

## **Technical Bid**



**Chief Regional Manager, The Oriental Insurance Co. Ltd, Regional office, Madurai** invites sealed tenders in two envelope system i.e. Technical Bid and Financial Bid in respect of proposed **Interior & Electrical Work of RO, Madurai Region.**

The sealed tenders are invited from qualified and eligible contractors for the following works:

### **Interior & Electrical Work**

#### **Details of Project/ Proposed Work:**

Place of work	RO, The Oriental Insurance Co. Ltd, Second floor, Ramalinga Radiance, Door No. 78, TPK Road, Madurai – 625 001
Time of Completion of Work	60 Calendar Days from date of award of contract.
Sale of the Tender Documents	The tender can be downloaded from website: <a href="http://www.orientalinsurance.org.in/">http://www.orientalinsurance.org.in/</a> on A4 size paper. Cost of Tender document is Rs. 1000/- (non refundable) by way of DD should be enclosed with the DD should be enclosed with the Technical Bid. If the cost of tender document is not enclosed along with the document is not enclosed along with the Technical Bid, the Technical Bid will be rejected.
Cost of the Tender documents	Rs. 1000/- (Non refundable) by way of Nationalised Bank

	<b>D.D. favouring 'The Oriental Insurance Co. Ltd Ltd, payable at Madurai'</b> (The name of the firm should be written on the back of the DD)
Date of issue of Tender	<b>From 23.02.2016 to 06.03.2016 between 11 am and 5 pm on any working day at</b> Divisional Office, Bangur Dharmasala Building,  <b>3rd Floor, 6-A, West Veli Street,</b> <b>Madurai 625 001.</b>
Last Date of Submission of Tender	<b>18.03.2016 up to 11.00 am</b>
Date of opening of Technical Bids	<b>18.03.2016 at 3.00 pm</b>

Date of opening of Financial Bids	<b>Will be conveyed later</b>
Authority & Place of Submission of the Tender and opening of Technical & Financial Bids	<b>Chief Regional Manager, The Oriental Insurance Co. Ltd Ltd.,</b> Divisional Office, Bangur Dharmasala Building, <b>3rd Floor, 6-A, West Veli Street,</b> <b>Madurai 625 001</b>

**Proposed Interior & Electrical Work of RO Hub of The Oriental Insurance Co. Ltd, Madurai Region.**

GUIDELINES TO TENDERERS FOR SUBMISSION OF TENDER

- **Note: All the documents, certificates, drawings and all the submission documents should invariably be submitted in A4 Size paper.**

1. Tenderer are advised to visit the site & study the General Conditions, Specifications, Drawings of the contract and the instructions before submission of Tender.
2. If Tender being submitted by a firm or company, it must be signed by each of the partners and in the absence of any of the partner it shall be signed on his behalf by a person holding a Power of Attorney authorizing him to do so. Certified copies of registration certificate Partnership Deed and Power of Attorney will be furnished when the tender is to be considered for acceptance.
3. True copies of documents /Certificates are to be submitted wherever asked for.
4. Every Tenderer shall be expected to have studied the nature of site, scope of works, access of site, local conditions, details of construction, drawings, materials and labour condition as applicable to the works.
5. The Tenderer shall not make any alterations or amendments in the scope of works, specifications and descriptions as incorporated in the Tender Document. **Tender which propose such alterations, additions or conditions of any sort will be liable for rejection.**
6. Tenderer shall quote their most competitive rates for the various items of work by filling in the rates / amounts in appropriate places of **Financial Bid** both in figures and words in English.
7. The Earnest Money Deposit (**EMD**) of **Rs. 1,40,000/-** for Interior & Electrical Work which is payable by the Tenderer only by a **DEMAND DRAFT** payable at **Madurai** and drawn in the favour of '**The Oriental Insurance Co. Ltd, payable at Madurai. The said draft for EMD should be enclosed along with the sealed tender documents of Technical Bid. Tender for which the EMD is not enclosed shall not be considered.** The EMD will be returned to the unsuccessful tenderers after awarding the contract to the successful Tenderer without any interest.

8. **ELIGIBILITY CRITERIA**

- a. The firm/ company should be a duly registered with appropriate authority/ies and should possess valid registration of LBT, Service Tax, Sales Tax (VAT) as on date of application & during the execution of the above said work , if entrusted.
- b. The Tenderer should have experience (of minimum 3 years) of executing Similar types of work i.e. Nationalized Bank or any Govt. undertaking financial institution.
- c. The Tenderer must have executed minimum one or more '**Similar Type Interior furnishing works of Nationalized Bank / Govt. undertaking / Public Sector undertaking only**' of value more than Rs. 30.00 Lacs OR minimum two or more 'Similar Type Interior furnishing works' of value more than 15.00 Lacs during last 3 financial years.
- d. The firm or the supporting Electrical Contractor should be registered **as Govt. 'A' Class Electrical Contractor & should have a Valid Electrical Contractor Licence along with documentary proof of work done as mentioned above.**
- e. LBT, VAT & Service Tax Registration with Proof of returns.
- f. Latest Income Tax Clearance Certificate or proof of having filed returns with Income Tax.
- g. Work Order/s and Work **Completion Certificates** of similar work/s (i.e. Interior Renovation of Nationalized Bank / Govt. undertaking / Public Sector undertaking only) minimum one or more 'Interior furnishing works' of value more

than Rs. 30.00 Lacs OR minimum two or more 'Interior furnishing works' of value more than 15.00 Lacs & above executed and completed during last three financial years only.

- h. EMD of Rs. 1,40,000/- by way of DD only.
- i. Cost of Tender Document of Rs. 1000/- (non refundable) in the form of DD.
- k. The firm should have its registered office in **India**.

#### **9. SECURITY DEPOSIT/ RETENTION MONEY**

Earnest Money Deposit (EMD) of successful tenderer to whom contract is awarded will be transferred to Security Deposit or Retention Money Account. From every bill raised by the contractor and as per guideline of payment schedule, 5% of the bill amount will be deducted and credited to Security Deposit Account. The said amount shall be retained for a defect liability period of 12 months will be returned after defects liability period is over without any interest. If the contractor fails to attend any defect during defect liability period the same work will be attended by the other agency and charges paid to them will be deducted from the Security Deposit or Retention Money.

#### **10. Tenderer is advised to study and observe the following procedure for submission of tenders.**

- A.** It is proposed to follow **TWO BID Tender System** (i.e. Technical Bid & Financial Bid) for proposed work and BIDS should be submitted in the prescribed formats only. (Annexure A & Annexure B).

#### **TECHNICAL BID (ANNEXURE A):**

In **ONE ENVELOPE** duly sealed.

This bid is meant for the technical details of the tenderer who is submitting the Tender.

All the required details/ documents/certificates etc. along with EMD must be attached to the Technical Bid.

#### **FINANCIAL BID (ANNEXURE B):**

In **ONE ENVELOPE** duly sealed.

This bid is meant for offered rate, and amounts of proposed work in detail.

- B.** All the points in the Tender Forms (Technical and Financial Bids) are to be answered clearly and **no separate sheet should be used except for supporting details**. Tenderer is expected to furnish all information required in all TWO Bids. (Annexure A & B) Non-furnishing of required information in any respect may result in rejection of Tender.

**C.** Tenderer should put **full signatures on all the pages** of the Tender Forms.

**D.** Overwriting/ white inking of any word/ figure in the Tender forms, unless duly authenticated by the Tenderer, are liable to be rejected at the option of the Company.

- E.** The Tender should be submitted by Registered Post/ Speed Post/ Recorded delivery/ Courier or can be submitted in person at the office of the Divisional Office, **Bangur Dharmasala**

**Building, 3rd Floor, 6-A, West Veli Street, Madurai 625 001.**

F. Since TWO BID Tender System is being followed, 3 Envelopes should be used for submission of tender as detailed below:

**Envelope “1” for TECHNICAL BID**

- a) Technical Bid duly completed and signed along with all required documents/certificates should be put in this envelope. (Refer the check list of documents to be submitted with Technical Bid)
- b) The envelope should be sealed properly.
- c) The envelope should be super scribed as “**TENDER FOR INTERIOR & ELECTRICAL WORK OF Regional Office Of THE ORIENTAL INSURANCE CO. LTD, Madurai Region**” for Interior Tenderers Name & Address should be written below the superscription.
- d) EMD of Rs. 1,40,000/- by DD of any Nationalised Bank.
- e) Non refundable Tender Cost (Rs. 1000/-) in the form of DD.

**Documents to be enclosed along with Technical Bid**

Non submission of any of the following documents will render Tender submitted by the tenderer as invalid/ liable for rejection. Please enclose following documents in serial order given below;

1. Registration of the firm/ company, if any.
2. The firm or the supporting Electrical Contractor should be registered **as Govt. ‘A’ Class Electrical Contractor & should have a Valid Electrical Contractor Licence along with documentary proof of work done as mentioned above.**
3. LBT, VAT & Service Tax Registration with Proof of returns.
4. Latest Income Tax Clearance Certificate or proof of having filed returns with Income Tax Work Order/s and Work **Completion Certificates** of similar work/s (i.e. Interior Renovation of Nationalized Bank / Govt. undertaking / Public Sector undertaking only) minimum one or more ‘Interior furnishing works’ of value more than Rs. 30.00 Lakhs OR minimum two or more ‘Interior furnishing works’ of value more than 15.00 Lakhs & above executed and completed during last three financial years only.
5. EMD of Rs.1,40,000/- by way of DD only.
6. Cost of Tender Document of Rs. 1000/- (non refundable) in the form of DD.

**Envelope”2” for FINANCIAL BID**

- a) Financial Bid duly completed and signed along with all required documents/certificates should be put in this envelope.
- b) The envelope should be sealed properly.
- c) The envelope should be super scribed as “**TENDER FOR INTERIOR & ELECTRICAL WORK OF THE ORIENTAL INSURANCE CO. LTD, MADURAI REGION** ”.

d) Tenderers Name & Address should be written below the superscription.

