmanship or account and as to the intended interpretation of the clauses of the agreement of any other document attached hereto shall be final and binding on both parties and may be made a Rule of Court.
13. The said contract comprises the works above mentioned and all subsidiary works connected therewith within the same site as may be ordered to be done from time to time by the said Company through the consulting architects for the time being, even though such works may not be shown on the drawings or described in the said specifications or the priced schedule of quantities.
14. The Company reserves the right of altering the drawings and nature of the work and of adding to or omitting any items of work or of having portions of the same carried out without prejudice to this contract.
15. The said conditions shall be read and construed as forming part of this agreement, and the parties hereto will respectively, abide by and submit themselves to the conditions and stipulations and perform the agreements on their parts respectively in such conditions contained.
16. Further, letters exchanged between the Company and the contractor after the receipt of this contract as cited shall form an integral part of this contract.
17. The several parts of this contract form have been thoroughly read and fully understood by both the parties.
18. The successful tenderer shall supply completion drawings of the entire installations as executed at site drawn to scale approved by the architects after the completion of the work but before completion certificate is given by the architects.
19. The materials of the first preference shall be used by the contractor, may exclude himself of not doing so only if the required range as per tender specifications is not manufactured by the particular manufacturer. The evidence of such case shall be supported by a letter from the respective manufacturer. Samples of all fittings and accessories shall be approved by the Company/architects prior to their installations.

ARTICLES OF AGREEMENT

Entered into at Chennai this day of _____ Two Thousand Seventeen between The Oriental Insurance Company Ltd., Regional Office, IV Floor, UIL Building, No. 4, Esplanade, Chennai – 600 108, represented by their Regional Manager as the authorised signatory (herein after referred to as “The Company”, which expression shall unless excluded or repugnant to the context, be deemed to include its successors and assigns) of the one part and M/s. _____ (herein after referred to as the “Contractor”, which expression shall unless excluded or repugnant to the context be deemed to include their heirs, Executors, administrators, representatives & assigns) of the other part.

Whereas the Company is desirous of doing Interior furnishing, electrical & LAN Cabling works for their Divisional Office No. 13, at Madhu’s Court, Third Floor, No. 94, Jawaharlal Nehru Road Vadapalani, Chennai - 26, and has drawings and specifications, schedule of quantities describing the work to be done have been prepared by the Architects M/s Srishti, Chennai - 73, under the direction of the Company. The Company is desirous of completing the said work strictly and according to the said drawings and specifications and have floated tenders inviting bids from eligible and qualified contractors for this purpose.

Whereas the contractors in their tender dated _____, having been qualified as L1 Contractors and based on the discussions between the parties hereto, have agreed to execute the said works as per said drawings, specifications and schedule of quantities, rates and subject to the conditions set forth in the special conditions of contracts (all of which are collectively hereinafter referred to as “the said conditions”). The special conditions and condition of contract have been perused, examined and accepted by the contractor. Total tender value is accepted as Rs. _____ (Rupees _____ only).

Whereas the contractor has deposited Rs. _____ (Rupees _____ only) with the Company as Security Deposit for performance of this Contract.

NOW IT IS HEREBY MUTUALLY AGREED AND DECLARED BETWEEN THE PARTIES HERETO AS FOLLOWS:

1. The contractor hereby agrees and undertakes to execute and complete the said works shown in the said drawings and such further detailed drawings as may be furnished to it by the Company and described in the said specifications and the said schedule of quantities and subject to the said conditions.
2. The Company shall for such works pay to the contractor such sums as shall become payable at times, in the manner specified in the said conditions.
3. The said tender and allied documents, drawings, specification, priced schedule of quantities, agreement and documents above mentioned shall form the basis of this contract and the decision of the Company as mentioned in the condition of contract with reference to all matters of disputes as to materials, workmanship of account and as to the interpretation of the clauses of this agreement or the said conditions shall be final and binding on both the parties.
4. The contract herein contained comprises of the said work above mentioned and all subsidiary works connected therewith in the same site as may be ordered to be done from time to time by the Company even though such works may not be shown in the said drawings or described in the said specifications or the schedule of quantities. The contractor hereby agrees and undertakes to do and perform all such works in a thorough and workman like manner, with best materials and within the time limit herein mentioned.
5. The Company reserves the right to alter the drawings and nature of the work and of adding or omitting any item of work or of having portions of the same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.
6. The said conditions shall be read and construed as forming part of this agreement and the parties hereto will respectively abide by and submit themselves to the conditions and stipulations and perform the agreements on their parts respectively as such conditions contained.
7. It will be the entire responsibility of the contractor to procure all materials required for the said works.
8. The contractor shall complete the said work within 25 days from the date of commencement of work as per work order for the work and will remove from the site all plants, scaffoldings, materials in use, rubbish and leave the work site clean within the said period.
9. All disputes arising out of or in anyway connected with this agreement shall be deemed to have arisen in Chennai and only Courts in Chennai shall have jurisdiction to determine the same.
10. The several parts of this contract have been thoroughly read and fully understood by both the parties hereto.