**Envelope “3” (Containing above TWO BIDS):**

- a) Technical Bid Envelope and Financial Bid Envelope, prepared as above are to be put in this cover.
- b) The Envelope should be sealed properly.
- c) The Envelope should be super scribed as” **TENDER FOR INTERIOR & ELECTRICAL WORK OF DO-I & TP HUB, THE ORIENTAL INSURANCE CO. LTD,MADURAI REGION.** Tenderers Name & Address should be written below the superscription.

11. Sealed offers prepared in accordance with the procedure enumerated above should be **sent either by Registered Post/ Speed Post/ Recorded Delivery/ Courier or in person and should reach on or before the prescribed time limit of 18.03.2016 up to 11.00 am** to the Address **‘The Oriental Insurance Co. Ltd, Divisional Office, Bangur Dharmasala Building, 3rd Floor, 6-A, West Veli Street, Madurai 625 001 . Any Tender received after the specified date and time will be rejected.**

12. The Technical Bid will be opened and after evaluation and a short list will be prepared of those tenderer who fulfill all the requirements of Tender Documents/ Technical Bid & are found eligible for opening their financial bid. **The Financial Bid of only those short-listed Tenderers will be opened.**

13. The Company reserves the right to reject any or all Tenders without assigning any reasons thereof.

Selected contractor should have a local set up (either permanent or temporary for particular project) throughout the project completion period.

The entire work would be carried out as per the design and details prepared by our **Architect N.M.S. SHIYAM, B.Arch., Madurai’** and under their overall supervision.

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## FORWARDING LETTER

Note: - Tender to be submitted on or before 11.00 am **on 18.03.2016**.

To

**The Oriental Insurance Co. Ltd,**  
Divisional Office, **Bangur Dharmasala Building,**  
**3rd Floor, 6-A, West Veli Street,**  
**Madurai 625 001**

From

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

**Sub: Tender for the Interior & Electrical Work of RO Hub of The Oriental Insurance Co. Ltd, Madurai Region.**

Dear Sir,

With reference to the tender invited by you for above mentioned work, I / we here by offer to execute the items of work specified in the Schedule - B I / we have examined and studied carefully all the drawings, specifications, conditions of contract, site and agree to comply with them. I / we agree to complete the whole work within the stipulated time from the date of work order. I / we are aware that any of schedule - B items/s can be canceled or replaced and quantity of any of items can be increased or decreased at any time by the Architect OR Owner, for which I/ we shall not claim extra.

Yours Faithfully

**Contractor's Signature**  
**(With Stamp & Address)**



## NOTICE TO TENDERERS:

1. Sealed tenders should be addressed to **The Oriental Insurance Co. Ltd**, Divisional Office, **Bangur Dharmasala Building, 3rd Floor, 6-A, West Veli Street, Madurai 625 001** and super scribed as **“TENDER FOR Interior & Electrical Work of RO Hub, Madurai Region** and sent as to reach this office **not later than 11.00 am on 18.03.2016**. Tender should be accompanied with **Earnest Money Deposit (EMD) of Rs. 1,40,000=00 (Rupees one lac forty thousand only)** in the form of **Demand Draft in favour of The Oriental Insurance Co. Ltd payable at Madurai**. Tenders not accompanied with EMD shall be rejected and considered invalid. The earnest money shall be returned to the tenderer if the tender is not accepted but without any interest. EMD amount deposited by the tenderer, whose tender is accepted, shall be adjusted towards security deposit to be retained by the Company for one year.
2. No tender will be received after 11.**00 am** on **18.03.2016**.
3. Technical bid will be opened at Regional Office **on 18.03.2016 at 3.00 PM** by the Chief Regional Manager or his nominee. The rates tendered by the contractors shall be valid for acceptance for minimum 90 days from the date of opening. **The Regional Manager, Regional Office, The Oriental Insurance Co. Ltd, Madurai Region** does not bind himself to accept the lowest or any tender and reserves the right to accept or reject any or all the tenders whether in whole or in part without assigning any reason for doing so. The owner reserves his rights to negotiate with the lowest or any other tender/s.
4. Each of the tender documents is required to be signed by the person or persons submitting the tender in token of his/ their having acquired himself/ themselves with the general conditions, articles of agreement, mode of measurements, schedule of probable quantities, site conditions and the time schedule etc. as laid down. Any tender with any of the documents not signed will be liable to be rejected.
5. Tenderer shall fill in rates for all items of work described in the Schedule -B. All entries must be made by hand and in ink. **The rates quoted for the items shall compulsorily be in “Figure” & “Words” in English**. In the event of discrepancy between the rates quoted in figures & words, the rates quoted in words, shall be binding. **Tender not quoted in above said manner will be refused and will not be considered**. Items against which no rate is entered by the tenderer will not be paid for by the Owner when executed and shall be deemed covered by the other rates in the Schedule-B. If any of the documents is missing or unsigned the tender shall be considered invalid.
6. All erasures and alterations made while filling the tender must be attested with initials of the tenderer. Overwriting of figures is not permitted. Failure to comply with either of these conditions will render the tender invalid.
7. All the pages of the tender documents should be signed by the tenderer.
8. The security deposit shall be kept with the Company for a period of 12 months after the Architect issues the completion certificate which amount is not to bear interest.
9. The rates quoted by the contractor should include all charges for scaffolding materials labour, hire for any tools, marking out and clearing of the site as mentioned in the specifications. The rate quoted by the tenderer in the Schedule-B of probable quantities will be deemed to be for the finished work to be measured at site. The rates shall be inclusive of all service tax, sales tax, octroi duty; works contract tax, Provident Fund, Insurance etc. levied by any Government or any public body. The contractor shall abide by the rules of Minimum Wage Act and Child Labour Act and keep the owner indemnified regarding the same. The contractor should take necessary insurance for the work as required under the workman compensation act, labour laws etc. as prevailing.
10. The rate shall be binding to the Contractor, for all the tender items till the completion of

the work respective of variation in market rates of material and labour.

12. The calculations made by the tenderer should be based upon probable quantities of the several items of work, which are furnished for the tenderers convenience in the schedule B. It must be clearly understood that the contract is not a lump-sum contract that neither the probable quantities nor value of the individual and the aggregate value of the entire tender will form a part of the contract and that Architect doesn't in any way assure the tenderer or guarantee that the said probable quantities are correct or that the work would correspond thereto.
13. The items against which no quantity is shown in schedule -B for which tenderer is to quote his rates and the Owner at his description shall ask the contractor to execute those items if required and which shall be binding on the part of the contractor to execute those items at the rates quoted therein in the tender.
14. The successful tenderer should make their own arrangements to obtain all materials required for the work.
15. The various materials stored on site shall be protected from the fire, floods or rains etc. and the contractor shall be responsible for any damage caused to the owner for the same.
16. The contractor shall allow enough facilities to the sub-contractors employed by the owner and should co-operate with them and that small holes etc. made by these sub-contractors to the structure shall be properly corrected by the general contractor without any prejudice and extra cost whatsoever.
17. The bills shall be prepared by the contractor in the manner required by the Architect and should be submitted to him. All payments by the owner under this contract shall be made at .
18. The specifications that are not mentioned or listed in the tender shall conform to I.S.I. Specifications while having prior written consent of the Architect.
19. In case of dispute regarding quality of material, workmanship etc. shall be settled and accepted as final decision on the basis of test reports obtained from Institute of Technology, .
20. The contract shall be subject to **Madurai** jurisdiction only.
21. The Architect reserves the right to deduct such amounts as he may feel proper on account of bad workmanship as penalty and that his decision in such matters shall be binding to both the parties and shall not be subject to arbitration. In case the contractor's progress of work is not satisfactory or his workmanship is not to the standard quality, the architect and/or owner reserve the right to issue necessary notice to the contractor, for carrying out timely progress. If however the contractor has not improved the progress, the architect and/ or owner can release the contractor from his work and terminate the contract after issuing seven days notice.
22. The owner reserves the right to omit any item or items or part thereof for which contractor shall not claim any compensation whatsoever.
23. The Architect reserves the right to deduct such amounts as he may feel proper on account of bad workmanship as penalty and that his decision in such matters shall be binding to both the parties and shall not be subject to arbitration. In case the contractor's progress of work is not satisfactory or his workmanship is not to the standard quality, the architect and/or owner reserve the right to issue necessary notice to the contractor, for carrying out timely progress. If however the contractor has not improved the progress, the architect and/ or owner can release the contractor from his work and terminate the contract after issuing seven days notice.

24. The owner reserves the right to omit any item or items or part thereof for which contractor shall not claim any compensation whatsoever.

**25. Contractor must inform in writing to the Architect before executing any work that is not covered in Tender or any quantities of the tendered item that are increasing while executing the work. Prior permission from the Owner shall be obtained before executing any such item.**

26. The Architects for this work is **N.M.S. SHIYAM, B.Arch., No.188, East Veli Street, Madurai'** (Mobile: + 91 – 98421 92266) and the architect reserves the right to deduct such amounts as he may feel proper on account of bad workmanship as penalty and that his decision in such matters shall be binding to both the parties and shall not be subject to arbitration.

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

Date:

Seal

**Signature of the tenderer**

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Space for office use:

**Tenderer Seal**

## **AGREEMENT**

1. THIS AGREEMENT made on the \_\_\_\_\_ day of \_\_\_\_\_ 2016 between \_\_\_\_\_ (hereinafter referred to as "Contractor" which expression shall unless repugnant to the context or meaning there of deemed to include its/ his legal heirs, executors, administration and assign of the one part and **CRM, The Oriental Insurance Co. Ltd, Regional Office, Madurai.** (Hereinafter referred to as the Employer.) which expression shall unless repugnant to the context or meaning thereof be deemed to include is successor and assigns of the other part.
2. WHEREAS the said employer is desirous to carrying out **Interior Furnishing Work for The Oriental Insurance Co. Ltd, RO, Madurai Region** hereinafter the aforesaid work are collectively referred to as "**the work**"
3. WHEREAS the said works are more particularly described in contract document consisting plans, specification, schedule of quantities of various classes of works to be done and set of conditions of contract to be complied with by the contractor are annexed herewith as part and partial of thus agreement. The parties to the contract agree to abide by the same.
4. WHEREAS the Employer has invited the tender and the contractor has also given his tender which was opened on 19.03.2016 and it has been accepted by the CRM, The Oriental Insurance Co. Ltd, Regional Office, Madurai vide letter no. \_\_\_\_\_ Dated \_\_\_\_\_.

### **NOW IT IS HEREBY AS FOLLOWS;**

5. WHEREAS in consideration of payment to be made to the contractor as hereinafter provided, the contractor shall upon and subject to the set of conditions described in the Contractual document, execute and complete the works as shown in the said plan, drawings, complete specification, schedule of quantities of various classes of works to be done and such further detailed drawings plan and specification as may be furnished/ provided to him by the said employer and described in the said specification and on the said price of schedule of quantities.
6. The Office Head of the Employer shall exercise power on behalf of the said employer for the purpose of this contract agreement.
7. WHEREAS both the parties agree to sign the following annexure annexed to this agreement in token of their acceptance.
  - (a) General Condition of Contract.
  - (b) Safety Mode
  - (c) Model Rule for protection of health and sanitary arrangement for workers.
  - (d) Specification for Civil Work.
  - (e) Abstract of Cost.
8. The Company shall pay the contractor such sums as shall become payable hereunder the works within 60 days from the date of written orders to commence the works are given to the contractor. The contractor agrees and has deposited 2 % of the accepted tender amount by way of initial security deposit for due fulfillment of the contract for the works. It is agreed that the security deposit shall be deducted from each running bills as per clause-11 and refunded to the contractor as per clause -11 collected by the contractor as details of the General condition of the contract Annexed herewith.

9. WHEREAS it is agreed that the Earnest Money amounting to **Rs.1,40,000.00** deposited by the contractor in the form of Demand Draft along with the tender shall be forfeited in full in case contractor does not remit the initial security deposit within the stipulated period of start the works by the stipulated date mentioned in the award letter.

10 WHEREAS Shri. \_\_\_\_\_ is the accredited representative(s) of the contractor who would be responsible for taking instruction from the Employer and the architect in relation to the works. The contractor agrees to pay sales tax, income tax or any other taxes on material or on finished works like works contract tax, turnover tax etc. in respect of this contract of the works and the employer will not entertain any claim whatsoever in this respect, nor the employer shall be responsible to pay taxes as mentioned above. If due to non payment of any of the aforesaid tax or other taxes connected with the works, the contractor suffers any loss or damage or delay in completing the works, the employer shall not responsible for any such loss or damage occurred to the contractor, and the employer will be entitled to claim damages from the contractor for non completion of the works within 60 days as stipulated in Para 4 as aforesaid.

11. WHEREAS the contractor hereby declares the list of all relatives working with the employer which is annexed herewith and marked C-1 OR WHEREAS the contractor declares that none of his relative is working with the employer,

12. The plans, details, diagram specification, contract document and the document above mentioned shall form basis of this contract and decision of The Office Head from the time being as mentioned in the conditions of contract in reference to all matters

13. The works comprises the furnishing of the branch and all subsidiary and others works connected therewith on the same site as may be ordered to be done from time to time by the said Office Head for the time being even though such works may not have been shown on the drawings plans or described in the said specification or schedules of various classes of works to be done.

14. The employer reserves to himself the right of altering the plans, drawings and the nature of works and of adding to or omitting any item of works or having portions of the same carried out departmentally or otherwise and such alteration or variation shall be carried out without prejudice to this contract.

15. All disputes arising out of or in any way connected with this agreement shall be deemed to have arisen in Madurai and only the courts of Madurai shall have to be jurisdiction to determine the same.

16. That in case of dispute between the Architect and the Contractor, the company may decide to take over the project and get the work executed either through newly appointed architect or by appointing an officer (Project Manager). In such case all the power vested in Architect shall get automatically transferred to newly appointed Architect/ Project Manager as the case may be.

The several part of this agreement has been read to us fully understood by us.

IN WITNESS where of the parties above mentioned executed these presence today and year here in above written.

Signed, Sealed and delivered by:

**Authorized Representative  
of Contractor**

**Authorized Representative of  
the Employer**

Date:

Place:

## **GENERAL CONDITIONS OF THE CONTRACT**

Except where provided for in the description of the individual item in the schedule of quantities and in the specification and condition laid down hereinafter and in Drawings, the work shall be carried out as per C.P.W.D. standard specifications and according to the nomenclature of each item as mentioned in the 'G' schedule attached..

### **1. Interpretation**

In construing this conditions, the specification, the schedule of quantities, tender and Agreement, the following word shall have the meaning herein assigned to them except where the subject or context otherwise requires;

i) **Employer:** The term Employer shall denote **CRM, The Oriental Insurance Co. Ltd, Regional Office, Madurai** and any of its employee representative authorized on their behalf.

ii) **Architects / Consultants:** The term architect shall mean **N.M.S. SHIYAM, B.Arch., No.188, East Veli Street, Madurai** or in the event of his / their ceasing to be Architect for the purpose of this contract such other person/s as Employer shall nominate for the purpose. The Architect with the approval of Company may engage a local Architect / Consulting Engineer for supervision and co-ordination of the work at the site. He will be considered a representative of the Architect. The Company may also engage a Project Company Consultant for the supervision of work. He will be designated by the term PMC and work as employer's agent at the site.

iii) **Contractor:** The term contractor shall mean

\_\_\_\_\_  
(Name and address of the contractor) and his / their heirs, legal representative, assign and successors.

iv) **Site :** The site shall mean the site where the work are to be executed as shown within the boundary in red border on the site plan including any building and erections thereon allotted by the Employer for the contractor use.

v) **Drawings: The work is to be carried out in accordance with the drawings, specification, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Employer during the execution of work.**

All drawings relating to work given to contractor together with a copy of schedule of quantities are to be kept at site and the Employer /Architect shall be given access to such drawings or schedule of quantities whenever necessary.

In case any detailed drawing are necessary contractor shall prepare such detailed drawing and / or dimensional sketches therefore and have it confirmed by the Employer/ Architects as case may be prior to taking up such work. The Contractor shall ask in writing for all clarification on matter occurring anywhere in drawings, specification and schedule of quantities or to additional instructions at least 2 days ahead from the time when it is required for implementation so that the employer may be able to given decision there on.

vi) "The Works" shall mean the work or works to be executed or done under this contract.

vii) "Act of insolvency" shall mean any act such as defined by the presidency Towns Insolvency Act or in Provincial Insolvency Act or any amending statutes.

viii) "The schedule of quantities" shall mean the schedule of quantities as specified and forming part of contract.

ix) "Priced Schedule of Quantities" shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.

## 2. Scope

*The work consists of* **INTERIOR & FURNITURE WORK FOR REGIONAL OFFICE OF THE ORIENTAL INSURANCE CO. LTD, MADURAI REGION** in accordance with the "drawing" and "Schedule of Quantities". The Civil, sanitary, plumbing etc., are within the scope of this tender. It includes furnishing all materials, labour, tools and equipment and Company necessary for and incidental to the construction and completion of the work. All work, during its progress and upon completion, shall conform to the lines, elevation and grades as shown on the drawing furnished by the Employer / Architect. Should any details essential for efficient completion of the work be omitted from the drawing and specifications it shall be the responsibility of contractor to inform the Employer/ Architect and to furnish and install such details with Employer's/ Architect concurrence, so that upon completion of the proposed work the same will be acceptable and ready for use.

Employer or Architect may in their absolute right issue further drawings and/ or written instruction, detail, direction and explanations, which are, hereafter collectively referred to as "The Employer's/ Architects Instruction" 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 drawing or between the schedule of quantities and/ or drawing and / or specification.
- c) The removal from the site of any defective material brought thereon by the contractor and the substitution of any material thereof.
- d) The demolition removal and / or re-execution of any work executed by the contractor/s.
- e) The dismissal from the work of any person employed there upon.
- f) The opening up for the inspection of any work covered up.
- g) The rectification and making good of any defect under clauses hereinafter mentioned and those arising during the maintenance period (retention period).

The Contractor shall forthwith comply with and duly execute any work comprised in such employer's or Architect's instruction's, provided always that verbal instructions, direction and explanations given to contractor's or his representative upon the work by employer or Architect 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 up without written permission of the Employer or Architect. Rates of items not mentioned in the priced schedule of the quantities shall be fixed by the Employer in consultation with the Architect as provided in Clause "Variation"

If required the Contractor shall set up a field laboratory with necessary equipments for day to day testing of material like grading of coarse and fine aggregates, silt content and bulk age of sand etc.

## 3. Tenderer shall visit the site

Intending tenderer shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirement of the works, facilities of transport condition, effective labour and material, access and storage for materials and removals of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for special difficulties and 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 compensation for difficulties faced or losses incurred on account of any site condition which existed before the commencement of work or which in the opinion the employer or Architect might be deemed to have reasonably been inferred to be so existing before commencement of work.

#### 4. Tenders

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

The schedule of quantities shall be filled in as follows:

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

No modifications, writing or corrections can be made in the tender paper by the tenderer

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

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

**The work will be paid for as "measured work" on the basis of actual work done and not as "lump sum" contract, unless otherwise specified.**

All the item of work described in the schedule of quantities are to be deemed and paid as complete work in all respect and details including preparatory and finishing works involved, directly, **related to and reasonably detectable from the drawing**, specification and schedule of quantities and no further extra charges will be allowed in this connection. In the case of Lump-sum charges in the tender in respect of any items of work, the payment of such item 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 Employer /Architects.