11. The work order issued to the contractor shall be treated as part of this agreement.

In witness where of the parties hereto have set their respective hands on the day month and year above written.

Signed by the said

Company

In the presence of

Contractor.

Signed by the said

In the presence of

Signed by the said

SPECIFICATIONS

All works should confirm to standard laid down by the Bureau of Indian Standards.

Wherever detailed specifications are not given, the works shall be carried out as per CPWD specifications Vol. I & II with latest additions and corrections.

SPECIFICATIONS - GENERAL REQUIREMENTS

IA. List of tender drawings is given elsewhere in the tender documents. These drawings are meant for tenders and construction also. These drawings may be revised and fresh revised copies issued to the contractor from time to time for adoption in work to suit the final designs and the physical conditions encouraged during the progress of work.

IB. Figured dimensions on drawings shall only be followed and drawings to large scale shall take precedence over the smaller scale.

IC. Information noted on the drawings pertaining to the materials and workmanship, if contrary to that given in the specifications, shall have precedence.

ID. The contractor shall prepare, at his own cost, detailed shop drawings and shall obtain the approval of the Company/Architect before adoption.

2A. The specification is intended for general description of quality and workmanship of materials and finished work. They are not intended to cover minute details. The work shall be executed in accordance with sound engineering and other professional practice.

2B. Where reference is made to any standard specification of Bureau of Indian Standards or any other similar body, the information and provisions of the latest revised edition of the specification on the date of submission of such standard specifications are in conflict with the provisions standard in these specifications the latter provisions shall have precedence.

2C. All materials shall be of best quality, manufactured by reputed concerns conforming to Indian Standards or equivalent and shall have "BIS" mark as far as possible unless otherwise approved by the Company/Architect. The contractor shall get all materials approved by the Company/Architect prior to procurement and use.

3. MEASUREMENTS AND PAYMENTS

3A. The quantities stated in the bills of Quantities are tentative. The contractor shall be paid at the quoted rate and on the basis of actual measured dimensions of the finished work, limited however by those dimensions shown in the drawings, or as directed by the Company/Architect.

3B. Measurement of work shall be generally in accordance with IS: 1200 "Method of Measurement of Building and Civil Engineering Work" except where the stipulations of the tender are contradictory.

4. LAYOUTS AND SURVEYS.

The contractor shall be responsible for the true and proper setting out of works, for the correctness of position, levels, dimensions and alignment of all parts of the works and for the provisions of all necessary instruments, appliances and labour in connection there with. If at dimensions or alignments of any part of works, the contractor, on being required to do so, shall at his expenses rectify such errors, checking of any setting out or of any line or level by the Company/Architect shall not in any way relieve the contractor of his responsibility for the corrections thereof.

4. CONSTRUCTION SCHEDULE AND TIME OF COMPLETION

5A. A bar chart/Flow Chart shall be submitted by the contractor detailing out the complete construction activities for each work within 25 days of start of work at site. This chart shall be reviewed by the Company/Architect and alterations, if any, shall be made by the contractor. This chart will form the basis or appraisal to evaluate the progress of work at site.

5B. The drawings shall be issued to the contractor at least one week in advance before commencement of work.

5C. No extension of time shall be granted on the plea of drawings not having been received in time provided the above time schedule is adhered to.

5. COOPERATION WITH OTHER AGENCIES

6A. During the course of implementation of this contract, several other agencies and contractors shall be working at site simultaneously. In order to effect proper coordination and avoid delays, it shall be the responsibility of the contractor of this tender to give adequate notice and exact dates of work proposed to be executed by him which requires the placement and fixation of embedment etc., by the other agencies. The safety and prevention from damage activities would remain with the contractor. In the event of damage or loss, caused indirectly or directly by the contractor or his labour, he will be responsible to make good the same as advised/instructed by the Company/Architect.

6. DELIVERY OF WORKS

Every portion of the work shall be kept clear of accumulation from time to time and delivered clean and free from all defects of any kind at the conclusion of work.

7. RELATION TO OTHER DOCUMENTS

7A. The technical specifications are intended for general description of items listed in the bill of quantities. All works specified or implied in the technical specification form a part of the items in the bill of quantities. Similarly, all indications in drawings and general description of works, whether specified or implied, form a part of the items in bills of quantities.

7B. The quoted rates in the bills of quantities shall be assumed to include all the specified and implied works of the technical specifications, drawings and general description of works even when not specifically mentioned in the bills of quantities.

8. LIFTS AND LEADS

8A. The rates quoted for all items of work shall include all lifts and leads where applicable.

9B. All debris and waste materials shall be disposed away from the site to a far off place as directed.