The Employer has power to add to, omit form any work as shown in drawing or described in specification or included in schedule of quantities and intimate the same in writing but no addition, omission or variation shall be made by the contractor without authorization from the Employer. No variation shall vitiate the contract. Please also refer to para 9 hereinafter.

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

#### 5. AGREEMENT.

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

#### 6. PERMIT AND LICENSE

The contractor will arrange the Permit and License for release of materials that are under Government control. The Employer will render necessary assistance, sign any form or application that may be necessary. The basic price of controlled material, if any, for the purpose of valuing the tender, is to be considered as stipulated below. This will also be the basis of adjustment in setting the contractor's bills.



The contractor shall at his own cost arrange for storage shed adequate for taking delivery and storing of the quantity of controlled material released by the authorities or supplied by the Employer. The costs of storing, transporting etc. of all materials including those under Govt. Control are to be included by the tenderer in his quote rates. No extra or separate rate will be claimed for this.

The Employer/ Architect shall be indemnified against all Government or legal action for theft or misuse of cement M.S. rods, furnishing material and any controlled materials in the custody of the contractor.

#### **7. GOVERNMENT AND LOCAL RULES.**

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

#### **8. TAXES AND DUTIES**

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

#### **9. QUANTITY OF WORK TO BE EXECUTED**

The quantities shown in the schedule of quantities are intended to cover the entire new structure indicated in the drawings but the Employer reserves the right to execute only a part or the whole or any excess there of without assigning any reason.

#### **10. OTHER PERSON ENGAGED BY THE EMPLOYER**

The Employer reserve the right to execute any part of the work included in this contract by other Agency or persons and contractor shall allow all reasonable facilities and use of its scaffolding for the execution of such work. The main contractor shall extend all cooperation in this regard

#### **11. EARNEST MONEY AND SECURITY DEPOSIT.**

The Tenderer will have to deposit an amount of **Rs.1,40,000.00** in the form Bank Draft drawn in favour of **The Oriental Insurance Co. Ltd, payable at Madurai** at the time of submission of tender as an earnest Money. The Employer is not liable to pay any interest on the Earnest Money. The Earnest Money of the unsuccessful tenderer 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 accepted tender including the Earnest Money. The initial Security Deposit will have to be made within 02 days from the date of acceptance of tender, failing which the employer at his discretion may revoke the letter of acceptance and forfeit the Earnest Money Deposit furnished along with the tender.

Apart from the Initial security Deposit made as above, retention money shall be

deducted from progressive running bills @ 5% of the gross value of each running bill until the total security Deposit, i.e., the initial Security Deposit plus the retention money equals total 5% of the final bill amount as certified by the architect.

The retention amount will be refunded to the contractor 14 (fourteen) days after the end of defects liability period provided he has satisfactorily carried out all the work and attended to all defects in accordance with the conditions of contract. No interest is allowed on retention money.

## **12. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY**

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

The rates quoted against individual item will be inclusive of everything necessary to complete the said item of work with in the contemplation of the contract, and beyond the unit price no extra payment will be allowed for the incidental or contingent work, labour and / or material inclusive of all taxes and duties whatsoever except for the specific item, 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 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 road, streets, wall, houses, building, all other erection, matter and thing and the contractor shall take down and remove any or all such centering, scaffolding, planking, timbering, strutting, shoring etc. as occasion shall be required or when ordered so to do, and shall fully reinstate and make good all matters and things distributed during the execution of works to the satisfaction of the Employer / Architect.

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

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

## **13. TIME OF COMPLETION:**

Time of Completion: The entire work is to be completed in all respects within the stipulated period. The work shall be deemed to be commenced with in Seven days from the date of acceptance letter of date of handing over of site, which ever is later. Time is the essence of the contract and shall be strictly observed by the contractor.

The work shall not be considered as complete until the Architect has certified in writing that this

has been completed and the defects Liability Period shall commence from the date of such certificate.

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

#### **LIQUIDATED DAMAGES:**

Should the work be not completed to the satisfaction of the Employer/ Architects within the stipulated period, the contractor shall be bound to pay to the Employer a sum of Rs. 500/- Per Day by way of liquidated damages and not as penalty during which the work remains uncommenced or unfurnished after the expiry of the completion date.

#### **15. TOOLS, STORAGE OF MATERIALS, PROTECTIVE WORKS AND SITE OFFICE REQUIREMENTS.**

**16.** The Contractor shall provide, fix up and maintain in an approved position proper office accommodation for the contractor's representative and staff which offices shall be open at all reasonable hours to receive instruction notices or communications and clear away on completion of the works and make good all work distributed. All drawing maintained on the site are to be carefully mounted on boards of appropriate size and covered with a coat of approved varnish. They are to be protected from ravages of termites, ants and other insects.

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

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

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

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

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

**Protective Measures:** The contractor from time the time of being placed in possession of the site make suitable arrangement for watching, lighting and protecting the work, the site and surrounding property by day, by night, on Sunday and other holidays.

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

The contractor shall provide necessary temporary enclosures, gates, entrance etc. for the protection of the work and materials and for altering and adopting the same as may be required

and removing on completion of the work and making good all work distributed.

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

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

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

The mistries and the supervisors on the works shall carry with them always a three meter steel tape, a measuring tape of 30 meters, a spirit level, a plumb bob and a square and shall check the work to see that the work is being done according to the drawing and specification. The site engineer will use or any or all measuring instruments or tools belonging to the contractor as he chooses for checking the works executed or being executed on the contract.

The contractor should cover in his rates for making provisions for all reasonable facilities for the use of his scaffolding, tools and plant etc., by sub contractors for their work.

#### **17. NOTICE AND PATENTS OF APPROPRIATE AUTHORITY AND OWNERS.**

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

The contractor/s shall arrange to give the notices required for by the said Acts, Regulation or Bye Laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipt with the Employer.

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

#### **18. CLEARING SITE AND SETTING OUT WORKS.**

The site shown on the plan shall be cleared of all obstruction, loose stone and material rubbish of all kinds. All holes or hollows whether originally existing or produced by removal or loose stone or material shall be carefully filled up with earth well rammed and leveled off as directed at his own cost.

The contractor shall set out the works and shall be responsible for the true and perfect setting out of the work and for correctness of the positions, levels, dimension and alignment of all parts thereof. If at any time, any error shall appear during the progress of any part of the work the contractor shall at his own expenses rectify such error, if called upon to the satisfaction of the Employer. The contractor shall further set out works to alternative position at site until one is finally approved and rates coated in his tender should include for this and no extra on this account will be entertained.

#### **19. BENCHES**

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

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

## **20. CONTRACTOR IMMEDIATELY TO REMOVE ALL OFFENSIVE MATTERS**

All soils, filth or other matter of any offensive nature taken out of any trench, sewer, drain, cesspool or other places shall not be deposited on the surface but shall be at once carted away by the contractor to place provided by him.

The contractor shall keep the foundations and works free from water and shall provide and maintain at his own expenses electrically or other power driven pumps and other plants to the satisfaction of the

Employer for the purpose, until the building is handed over to the Employer. The contractor shall arrange for the disposal of water so accumulated to the satisfaction of the Employer and the local authority and no claim will be entertained afterwards if he does not include in his rates for the purpose.

## **21. ACCESS**

Any authorized representative of the Employer shall at all reasonable time have free access to the works and /or to the workshop, factories or other places where materials are being prepared or constructed for the work and also to any place where the materials are lying or from where they are being obtained, and the contractor shall give every facility to the company or their representative necessary for the inspection and examination and test of the materials and workmanship. Except the representative of the Employer no person shall be allowed at any time without the written permission of the Employer.

## **22. MATERIAL, WORKMANSHIP, SAMPLES TEXTING OF MATERIALS**

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

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

All the materials (except where otherwise described) store not 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 best of their kind available and the contractor /s must be entirely responsible for the proper and efficient carrying out of the work. The work must be done in the best workmanlike manner. Samples of all materials to be used must be submitted to the Employer / architect when so directed by the Engineer / Architect must be obtained prior to placement of order.

During the inclement weather the contractor shall suspend concreting and plastering for such time as the Employer / Architect may direct and shall protect from injury all work when in course of execution. Any damage (during construction) to any part of the work for any reason 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, strikes, lock-outs or any other cause, the contractor shall take all precaution necessary for the protection of work and his own expenses shall make good damages arising from any of these causes.

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

### **23. REMOVAL OF IMPROPER WORK**

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

### **24. CONTRACTOR'S EMPLOYEE**

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

PF / ESI liability shall be to the account of the Contractor, he has to submit compliance of the same to THE ORIENTAL INSURANCE CO. LTD MADURAI REGIONAL OFFICE before claiming final payment.

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

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

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

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

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

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

The contractor shall keep the Employer saved harmless and indemnified of any health officer of the state or any local authority or of the Employer regarding the maintenance of proper environmental sanitation are the area where the contractor's labourers are housed or accommodated, for the prevention smallpox, 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 labour engaged on the works. He shall within 24 hours of the occurrence of any accident at or about the site or in connection with the execution of the works, reports such accident to the Employer and also to the Competent Authority where such report is required by law.

#### **24. DISMISSAL OF WORKMENS**

The contractor on the request of the Employer immediately dismiss from works any person employed thereon by him, who may in the opinion of the Employer be unsuitable or incompetent or who may misconduct himself. Such discharge shall not be the basis of any claim for compensation or damages against the Employer or any of their officers or employee.

#### **25. ASSIGNMENT.**

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

#### **26. DAMAGE TO PERSON AND PROPERTY INSURANCE ETC.**

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

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

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

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

#### **27. INSURANCE**

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

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

#### **28. ACCOUNTS RECEIPTS & VOUCHERS**

The contractor shall, upon the request of the Employer furnish them with all the invoices, accounts, receipts and other vouchers that they may require in connection with the works under this contract. If the contractor shall use the material less than what he is required under the contract, the value of the



difference in the quantity of the materials he was required to use and that he actually used shall be deducted from his dues. The decision of the Employer 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.

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

### **30. PAYMENT**

All bills shall be prepared by the contractor in the form of prescribed by the Employer/ Architects. Normally one interim bill shall be prepared each month subject to minimum value for interim certificate as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurement in support of the quantities of work done and must show deduction for all previous payment, retention money etc.

The Architect shall issue certificate after due scrutiny of the Contractor's bill stating the amount due to the contractor from the Employer and the contractor shall be entitled to the payment thereof, within the period of honoring certificates named in these documents. In case of delay due to some reason in the processing of such bills for payment, an ad-hoc advance of 75 % of the billed amount may be paid on the request of the contractor for the smooth progress of the work. The amount stated in the interim certificate shall be total value of work properly executed and 75% of invoice value of materials brought to site for the permanent incorporation into the work up to the date of the bill less the amount to be retained by the Employer as retention money vide clause 12 of these conditions and less installments previously paid under the conditions, provided that certificates shall only include the value said materials and goods as and from such time as they are reasonably, properly and prematurely brought to or placed adjacent to the work and then only if adequately projected against weather or other casualties.

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

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

All the interim payment shall be regarded as payment by way of advance against the final payment and only not as payment for work actually done and completed and shall not preclude the requiring of bad , unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, 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 accruing of any claim, not shall, it conclude, determine or affect in any way the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affects the contracts. The final bill shall be submitted by the contractors within one month of the date fixed for completion of work or of the date of certificate of completion furnished by the site Engineer and payment shall be made within three months.

#### **Final Payment**

The final bill shall be accompanied by a certificate of completion by the Architect. Payment of the final bill shall be made after deduction of Retention money as specified in Clause 12 of these conditions, which sum shall be refunded after the completion of the Defects Liability period after receiving the Architect's certificate that the contractor has rectified all defects to the satisfaction of the Employer/ Architects. 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.

### **31. SUBSTITUTION**

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

### **32. PREPARATION OF WORKS CARRIED OUT FOR OCCUPATION AND USE ON COMPLETION**

The whole of the work will be thoroughly inspected by the contractor and deficiencies and defects put right. On completion of such inspection the contractor shall inform the Employer that he has completed the work and it is ready for inspection. On completion the contractor shall clean all windows and doors including the cleaning and oiling if necessary, of all hardware, inside and outside, all floors, staircase and every part of the building. He will leave the entire building neat and clean and ready for immediate occupation and to the satisfaction of the Employer.

### **33. CLEARING SITE ON COMPLETION**

On completion of the works the contractor shall clear away and remove from the site all constructional equipment's, plant and machinery, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in workman like conditions to the satisfaction of the Employer/ Architects.

### **34. DEFECTS AFTER COMPLETION.**

The contractor shall make good at his own cost and to satisfaction of the Employer/ the Architect, all defects, shrinkage settlement or other faults, which may appear within 12 months after completion of the work .In default, the employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent there on or incidental there to shall be made good and borne by the contractor and such damages, losses and expenses shall be recoverable from him by the Employer or may be deducted by the Employer, in lieu of such amending and making good by the contractor, and deduct any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient, recover that balance from the contractor from the amount retained under clause no. 11 together with any expenses the Employer may have incurred in connection therewith.

### **35. CONCEALED WORK.**

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

### **36. 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, sales tax, octroi, etc. No escalation shall be allowed on account of ANY reason whatsoever.

### **37. IDLE LABOUR**

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

### **38. SUSPENSION**

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

After such notice shall have been given the contractor shall not be at liberty to remove from the site of the works or from any ground contiguous thereto any plant or material 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 proceed with the works as therein prescribed, the Employer may proceed as provided in clause 43 (termination of contract by Employer)

### **39. TERMINATION OF CONTRACT BY EMPLOYER**

If the contractor being a company go into liquidation whether voluntary or compulsory or being a firm shall be dissolved or being an individual shall be adjudicated insolvent or shall make an assignment or a composition for the benefit of the greater part, in number of amount of his creditors or shall enter

into a Deed or 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 employer that he is able to carry out and fulfill the contract, and if so required by the employer to give reasonable security therefore, or if the contractor shall suffer execution to be issued, or shall sufferance payment under this contract to be attached by or on behalf of and of creditors of the contractor, or shall assign, charges 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 contractors within three clear days after the notice shall have been given to the contractor in manner hereinafter mentioned requiring the contractor to observe or perform the same or shall use improper materials or workmanship in carrying on the work , or shall in the opinion of the Employer not exercise such due diligence and make such due progress as would enable the wok to be completed within due time agreed upon, and shall fail to proceed to the satisfaction of the Employer after three clear days notice requiring the contractor so to do shall have been given to contractor as hereinafter mentioned, or shall abandon the contract , then and in any of the said cases, the Company may notwithstanding previous waiver determine the contract by a notice in writing to the effect as hereinafter mentioned, but without thereby effecting the powers of the Employer of the obligations and 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 the or on behalf of the contractor (without thereby creating any trust in favour of contractor) further the Employer or his agent , or servants , may enter upon and take the possession of the work and all plants, tools, scaffoldings, shades, machinery, steams and other power, utensils and material laying 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 work or by employing any other contractor or other person or person to complete the work and contractor shall not in any way interrupt or do any act, matter of thing to prevent or hinder such other contractor or other persons or persons employed from completing and finishing or using the materials and plants for the work when the work shall be completed , or as soon thereafter as conveniently may be, the Employer shall give notice in writing to the contractor to remove this surplus materials and plant and should the contractor fail to do so within the a period of 14 days after receipt by him the Employer may sell the same by public auction and shall give credit to the contractor for the amount so realized. Any expenses or losses incurred by Employer in getting the work carried out by other contractor 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 deposits.

#### **40. 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 this contract or the construction remaining operation or effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or branch of the contract (Other than those in respect of which the decision of any person is by contract expressed to be final and binding) shall after written notice by either party to the contract to the either of them and to the Employer hereinafter mentioned be referred for adjudication to a sole arbitrator to be appointed as hereinafter provided.

For the purpose of appointing the sole arbitrator referred to above, the Employer will send within thirty days of receipt of the notice, to the contractor a panel of three 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 anyone of the persons name to be appointed as a sole Arbitrator and communicate his names to the Employer within thirty days of receipt of the names. The Employer shall thereupon without any delay appoint the said person as the Sole arbitrator. If the contractor fails to communicate such selection as provided above within the specified period, the competent authority shall make the selection and appoint the selected person as a Sole Arbitrator.

If the Arbitrator so appointed is unable or unwilling to Act or resign his appointment or vacates his office due to any reasons whatsoever another Sole Arbitrator shall be appointed as aforesaid.

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

The Arbitrator shall be deemed to have entered on the reference on the date he issued notice

to both the parties fixing the date of the first hearing.

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

The Arbitrator shall give a separate award in respect 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 direction.

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 cost or any part thereof shall be paid and may fix or settle and amount of costs to be so paid.

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

Subject to aforesaid the provision of the Arbitration Act 1992 or any statutory modification or re-enactment thereof and the rules made there under, and for the time being in force, shall apply to the arbitration proceeding under this clause.

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

#### **41. FIRMNESS OF QUOTED RATES:**

- a) The quoted rates shall be all inclusive and cover the cost of all materials, freight, all types of forwarding or any other duties or fees levied by Government and public or Local bodies, duties, royalties, erection, construction, testing, of materials samples brought for approval, settings up mock samples for approval, tools and tackles, plant and equipments, supervision, overheads, profit and any expenditure incurred, everything necessary to complete the work, as per drawings and specifications to the satisfaction of the employer & Architect & shall include transport of material to the site. The rates quoted shall be firm and will not be altered for any reason whatever. The rates quoted in the Tender shall be for the finished items only, the rates shall not subject to exchange variations, labour conditions or any other conditions what so ever. Fluctuations in the prices of any materials or equipments or labours etc. shall not be taken into account either for compensation for damage or for extras. The rates quoted in the tender are binding on the contractor. The quantities are approximate & likely to vary.

**Place:**

**Date:**

**Signature of Contractor**

- b) The rates mentioned in schedule shall be valid up to completion of the work from the date of approval, and no complaint either against Company and the architect will be entertained.
- c) The tenderer should provide the rate analysis of items as and when required by the Company. Contractor should ensure that each and every quoted rework able and self-supporting. If called upon by Architect, detailed analysis of any or of all the rates be submitted. The Architect is not bound to contractor's analysis and reserves the right to cancel rates quoted by the Contractor. In case other inconsistencies in the rates for items of same description quoted, in the different parts of the Schedule of



**APPENDIX HERE IN BEFORE REFERRED TO:**

**Name of Work: Interior & Electrical Work of Regional Office of The Oriental Insurance Co. Ltd, Madurai Region.**

- |   |  |
|---|--|
| 1. Defects Liability Period                   | : One year from the date of virtual completion   |
| 2. Period of Final Measurement and Valuation  | : 30 days from the date of virtual completion.   |
| 3. Date of Commencement                       | : Within 7 (Seven) days from issue of Work Order |
| 4. Period of completion                       | : 60 (sixty) Calendar days                       |
| 5. Agreed Liquidated Damages --               | : Rs.500=00 per day.                             |
| 6. Value of Work for Interim Certificate      | : On completion                                  |
| 7. Retention Percentage of each Running Bill. | : 5 %  |
| 8. Rate of Interest for Delayed Payment       | : Nil  |

**SAFETY CODE**

**Scaffolds**

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

ii) 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 1m. 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 opening as may be necessary for the delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying away from building structure.