SAFETY CODE

FIRST AID

1. At every work place, there shall be maintained in readily accessible place first aid appliance including supply of sterilized dressings and sterilized cotton wool. The appliance shall be kept in good order, and in large work place, they shall be placed under the charge of a reasonable person who shall be readily available during working hours.
2. At large work places, where hospital facilities are not available within easy distance of the works, first aid posts shall be established and be run by a trained compounder.

3. In every work place, there shall be provided and maintained at suitable places, easily accessible to labour sufficient cold water fit for drinking.

SCAFFOLDS

1. Suitable scaffolds shall be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except in the case of short duration work which can be done safely from ladders. When a ladder is used, it shall be of rigid construction made either of good quality wood or steel. The steps shall have a minimum width of 450 mm and a maximum rise of 300 mm. Suitable hand holds of good quality wood or steel shall be provided and the ladder shall be given an inclination not steeper than $\frac{1}{4}$ to 1 (1/4 horizontal and 1 vertical).
2. Scaffolding or staging more than 4 m. above the ground floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly bolted, braced or otherwise secured, at least 1 m. above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such openings as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.
3. Working platforms, gangways and stairways shall be so constructed that they do not sag unduly or unequally and if the height of the platform, gangway or stairway is more than 4 m. above ground level or floor level, they shall be closely boarded and shall have adequate width and be suitably fenced as described in (2) above.
4. Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be 1 m.

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

5. Safe means of access shall be provided to all working places. Every ladder shall be securely fixed. No portable single ladder shall be over 9 m. in length while the width between side rails in rung ladder shall in no case, be less than 290 mm. for ladder up to and including 3 m. in length. For longer ladders this width shall be increased at least 20 mm for each additional meter of length.
6. A sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the Engineer obtained prior to construction.

OTHER SAFETY MEASURES

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

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

EXCAVATION & TRENCHING

9. All trenches, 1.25 m. or more in depth shall at all times be supplied with at least one ladder for each 30 m. in length or fraction thereof. The ladder shall be extended from bottoms of the trench to at least 1 m. above the surface of the ground. Sides of trenches which are 1.5 m. or more in depth shall be stepped back to give suitable slope or securely held by timber bracing so as to avoid the danger of sides collapsing. The excavated materials shall not be placed within 1.5 m. of the edges of the trench or half of the depth of the trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.
10. The contractor shall take all measures on the site of the work to protect the public from accidents and shall be bound to bear the expenses of defence of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any such persons or which may with the consent of the contractor, be paid to compromise any claim by any such person.

DEMOLITION

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

PERSONAL SAFETY EQUIPMENTS

12. All necessary personal safety equipment as considered adequate by the Engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by those concerned.
- a. Workers employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
 - b. Those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.

- c. Those engaged in welding works shall be provided with welder's protective eyesight lids.
- d. Stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- e. When workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into manholes and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
- f. The contractor shall not employ men below the age of 18 years and women on the work of painting with products containing lead or any toxic material in any form. Wherever men above the age of 18 are employed on the work of such painting, the following precautions should be taken:
 - i. No paint containing lead or lead products shall be used except in the form of paste or ready made paint. Paints like vinyl and epoxies having toxic fumes should be applied after following all precautions laid down by manufacturers.
 - ii. Suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
 - iii. Overalls shall be supplied by the contractor to the workmen and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

13. When the work is done near any public place where there is risk of drowning all necessary equipments should be provided and kept ready for use and all necessary steps taken for prompts rescue of any person in danger and adequate provision should be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

HOISTING MACHINES

14. Use of hoisting machines and tackle including their attachments anchorage and supports shall conform to the following standards or conditions:
- a. These shall be of good mechanical constructions sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.
 - b. Every rope used in hoisting or lowering materials of as means of suspension shall be of durable quality and adequate strength and free from patent defects.

- c. Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding winch or give signals to operator.
 - d. In case of every hoisting machine and of every chain ring hook, shackle shovel and pulley block used in hoisting or as means of suspension the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load. In case of a hoisting machine having a variable safe working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose or testing.
 - e. In case of departmental machines, the safe working load shall be notified by the Engineer. As regards contractor's machines, the contractors shall notify the safe working load of the machine to the Engineer whenever he brings any machinery to site of work and get it verified by the Engineer concerned.
15. Motors, gearing, transmission, electric wiring and other dangerous parts of hoisting appliances should be provided with such means as will reduce to the minimum of the risk or any part of a suspended load becoming accidentally displaced. When workers are employed on electrical installations which are already energised, insulating mats, wearing apparel, such as gloves, sleeves and boots as may be necessary, should be provided. The workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
16. All scaffolds, ladders and other safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.
- Adequate washing facilities should be provided at or near places of work.
17. These safety provisions should be brought to the notice of all concerned by display on a notice board at a prominent place at work spot. The person responsible for compliance of the safety code shall be named therein by the contractor.
18. To ensure effective enforcement of the rules and regulations relating to safety precautions the arrangements made by the contractor shall be open to inspection by the Labour Officer, Engineers of the Department or their representatives.
19. Notwithstanding the above clause from (1) to (18), there is nothing in these to exempt the contractor from the operations of any other Act or Rule in force in the Republic of India.

STRUCTURE AND ORGANISATION

- 1 Name and address of the applicant

- 2 Telephone No.
Fax No.
Mobile No.
E-Mail address

- 3 Year of establishment

- 4 Bankers name and address

- 5 Pan No.

- 6 Tin no.

- 7 Ser. Tax. No.

- 8 Legal Status (attach copies of original document defining the legal status)
 - (a) An Individual
 - (b) A proprietary Concern
 - (c) A Firm in partnership
 - (d) A Limited Company or Corporation.

- 10 Particulars of registration with various Government bodies (Attach attested photo-copy)
 - (a) Registration Number.
 - (b) Organisation / Place of Registration.

- 11 Names and Titles of Directors and officers with designation to be concerned with this work with Designation of individuals authorized to act for the organisation.

- 12 Was the applicant ever required to suspend works for a period of more than six months continuously after commencement of works? If so, give the name of the project and give reasons

thereof.

- 13 Has the applicant or any constituent partner in case of partnership firm/Company, ever abandoned the awarded work before its completion? If so, give the name of the project and give reasons thereof.
- 14 Has the applicant or any constituent partner in case of partnership firm/ Company, ever been debarred / black listed for tendering in any organisation at any time? If so, give details:
- 15 Has the applicant or any constituent partner in case of partnership firm or any Director in case of a Company or any criminal proceedings presently pending, ever been convicted by a court of law? If so, give details.
- 16 Any other information considered necessary but not included above.

SIGNATURE OF APPLICANT (S)

**DETAILS OF ALL WORKS OF SIMILAR CLASS COMPLETED DURING THE LAST
THREE YEARS ENDED 31.12.2017**

SL.	Name of work/ Project	Owner or sponsoring organisations	Scope of work *	Cost of work (Rs.in Lakh)	Date of commencement as per contract	Stipulated date of completion	Actual date of completion	Arbitration pending/ in progress with details **	Name and address/ Tel No. of officer to whom reference may be made	Remarks
1	2	3	4	5	6	7	8	9	10	11

* Pertaining to civil, electrical, interior, furnishing & allied works

** Indicate gross amount claimed and amount awarded by the Arbitrator

SIGNATURE OF APPLICANT(S)

PROJECTS UNDER EXECUTION OR AWARDED

Sl.	Name of work/ project & location	Owner or sponsoring organisations	Cost of work (Rs. Lakh)	Date of commencement (as per contract)	Stipulated date of completion	Upto date percentage progress of work	Slow progress and reasons thereof	Name & address/ Tel No. Of officer to whom reference may be made	Remarks (Indicate whether any show cause notice issued or arbitration initiated during the progress of work)
1	2	3	4	5	6	7	8	9	10

SIGNATURE OF APPLICANT(S)

DETAILS OF KEY TECHNICAL AND ADMINISTRATIVE PERSONNEL EMPLOYED BY THE FIRM/ COMPANY

SL.	Designation	Total Number	Names	Qualification	Professional Experience	Length of continuous service with employer
1	2	3	4	5	6	7

Note: additional information about Technical consultant, if any, may be submitted on separate sheet.

SIGNATURE OF APPLICANT(S)

**DETAILS OF TOOLS, PLANT AND EQUIPMENT LIKELY TO BE USED IN CARRYING
OUT THE WORK**

Sl. No	Name of the Equipment/ Instrument	No.S	Capacity or Type	Age	Condition	Ownership Status			Current Location	Remarks
						Presently Owned	To be purchased	Leased		
1	2	3	4	5	6	7	8	9	10	11
1										
2										
3										

SIGNATURE OF APPLICANT(S)

FINANCIAL INFORMATION

- I. Financial Analysis - Details to be furnished duly supported by figures in Balance Sheet / Profit and Loss Account for the last five assessment years ended 31.03.2016 duly certified by the Chartered Accountant, as submitted by the applicant to the Income-Tax Department (Copies to be attached).

	YEARS		
	2013 - 14	2014 - 15	2015 - 16
(i) Gross Annual turn-over in Construction/ Interior Works:			
(ii) Profit (+) or Loss (-)			
(iii) Financial Position:			
Cash			
Current Assets			
Current Liabilities			

Please enclose:

- I. Income Tax Assessment orders/IT Returns submitted for the last 3 years.
- II. Solvency Certificate from Bankers (Scheduled bank) of Applicant.
- III. Audited Balance Sheet and P&L Account for the last 3 years.

SIGNATURE OF APPLICANT(S)

LETTER OF TRANSMITTAL

To
The Regional Manager,
Oriental Insurance Company Limited,
Fourth Floor, UIL Building,
No. 4, Esplanade, Chennai - 600 108.

Sub: Interior, furnishing and Electrical works for Divisional Office No. - 13, at Madhu's Court, Third Floor, Jawaharlal Nehru Road, Vadapalani, Chennai - 600 026.