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

iv) Every opening in the floor of a building or in a working platform shall be provided with suitable means to prevent the fall of person or materials by providing suitable fencing or railing whose minimum height shall be 1m.

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

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

vi). A sketch of ladder and scaffolds proposed to be used shall be prepared and approval of engineer obtained prior to construction.

#### **OTHER SAFETY MEASURES.**

vii) All personnel contractor working within the plant site shall be provided with safety helmets. All welders shall wear welding goggles while doing welding works and all metal worker shall be provided with safety gloves.

viii). Adequate precaution shall be taken to prevent danger from electrical equipment. No material 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 and Trenching.**

ix) 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 the bottom of the trench to at least 1 m above the surface of 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 material shall not be placed within 1.5 m of the edges of the trench or half of the depth of trench whichever is more. Cutting shall be done from top to bottom. Under no circumstances undermining or undercutting shall be done.

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

#### **Demolition**

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

a) All roads and open areas adjacent to 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 person employed from the risk of fire or explosion or flooding. No floor, roof or other part of building shall be so overloaded with debris or material as to render it unsafe.

### **Personal Safety Equipments**

xii) All necessary personal safety equipment as considered adequate by the Engineer should be kept available for use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor shall 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 materials

- which are injurious to eyes shall be provided with protective goggles.
- c) Stone breaker shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- d) Those engaged in welding works shall be provided with welder's protective eyesight lids.
- 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 the manhole 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 product containing lead or any toxic material in any form. Wherever men above the age of 18 years are employed on the work of such painting the following precaution should be taken;

- i) No paint containing lead or lead product shall be used except in the form of paste or ready made paint. Paint like vinyl and epoxies having toxic fumes should be applied after following precaution laid down by manufacturers.
- ii) Suitable facemask 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) Overall shall be supplied by the contractor to the workman and adequate facilities shall be provided to enable the working painters to wash during the cessation of work.

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

#### **Hoisting Machines (If applicable)**

xiv) Use of hoisting machines and tackle including their attachment, anchorage and supports shall conform to the following standard or conditions;

1. a) These shall be of good mechanical construction sound material and adequate strength and free from patent defect and shall be kept in good repair and in good working order.

b) Every rope used in hoisting or lowering materials or as means of suspension shall be of durable quality and adequate strength and free from patent defect.

2. Every crane driver or hoisting appliances operator shall be properly qualified and no person under the age of 21 years shall be in charge of any hoisting machine including any scaffolding winch or give signals to operator.

3. In case of every hoisting machine and of every chain hook ring, shackle shovel and pulley block used in hoisting or as mean of suspension the safe working load shall be ascertained by adequate means. Every hoisting machines and all gear referred to above shall be plainly marked with safe working load. In case of a hoisting machines having a variable safe working load , each safe working load and the condition under which it is applicable shall be clearly indicated. No part of any machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4. In case of departmental machines, the safe working load shall be notified by the engineer. As regards contractor's machines, the contractor shall notify the safe working load of the machine to the Engineer whenever he brings any machinery to site of work and get it verified by the Engineer concerned.

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

xvi) All scaffolds, ladders and other safely devices mentioned or described herein shall be



maintained in safe conditions and no scaffold, ladder or equipment shall be altered or removed while it is in use.

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

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

xviii) To ensure effective enforcement of the rules and regulation relating to safety precautions the arrangements made by the contractor shall be open to inspection by the labour officer, Engineer of the Department or their representatives.

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

## **MODEL RULES FOR THE PROTECTION OF HEALTH AND SANITARY ARRANGMENTS FOR WORKERS**

### **Application**

These rules shall apply to all building and constructions works in charge of (Name of the projects).

### **Definitions**

2. a) "Workplace" mean a place at which, at an average 50 workers are employed in connection with construction work.

b) "Large Workplace" means a place at which average 500 or more workers are employed in connection with construction work.

### **First Aid.**

3.a) At every workplace, there shall be maintained in readily accessible place first aid appliances including an adequate 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 responsible person who shall be readily available during working hours.

b) At large work places, where hospitals facilities are not available within easy distance of works, first aid posts shall be established and be run by a trained compounder.

c) Where large work places are remote from regular hospitals, an indoor ward shall be provided with one bed for every 250 employees.

d) Where large work places are situated in cities, towns in their suburbs and no beds are considered necessary owing to the proximity of city town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to the hospitals.

At other work places, some conveyance facilities, such as car, shall be kept readily available to take injured persons or persons suddenly taken ill to the nearest hospitals.

### **Drinking Water**

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

b) Where drinking water is obtained from an intermittent public water supply, each work place shall be provided with storage where such drinking water shall be stored.

- c) Every water supply of storage shall be at a distance of not less than 15 meter. From any latrine, drain or any other source of pollution. Where water has to be drawn from an existing well which is within the proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated water is drawn from it for drinking. All such well shall be entirely closed in and be provided with a trap door which shall be dust and waterproof.
- d) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

### **Washing and Bathing Places**

- 5 a) Adequate washing and bathing places shall be provided, separately for men and women  
 b) Such places shall be kept in clean and drained condition

### **Scale of Accommodation in Latrines and Urinals.**

6. There shall be provided within the precincts of every work place latrines and urinals in an accessible place, and the accommodation, separately for each of them shall not be less than the following scale.

Sr. No.		No. of seats
a)	Where the number of persons does not exceed 50	2
b)	Where the number of persons exceed 50 but does not exceed 100	3
c)	For every additional 100	3 per 100

In particular cases, the Engineer shall have the power to vary the scale where necessary.

### **Latrines and Urinal for women**

7. If women are employed, separate latrines and urinals screened from those for men and marked in the vernacular in conspicuous letters For Women Only shall be provided on the scale laid in rule 6. Those for men shall be similarly marked For Men Only. A poster showing the figure of a man or a woman shall also be exhibited at the entrance of latrines for the respective sex. There shall be adequate supply of water close to the urinals and latrines.

### **Latrines and urinals**

8. All latrines shall be provided with septic tanks or leach pits in case of small unit. All the latrines shall be kept in good sanitary condition.

### **Construction of Latrines**

9. The inside wall shall be constructed of masonry or some suitable heat resisting non absorbent materials and shall be cement washed inside and outside at least once a year. The dates of cement washing shall be noted in a register maintained for this purpose and kept available for inspection. Latrines will not be of a standard lower than borehole system and should have thatched roofs.

## **Disposal of Excreta**

10. Unless otherwise arranged for by the local sanitary authority, arrangements for proper disposal of excreta shall be made by septic tank or leach pit duly approved by the Engineer and in conformity with the requirements of local public health authorities.

## **Provision of Shelter during Rest**

11. At every work place there shall be provided free of cost, two suitable shades, one for meals and the other for rest separately for man and women for the use of labour. The height of shelter shall not

be less than 3.5m from the floor level, to the lowest part of the roof. The sheds should be roofed with at least thatch and mud flooring will be provided with a dwarf wall around not less than 750mm. The sheds should be kept clean and the space should be the basis of at least 0.50sq.m.per.head.

## **Crèches**

a) At every work place at which 50 or more women workers are ordinarily employed, there shall be provided two huts for the use of children under the age of 6 years belonging to such women, one hut shall be used for infants games and play and the other as their bedroom. The huts shall not be constructed on a lower standard than the following:

- i) Thatched roof
- ii) Mud floors and walls
- iii) Planks spread over the mud floors and covered with matting.

The huts shall be provided with suitable and sufficient openings for light and ventilation. There shall be adequate provision of sweepers to keep the place clean. There shall be two dais in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officers of the area concerned. The use of the hut shall be restricted to children, their attendants and mothers of the children.

b) Where the number of women workers is more than 25 but less than 50, the contractor shall provide at least one hut and one dais to look after the children of the women workers.

c) The size of crèche or crèches shall vary according to the number of women worker.

d) The crèche or crèches shall be properly maintained and necessary equipments like toys, etc. shall be provided.

## **Canteen**

13. A cooked food canteen on a moderate scale shall be provided for the benefit of workers wherever it is considered expedient.

14. The above rules shall be incorporated in the contracts and in notices inviting tenders shall form an integral part of contract.

## **GENERAL SPECIFICATIONS**

### **BRICK MASONRY/230 THICK BRICK MASONARY**

Bricks shall be hard sound, rectangular, clean, well burnt of uniform size and shall conform to the ISI standard specifications no. 1077-57 for first class bricks. Soaking in specially prepared vats, tubs or tanks for not less than two hours, shall wet all bricks and until air bubbles stop being given off. Newly laid brick work shall be kept continuously wet by approved means for 8 days.

All brick work shall be set out and built to the respective dimensions, thickness and heights shown on the drawings in cement mortar as specified. Brick work shall be carried out in a uniform manner, no one portion being raised more than one meter above another at one time. Any dislodged bricks shall be removed and reset in fresh mortar. Before commencing any brick work, the contractor shall confirm with other trades to ensure that all pipes, conduits, drains, sleeves, bolts, hanger or any other materials necessary to be installed in the brick work at the time it is built, have been fixed or provided

for.

## **MORTAR**

The mortar for masonry work shall be of cement and sharp coarse sand and shall be made in small quantities so as to be used up within 30 minutes. The cement and sand of the required proportion shall be first mixed dry thoroughly and water added and mixed to a sufficiently thick consistency as required by the Architect. No left over mortar shall be used.

## **RATES TO INCLUDE**

The rates of brick work shall generally include:

All scaffolding, ladders, platform, staging and platforms required in the execution of work to any height or depth.

Hacking and roughening of concrete or other surfaces in contact with masonry for bondage. Extra cutting and waste.

Rough cutting and waste.

Raking out joints to specified depth either for plaster or pointing or finishing the joints flush as the work proceeds as directed.

Leveling up and preparing tops of walls for damp proof course, precast unit etc.

Beading and pointing wall plates, lintels, sills etc. in or walls, beading and pointing doors, windows and the like in mortar.

Holes (cut to and formed or left) for fixing, pipes slots and other inserts and making good including grouting if necessary.

Forming chases for edges of concrete floors or any other units for sealing in a waterproofing layers etc.

Building in holdfasts and such other inserts.

Selecting best bricks for facing and building all exposed faces fair.

Keeping the work well wetted for one week.

Work at all heights, depths and locations unless otherwise specified.

## **PLASTERING**

All plaster work shall be executed in a workmanship like manner and shall be finished to true levels including plump without imperfections and square with adjoining work and shall be clean, free from efflorescence sufficiently rough and keyed to ensure proper bond.

Wherever directed all joints between concrete frames and masonry in filling shall be expressed by groove in the plaster. This groove will exactly coincide with the joint beneath. At the corners of all windows and doors or other openings and wherever instructed. 24 gauge expanded galvanized metal strip 200 mm wide and 450 mm long shall be placed diagonally to prevent plaster cracks or use of chicken mesh shall be adhered to Where grooves are not called for the, the joint between concrete and masonry in filling shall be covered by 24 gauge expanded galvanized metal strip 40 mm wide installed before plastering. The contractor shall stock all necessary labour, material, tools and scaffolding necessary for the completion of the works detailed. He shall be responsible to take proper precaution, to protect already installed work from damage. Any work rejected through non-compliance with the specification or damaged work shall be removed and replaced at the expenses of the contractor. All chasing, installation of conduits and electrical boxes etc. shall be completed before any plastering is commenced on a surface. Chasing or cutting of plaster will not be permitted. Broken corner shall be cut back not less than 150 mm on both sides and patched with plaster. All corners shall be rounded to a radius. Samples of each types of plasterwork shall be prepared for approval by the architect. The material used for plastering shall be proportioned by volume by means of gage boxes. Alternatively it may be required to proportion the material by weight. Sand used for plasterwork shall be screened invariably.

### **1. Plaster Work.**

The joints in the work, concrete blocks shall be raked to a depth of 12/15 mm wrinkle in masonry is green. Concrete surface to receive plaster shall be suitably roughened. All walls shall be 15 mm thick on walls and 12 mm thick for the ceiling. The finished texture shall be approved by the architect. The mix for plaster shall be one part cement, six part sand, to walls and one part cement and four part sand to ceiling. Where called for the interior plaster shall be applied in two coats. The first coat shall be 15 mm thick on walls and 10 mm thick on ceiling. It shall consist of one part cement and six parts

washed coarse sand and shall be combed with wire and left damp for 48 hours. Before the application of second coat, the surface shall be thoroughly wetted. The finished coat shall be 5 mm thick and shall consist of one part lime putty and three parts sand. All plaster work shall be kept continuously wet for proper curing.

## **2. PAINTING**

The specification covers the complete painting and finishing of all surfaces requiring painting throughout the interior and exterior of the building. Refer to room finish, distribution, surfaces etc. The contractor shall supply all labour, materials, tools, ladders, scaffolding and other equipment necessary for the completion and protection of the work. Storage of materials used on the jobs shall be kept near, clean and dry. All colors shall be as provided in the colors schedule which shall be provided by the Architect. The contractor shall be as far as possible use premixed manufacturer colour or/and shall prepare sample of the colours selected and submit the same for the approval by the Architect. No work is to be proceed until the architect has given his approval, preferably in writing of the colour samples. Materials used in the works shall be of the specified brand and of approved quality. Paints shall be ready mixed and all paints, varnishes, enamels, lacquers, stains and similar material must be delivered to the job site in the original container showing brand name, type of paint, colour of paint and instruction for using. Thinning shall be done only in accordance with directions. The rejected materials shall be removed from the premises immediately.

## **3. WORKMANSHIP**

The workmanship shall be of the very best quality and all material shall be evenly spread and smoothly applied on without runs or bags, using good quality brushes and tools etc. as required. Only skilled painters shall be constantly on the jobs while the work is proceeding. All surfaces to be painted and floors in the rooms being painted shall be cleaned free of all work where a coat material has been applied must be inspected and approved before application of the succeeding specified coat. In case any tiny anti-fungal coating is required to be done it must be of the same make. All interior and exterior trim, door frames, doors, shelving, cabinet work shall be thoroughly and carefully back painted on all the surfaces and edges which will be concealed when installed such surfaces shall be clean, dry, sanded and properly prepared to receive paint tops, bottoms and edges or doors shall be finished the same as the rest of the door. Interior of cabinet shall receive the same finish as specified for outside, unless otherwise noted in the schedule. Drawer shall be given one coat of the shellac all over. Where walls are specified to be painted, all columns, soffit, returns etc. shall be included.

## **4. PROTECT AND CLEAN**

The contractor shall protect not only his own work at all times but shall also protect all adjacent work and materials by suitably covering or other acceptable method during progress of his work. Upon completion of his work he shall remove all paints and varnish spots from the floors, glass and other surfaces. Any defected surface shall be cleaned and the original finish restored. He shall remove from premises all rubbish and accumulated material and shall leave the works in clean order and acceptable condition.

## **5. PAINTING; OIL/ ENAMEL/PLASTIC EMULSION ETC.**

Ready mixed oil paints, flat oil paint, plastic emulsion paint, ready mixed synthetic enamel paint; aluminum paint etc. shall be brought in original containers and in sealed tin. If for any reason a thinner is necessary the brand and quality of the thinner recommended by the manufacturer or as instructed by the architect shall be used. The surface primer shall be applied after 24 hours drying approved or specified quality paint shall be applied evenly and smoothly. A filler putty containing may be given to give thoroughly and then lightly rubbed down with sand paper and cleaned of dust before the next coat is applied The numbers of coats shall be as specified in the item and if the finish of the surface is not uniform additional coat as required shall be applied to get good uniform finish at extra cost. After completion no hair mark from the brushes, clotting of paints, puddles in the corners of panels, ends of the moulding etc. shall be left on the work. The glasses, panels, floors etc. shall be cleaned off from stains. When the final coat is applied if directed , the surface shall be rolled with a roller or textured to a special texture finish as approved by the Architect as per sample to be prepared before start of

work.

## **5.0 WOODEN DOORS AND WINDOWS**

### **5.1 TIMBER FOR FRAMES**

Timber shall be of good quality, well-seasoned wood of uniform colour with reasonably straight grains. It shall be free from knots and shakes etc. Timber shall be accepted as well as seasoned if moisture does not exceed 12%

### **5.2 WOOD WORK**

The woodwork shall be carried out as per detailed drawing and as directed by the Owner. Timber shall be swan in the direction of the grains. Sawing shall be straight and square. Scantlings shall be accurate plained smooth to full dimensions and rebates, rounding, moulding shown in the drawing made before the same are framed. Patching or plugging of any kind shall not be permitted. Joints shall be simple, neat, close fitting and strong. Joints shall be fixed with Fevicol and after the frames are put together and pressed in position they shall be pinned with hard wood or steel pins. All mortice and tennon joints shall fit in fully and accurately without wedging or filling. All woodwork shall be approved by the owner before it is painted. All portions of timber abutting against or embedded in masonry or concrete shall be painted with boiling coaltar of solingnum before being placed in the position.

Before frames are fixed in position, these shall be inspected and passed by the engineer in charge. Frames shall be placed in proper position and secured the wall with three MS holdfast, heavy duty on each side of doorframe and two on each side for windows.

In case of doorframes without sills, vertical members shall be buried in the floor at least 40 mm deep. The frame without sills shall be provided with temporary construction. Frames shall be painted with one coat of wood primer and three coats of synthetic enamel paint or polished with French polish as specified.

All wood shall be kiln seasoned and chemically treated. As per IS Code.

### **5.3 COMMERCIAL BOARD**

Commercial board shall be made seasoned, treated with preservative battens under controlled parameter of temperature and humidity and shall confirms to IS: 1141:1993 and IS: 401:1982.

## **6.0 LAMINATE**

Laminate shall be 1/1.5 mm thick as specified in the drawings and details of make and shade as approved by Architect. The laminates shall be fixed with a good quality adhesive like Fevicol/ Jivanjor. It shall be pressed and left for sufficient time to give a good smooth surface without any air pocket or any signs of wrapping etc. it shall confirm to be BE: 2046

## **7.0 GLASS GLAZING AND MIRRORS**

### **7.1 SAMPLES**

The contractor shall submit samples of all glass and mirror types and glazing materials for approval. The glass and mirror shall be obtained of an approved brand.

## **DELIVERY AND STORAGE**

Delivered material must match the approved samples. Packaged material shall be delivered in the original, unopened, labeled containers of the manufacturer, clearly marked with their names and brand.

Glass shall be stored while awaiting installation in a dry well ventilated location at a constant temperature maintained above due point. Handling of glass shall be kept to the minimum. The glass shall be protected against soiling, condensation and the like.

## GLASS

Glazing generally shall be conforming to IS: 1767-1960 and shall be subject to approval. Glass shall bear the manufacturers grade label that shall remain on the glass until after inspection and approval.

### **GLAZING ACCESSORIES**

Neoprene strips for glazing aluminum element shall comply with the following :

Strip shall be of cross section designed to fit the glass thickness and glazing frame sections to be glazed. Strip shall be supplied by the manufacturer of the framing elements taking into consideration the type and thickness of the glass to be fixed. The glazing compound shall allow for the free thermal expansion of the glass and it shall not harden out, thus preventing the free movement recommended by the glass manufacturer. Setting blocks shall be recommended by the glass manufacturer which otherwise shall be lead, sealed hardwood or rigid neoprene.

### **FIXING**

All external glazing shall be wind and weather tight on completion.