Sir,

Having examined the details given in pre-qualification Web-Notice and PQ document for the above work, I/We hereby submit the PQ documents (issued / downloaded from web) and other relevant information.

1. I/We hereby certify that all the statements made and information supplied in the enclosed forms A to F and accompanying statements are true and correct.
2. I/We have furnished all information and details necessary for pre-qualification and have no further pertinent information to supply.
3. I/We submit the requisite certified solvency certificate and authorize the Branch Manager, OICL., to approach the Bank issuing the solvency certificate to confirm the correctness thereof. I/We also authorize The Regional Manager, OICL., to approach individuals, employers, firms and corporation to verify our competence and general reputation.
4. I/We submit the following certificates in support of our suitability, technical know-how & capability for having successfully completed the following works.

Sl. No	Name of work	Certificate from

Enclosures:

Seal of applicant

Date of Submission:

Signature(s) of applicant(s)

TECHNICAL SPECIFICATIONS FOR INTERIOR WORKS

Unless specified otherwise and whether specified in the schedule of quantity or not, the contractor shall adhere to following general specification/ guideline for the items of schedule of quantities.

1. All plywood shall be conforming to MR GRADE and IS 303. The plywood so manufactured shall be of Garjan core, shall stand guarantee for borer resistant, termite resistant and Moisture resistant.
2. All solid core flush door shall be conforming to BWR GRADE and IS 2202:1991 (Part I : Fifth revision). The solid core flush door so manufactured shall be of Garjan core, shall stand guarantee for borer resistant termite resistant, Moisture resistant and fungus resistant and shall stand to tests confirming to IS 4020:1998 (Parts 1 to 16)
3. All block boards (only to be used for door shutters of cupboard having height more than three feet) shall be conforming to BWR GRADE and Is 1659:1990 (Third revision, Amendment No. 3). The block board so manufactured shall be of Garjan core, shall stand guarantee for borer resistant, termite resistant, Moisture resistant and fungus resistant and shall stand to tests confirming to IS 4020:1998(Parts 1 to 16)
4. All laminate (provided on all exposed surface) shall be conforming to IS : 2046-1995 and shall be of 1.0 mm in approved regular shade/ of 1.00 mm in approved premium shade and shall be fixed in combination of multiple color, shades as approved.
5. All types of painting to be in two coats of over the levelled and smooth surface so prepared with two/ all required coats of luppum, putty and primer of specified grade for such surface preparations. All inside surfaces of drawers, shutters etc. shall be treated as internal surface.
6. Godrej locks of instructed type shall be provided to all door, storage units, drawer etc.
7. All storage/ side units shall be fixed with box hinges and the drawers shall slide on telescopic channels and all inside surfaces of these shall be fixed with 0.8 mm thick laminate whether specified in the schedule of quantity or not.
8. The design pattern indicated in the tender drawings is tentative only and the final design pattern and the shades of the laminate to be used shall be decided at the site by the Engineer in charge.
9. 12mm thick soft boards shall be used for display board only, duly covered with upholstery costing in a range of Rs. 100.00 to Rs. 125.00 per meter of cloth.
10. All type of work stations i.e. the officer/ clerical tables, counters, work stations etc shall have a foot rest of polished/ painted country wood Of 4" x 1.5" size and a stand for CPU, made with 19mm ply and fixed on adjacent sides. All inside surfaces of these shall be fixed with 0.8mm thick laminate whether specified in the schedule of quantity or not.
11. Wherever specified the working tops shall be laid with float glass cut to shape and edges polished. The position of wire managers shall be cut to shape precisely.
12. Provisions shall be made within the partitions/ Tables/ counters work places wherever necessary to enable conduit for electrical and LAN cabling.

13. Colour pattern on the walls and the ceiling shall be decided by the Engineer in charge.
14. Keyboards of approved quality to be used.
15. For any type of deviation (to any of above or subsequent instructions), contractor has to procure/ obtain the written instruction of the Engineer-in-charge for the purpose otherwise shall not do.
16. Any discrepancy in the site conditions shall be brought to the notice of the Engineer in charge.
17. The contractors shall visit the site and understand themselves the site conditions, the possible working hours and the resources available, etc., before quoting for the tender.
18. The height of the full height partitions shall be considered only till the false ceiling height, irrespective of the fact that the framework has to be fixed to the RCC slab.
19. Average height shall be considered for the surface area measurements of multi-level partitions, storage units and soft boards
20. If the site being working premises, work shall carried out in a phased manner, after the office hours and on holidays. The premises shall be left clean for the daily functioning. No additional cost shall be considered for this factor.

TECHNICAL SPECIFICATIONS FOR ELECTRICAL WORKS

1. GENERAL:

Withstanding the definition of wiring in I.E.E. regulations, 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 lamp 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 rawl plugs, wooden plugs etc., as required.

ii). SIZES OF WIRES:

All wires shall be PYC insulated single core copper 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. of copper respectively using the following colour codes as per standard practices.

Phase - 1	Phase - 2	Phase - 3	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 CORDS:

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 cord. The colour of sheath shall be to Architect's approval.

2. WIRING IN CONDUITS: [FOR EXTERNAL WORK UNDER SUSPENDED CONDITIONS ONLY]

2.1. CONDUITS

- a) Rigid steel conduits shall be of heavy gauge welded black enamelled 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 conform to IS 2509 / 1973 & IS 9537 (part3) / 1983 either threaded or plain type and shall be used with corresponding accessories.

2.2. 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.

2.3. JOINTS IN CONDUITS:

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 anti-corrosive paint shall be provided. Threading shall in all cases be sufficiently long enough [from 11mm to 27mm] long to accommodate pipes to full threaded portions of couplers 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.

2.4. PVC CONDUIT CONNECTIONS: [ALL OTHER CONCEALED WORKS ARE WITH PVC CONDUITS]

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 intervals as 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 of these conduits 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. Diagonal run of conduits shall be avoided as far as possible. 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 where 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 for air conditioning, heaters, refrigerators and such appliances
2. 5 Amps outlets and lighting system
3. Fire alarm system / Telephone system
4. Equipment wiring

2.5. BENDS IN CONDUIT:

Wherever necessary, bends or diversions may be achieved by means of bends / or circular inspection boxes with adequate and suitable inlet and outlet screwed joints. In case of recessed system, each junction box shall be properly secured 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 outside 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. pipe conduits shall be used for outdoor system.

2.6. FIXING OF CONDUITS:

Conduits and junction boxes shall be kept in position while the walls, slabs and floors are under construction/ renovation and proper hold-fasts 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 in such a manner that no damage occurs due to other pipe networks. A conduit shall not come in contact with any wooden members unless otherwise specified. Conduit 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 3 mm X 19 mm galvanized mild steel flat, properly treated with 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 members, 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 situations 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 600 mm apart and the chase filled with cement mortar 1:4. Cutting of horizontal chases in walls is prohibited.

2.7. 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.

2.8. 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 perfect or 3mm thick decorative laminated Hylam/ modular switch and sockets with metal boxes for the base, 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.

2.9. 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.

2.10. 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.

2.11. 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 conduits crossing gas or water pipes, and others, which are liable to mechanical damage, they shall be adequately protected.

2.12. GUIDE WIRE:

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

3.0. WIRING IN CONCEALED CONDUIT

3.1. 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 / Structural 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 are embedded.

3.2. 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.

3.3. The conduit pipe shall be fixed by means of staples or saddles not more than 500mm apart. Fixing of standard bends or elbow shall be avoided as far practicable and all curves maintained by bending the conduit pipe itself with radius long 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.

3.4. INSPECTION BOXES:

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

3.5. TYPES OF ACCESSORIES TO BE USED:

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

3.6. 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.

4.0. WIRING IN SURFACE CONDUITS:

4.1. 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 500 mm on straight runs, with saddles not more than 300 mm 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.

6.0. ARMOURED AND UN-ARMOURED 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 confirm to the relevant I.S. Specification.

b) FIXING ON WALL / CEILING:

PVC insulated, steel tape or wire armoured 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 rowl / Phil plugs.

c) PASSING THROUGH WALL:

A teakwood box extending through the whole thickness of the wall shall be buried in the wall and the cable shall be carried so as to allow 12mm 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 sharp bends, turns or twists on the conductor. The cables should be laid along wall / ceiling in the best workman like manner, so as to give a neat appearance. Excessive 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 Un-armoured 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 standard / conventional practice. Terminations at both ends shall be made with cable lugs.

7.0. 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 /L T panels, 2 nos. of earth bus bars of copper or aluminium of suitable section shall be run on the back side of the panel and earth bus bars and the individual switches shall be interconnected by means of copper or 01 wire of suitable gauge as specified.

b) EARTHING CONDUCTOR:

Earthing conductor shall be of higher conductivity copper or Al or any other suitable approved material to give equivalent conductivity and shall not less than half the largest current carrying conductor or 14 SWG (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 12mm Al pipe recessed in wall and floor where considered necessary and 'carried up to the earth electrode. It shall be fixed over its entire length with 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 12mm GI pipe and funnel shall be provided, the latter being housed in chamber of inner size 300 mm X 300 mm. The resistance of earth electrode shall not exceed 1 Ohms; that of each continuity path from any point with electrode shall not exceed 1 Ohm and that of earthing connection 0.1 Ohm.

8.0. UNDERGROUND CABLES:

a) HIGH / MEDIUM / LOW TENSION:

Cables should be double tape / wire armoured 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 PYC insulated armoured 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 jointer.

b) TRENCH:

All underground cables shall be laid in suitable trenches which shall not be less than 450mm wide and 750 mm below ground level in the case M.V. and L.T. And 1200 mm 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 lines 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 250 mm apart leaving a clear distance of 150 mm 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 from the rollers, and before laid into a trench, should be drawn in straight length. After the cable is laid a 230mm wide duct is to be formed with two well burnt brick laid on the edge one on either side of the cable and bridged by a well burnt brick laid flat on the top supporting bricks on edge, with sand filled in and around the cable. The trench is then filled with excavated earth, laid in layers, watered and consolidated, the surplus earth 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 in two coats, for protection against corrosion, or with 50mm thick RCC slab of suitable size, making done with details of cables and depths at which cables are laid, duly painted on them, shall be provided at ground level

after being suitably embedded in cement concrete (1 :3:6) blocks of 200mm X 200mm X 200mm and spaced at distances of about 30 mts. Centre to centre and in 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 75mm of sand cushioning, the first tier of cable is laid and sand filled in the trench for full width to form a bed of 230 mm above this tier. After this, second cable is laid and the process repeated the top most tier being at least 450 mm below the ground level. The top cable shall be suitable covered with bricks as detailed for the single tier above. When laying 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 diameters, and for multi core cables 10 diameters. and for armoured cable 12 diameters, the diameter 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 pipe sleeves at least 100mm in diameter, which may either of stoneware, steel or spun reinforced concrete. For more than one cable the diameter should not be less than 150 mm. 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 operation and that the joints are in order. Cable of 1.1 K V suitable for low and medium voltage should withstand 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 Contractor shall arrange for having this set right at his cost, including removal of rejected materials, relaying etc.

9.0. RECEPTION AND DISTRIBUTION OF MAIN SUPPLY:

9.1. SWITCH CONTROL AT POINT OF COMMENCEMENT OF SUPPLY:

9.1.1. 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.

9.1.2. The main switch gears shall be easily accessible and shall be situated as near as practicable to the termination of service line.

9.1.3. 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.

9.2.1. LOCATION:

- a) Open type switch boards shall be placed only in dry situations and in well ventilated rooms and they shall not be placed in the vicinity of storage batteries and exposure 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 1250mm above a floor, unless the front of the switch board is located in a position to which only authorized persons have access.
- d) Switch boards shall not be erected above gas stoves or sinks or within 2500mm 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.

9.2.2. 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 bussed. Alternatively, metal boards may be made of suitable size or channel iron frame work suitably mounted on front with 3mm thick MS plates and on back with 1.588 mm MS sheet. In the case of PVC sheathed system of wiring, the top and bottom members may be replaced by 25.4mm 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 31.75 mm between the front sheet shall be provided with suitable hinges.

A teakwood board of thickness not less than 6 mm 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 1000mm in front of the switchboard. A working distance of 1000 mm 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.

9.2.3. 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 16 gauge 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 anti-corrosive primer.

9.2.4. ARRANGEMENT OF APPARATUS / MOUNTINGS:

- a) Equipment which is on the front of a switch Board 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 25mm 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 12mm from any edge of the panel.
- c) Various live parts, unless they are effectively screened by substantial barrier of non-hygroscopic non-inflammable insulating materials shall so spaced that an arc cannot be developed 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.

9.2.5. 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
I 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.

9.3. MAIN AND BRANCH DISTRIBUTION BOARDS:

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

9.3.2. 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.

9.3.3. 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.

9.4. 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.

9.5. 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 9.2) 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 fuses, boards feeding low pressure circuits are fed from supply at medium voltage these distribution boards shall be:
 - 1) Fixed not less than 2000 mm 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.

9.6. 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 number of ways in 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 25 mm 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], a 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 clause 12 ante.

10. PASSING THROUGH WALLS / CEILINGS:

When the conductors pass through walls / ceilings, anyone 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 12mm 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 PYC pipe of such size that it permits easy drawing in. The ends of conduits shall be neatly bushed with PYC, 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 25 mm below the ceiling level and up to a height of 1500 mm above floor level. (Without any extra charges).

11. FIXING TO WALLS AND CEILINGS:

- a) Plugging of walls or ceiling shall be done efficiently and neatly, using approved types of 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 50mm long by 25 mm square on the inner end and 20 mm square on outer end. They shall be cemented into walls within 6 mm 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.

12. 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.

13. FITTINGS AND ACCESSORIES:

All materials used in the construction of fittings shall be of such quality, design and construction that will provided 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.

14. ATTACHMENT OF FITTINGS AND ACCESSORIES:

14.1. 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.

14.2. Groups of accessories and regulators shall be mounted on well seasoned and properly secured teakwood boards of suitable sizes to a 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.

14.3. 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 anti-corrosive preservative or covered with approved plastic compound.

14.4. PROTECTION AGAINST DAMPNESS:

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.

14.5. BENDS IN CONDUITS:

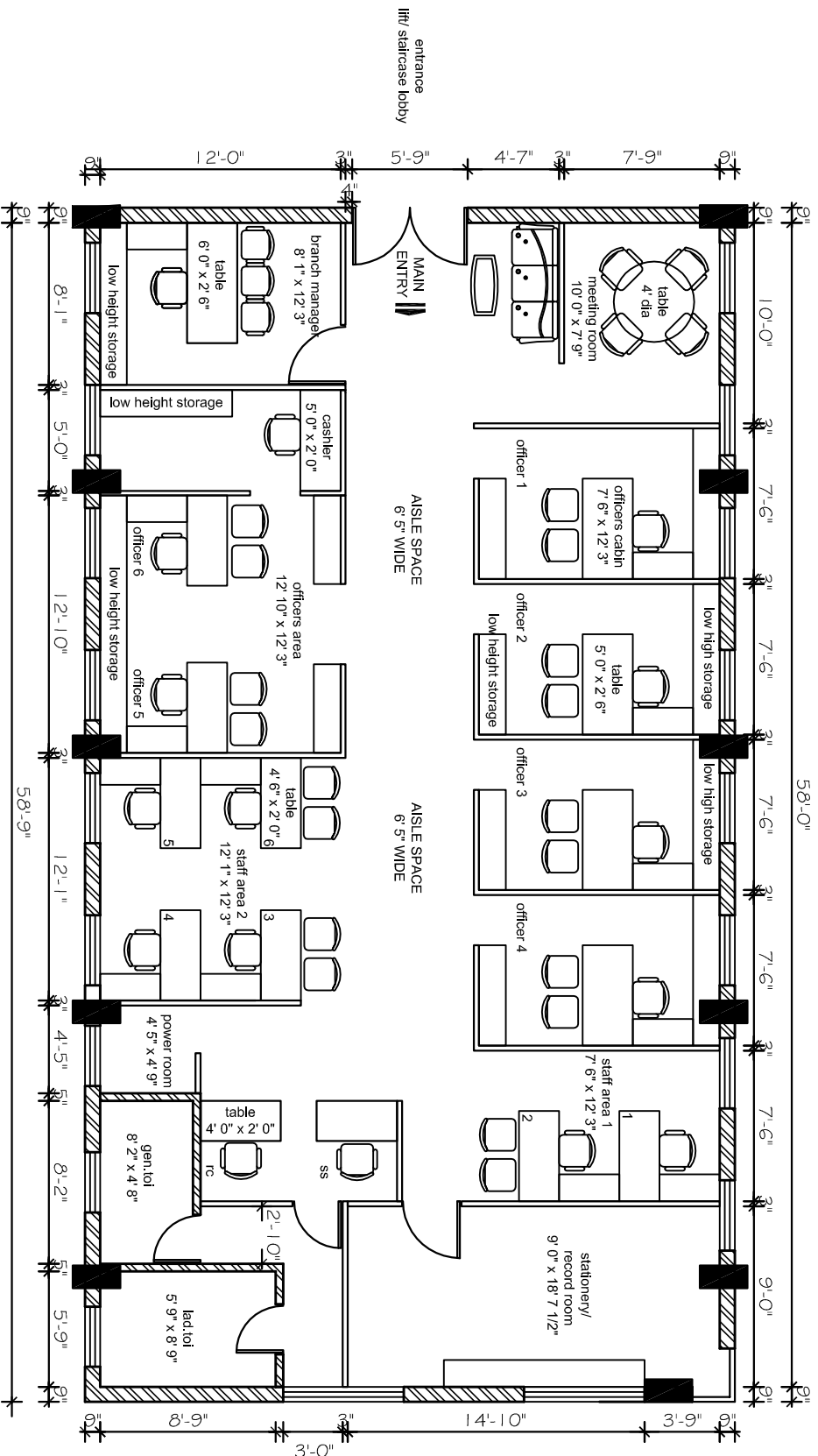
All necessary bends in the system including diversion shall be done by bending pipes or by inserting suitable solid or inspection type normal bends or similar fittings, or fixing M.S. inspection boxes which ever more suitable. Inspection conduit fittings shall be avoided as far as possible on conduit system exposed to weather. Wherever necessary, solid type fittings shall be used. Radius of such bends in conduit pipes shall not be less than 75 mm. 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.

SCHEDULE OF RATES

1. The schedule of rates should be read in conjunction with all the other sections like

drawings, specifications etc.

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 else where 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 "Electrical Drawings" (to be supplied to the contractor).
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 through out the contract period. No escalation on prices of labour and materials shall be entertained.



INTERIOR_LAYOUT

SCHEME NO. - FINAL

PLAN SHOWING THE PROPOSED INTERIOR LAYOUT FOR ORIENTAL INSURANCE COMPANY LIMITED, VADAPALANI BRANCH, CHENNAI.

THIRD FLOOR PLAN	REV NO: 00	DWG NO : OICL_VAD_INT_09_11_2016
SHEET SIZE: A4 : L : 1:8	SCALE : 1" = 8'0"	architect: K.SRIDARAN, MOB. 98412 81968 OFF. 044 - 2239 2533