Frames to be glazed shall have sufficient to ensure that the glass panels do not have a supporting function. Edge clearance shall be equal all round each panel and not less than 3 mm for single glazing. Setting and location block shall be used on all panes exceeding 2 Sq.m. unless otherwise recommended. The contractor is to locate the clocks as recommended by the manufacturer but never more than 75 mm from corner of surround. No voids or places shall be left in back of bedding compound. Tinted glass shall be fixed having consideration of the physical properties of the type of glass and location as recommended by the manufacturer. The frame manufacturer shall coordinate with the glass manufacturer to ensure best results.

### **OTHER GLAZING REQUIREMENTS**

The requirement of ISI code glazing and fixing glass for building shall complement and shall be deemed to be part of these specifications.

### **TEMPERED GLASS AND MIRROR**

Tempered glass shall be cut, drilled, polished and worked only by the manufacturer at the factory and in accordance with approved shop drawings. Glass for unframed doors, balustrades and mirrored false ceiling shall be supplied with from monger fitting and fixing as supplied by the manufacturer in accordance with approved samples All fittings, fixing etc. shall be strictly in accordance with the tempered glass manufacturers and recommendations.

### **DAMAGED GLASS**

The contractor shall prior to installation inspect each piece of glass. Glass with damaged edges or surfaces shall not be installed and shall be removed from the site

#### **7.10 MARKING GLASS.**

Manufacturers' job marking on glass and adhesive for manufacturer labels shall not be alkaline but shall be neutral or slightly acidic.

#### **7.11 CUTTING GLASS**

Cutting of glass shall be in accordance with site measurements or dimensions.

#### **7.12 MIRRORS GENERAL**

Mirrors shall be fabricated from clear plate or float glass of the quality and finish shown in the drawings and schedules unless otherwise required.

#### **7.13 THICKNESS**

All fixed mirrors shall be 5.5 mm thick unless otherwise stated.

#### **7.14 EDGES**

All edges of the mirror shall be polished with levied corner miters to BS 952 table 23 wherever it is indicated in the drawing.

#### **7.15 DRILLING**

All drilling of holes shall be carried out at site of fabrications. No chipping starring and other visible imperfections around holes will be accepted.

#### **7.16 PROTECTIVE BACKING**

The silver deposit on the back of the mirror shall be of any approved thickness and shall be protected from moisture by a copper backing followed by a boating or shellac varnish and paints.

#### **7.17 SIZES**

In general wall and panel cladding mirrors shall not exceed 2400\*1200 and shall be fixed to a continuous sheet of 20 mm thick board backing or as shown on the drawings.

#### **7.18 FIXING**

Panels shall be securely fixed with screws on 'Z' clips at minimum 600 mm centers horizontally and 1200 mm centers vertically.

Mirrors shall be fixed to backing by adhesive or special fixing as shown on the drawings or otherwise specified.

Screws shall be chrome plate and wood screws with collars and domes unless otherwise required.

#### **7.19 FINISH OF FIXING**

All visible metal fixings shall be of approved finish to match mirror finish and colour.

#### **7.20 JOINTS**

All adjoining section is of mirrors shall be separated by proper thin joints.

#### **7.21 PROTCTION OF GLASS AND MIRRORS**

Glass shall be protected from the paint, plaster, welding splatter, construction scum and the like. Should any such soiling occur the glass be promptly washed off as specified below.

Glass generally shall be protected with temporary wooden barricades or other warning devices as a deterrent against passing objects through glazed opening. Labels or markings shall not be applied directly to tinted glass.

#### **7.22 CLEANING**

When directed by the owner the contractor shall remove all markings and labels from glass and wash the glass with a mild neutral or acidic solution as recommended by the glass manufacturer. Alkaline or abrasive agents shall not be used.

#### **7.23 PROTECTION**

The contractor shall be responsible for protecting all glass in those areas of work forming part of this contract. The contractor shall replace at his own cost any broken or damaged glass caused through lack of adequate protection or care in installation or handling. The contractor shall make his own investigation to guard against local sources of attack and damages and take all necessary precautions for protections.

#### **7.24 COMPLETION**

On completion of installation the contractor shall leave all glass, mirrors and fixing perfect to the



satisfaction of the Architect.

## **8.0 POLISHING**

The surface shall be free of dirt and dust etc. and sand papered to a smooth surface. The polish shall be prepared with spirit and approved quality acrylic. The surface shall be prepared and all holes, cracks shall be filled to form a truly even surface. For white cedar, approved quality of white shall be used to polish. The polishing of the exposed surface shall be done with minimum three coat of spirit polish with immediate sand papering after each coat of polish. It shall be finished to the entire satisfaction of the Architect and a final coat of 'Mansion Wax' polish shall be applied and the surface be finished. For insides of cabinets and drawers, the polish shall be done in two coats. The undersides of the table tops shall be finished with one of polish. All samples of polish shall be approved by the Architect and shades / colour shall be matched properly wherever necessary.

## **9.0 ADDITIONAL SPECIFICATION**

9.1 All woodwork which is not visible will be painted with approved fire retardant paint with resistant properties (Viper or equal) as per manufactures specifications. This shall be done before it is installed in position. No covering over the timber is permitted till the timber is checked and certified by the Engineer-in-charge.

9.2 All steel work shall be painted with one coat of primer and two coat of first quality enamel paint of approved make. The priming coat shall be done before installation.

9.3 Painting and Finishing shall be carried out on wood and steel as described in description of items whether specifically or not in the item shall be done by the contractor without any extra cost.

## **10.0 MANDATORY TEST**

10.1 The contractor is required to carry out test for different materials and items as per CPWD specification and IS Code from a reputed test house and no extra shall be paid on this account.

## **11.0 WATER & ELECTRICITY**

11.1 The contractor shall arrange water and electricity at his cost as required to carry out the work no extra payment will be made for the same.

## **12. TIMBER:**

1. Timber for use in carpentry work shall not have loose grains, splits, heartwood rot, sap roat, wrap, wormhole made by powder pest beetles and pitch pockets. Knots, shakes and checks shall not be permitted in maximum trees intensive areas or locations and only permitted in locations where joints are provided.

Cross grains shall not be steeper than 1 in 15.

The diameter of individual sound knot & live knot shall not exceed 25mm & the aggregate area of the knots shall not exceed one percent of the area of the piece.

Timber shall be generally free from sapwood but traces of sapwood up to 155 may be allowed provided it is properly treated with preservatives as per I.S. 401-1967.

Moisture content shall not be more than 20%

2. For under framing 1<sup>st</sup> class seasoned teakwood shall be provided if other species of wood is not specified in the schedule of specification. A defect in timber is not acceptable.

3. Aluminum section shall be anodized 18-20 microns. The contractor shall arrange for getting the samples of aluminum tested for anodizing from National Test House, F/10, Marol MIDC, Andheri East, Mumbai : 400 093 at his cost. In case the anodizing thickness is not as specified, work shall be paid at reduced rate.
4. Adjustable jack for false flooring shall be required as per Company/ Architect's requirement.
5. Plywood: Plywood shall be of good quality interior grade, commercial type, phenol formaldehyde resin bonded and of approved make. It should conform with respective ISI specifications.
6. Laminate: Should be of best quality and conforming to ISI specifications and of approved make.

All exposed faces of joinery shall be planned smooth and neatly and truly finished to the full dimensions, rebates, rounding and molding, lapping as indicated. Unless dimensions are indicated to be finished dimensions, a tolerance of 2mm shall be permitted for each planned face.

**Jointing :**

To cut the joints and arrange the fastenings in such a way so as to weaken as little as possible the pieces of Timber they connect.

To form and fit accurately every part of surfaces that comes in contact. o the pressure it has to transmit.

All mortise, Tenon and other joints shall fit fully and truly without wedging or filling and finished neatly. But joints shall be cross-tongued. The tongue shall be cut at angles or diagonally to the grains of the wood.

The contact surfaces of mortise and tenon shall be glued before putting together with Fevicol Synthetic Adhesive. Tongued and grooved joints shall also be properly glued with Fevicol. The Contractor shall obtain written permissions of the Architect before putting tar/ wood preservative, painting, and polishing or otherwise treating wooden works/ framing.

If after erection/ fixing unus shrinkage or bad workmanship is discovered in the Joinery work, the contractor shall for the with replace/ refix the same to the satisfaction of the Architect, without any extra charges.

**7. Hardware's**

Nails/ Screws : GKW nettle folds

Mortise locks, Furniture locks/ : Godrej make or equivalent

## Hinges

Butt hinges for Cupboards/ Cabinets : Brass

## Tables

Aldrops bolts / Tower bolts : Brush Steel Finish/ Brass (as directed by Architect).

8. **Cleaning:** Cleaning is part and parcel of the job and to be done to the satisfaction of Architect. All wooden, laminated surfaces, glasses inclusive of (window in the building) steel, aluminum-anodized surfaces shall be left clean and spot free from dust, polish marks.
9. **Locking Device:** Unless otherwise mentioned in the drawing or schedule, bill of quantities all drawers/ cupboard shutters of cabinets, counters, tables shall have cylindrical Furniture locking device of Godrej/ Dorma or Equivalent brand, as approved by the Architect.

**Rates of painting, polishing, locking devices shall be included while quoting for each items.**

1. All work should be done with best specifications. It should be confirmed to respective ISI and Building Code specifications.
2. The work should be done in good work manly manner and to the satisfaction of the Architect.
3. The make and he colour of material to be used should be got approved from Architect and sample to be retained on site before using.

**Detailed Specification for Painting Work:**

**Painting Work:**

1. Paints of Asian/ ICI paints to be used. Sheds shall be as approved by the Architect.
2. Plastic emulsion Paint: 3 coats of painting shall be done over a coat of primer over prepared smooth and even surface with the filler water proof putty as required after sand papering the masonry/ wooden surface.
3. Synthetic Enamel Paint: 2 coats of synthetic enamel painting shall be done over a coat of primer over prepared smooth and even surface with the filler putty as required after sand papering the surface.

## **ELECTRICAL WORK TECHNICAL SPECIFICATIONS**

### **General :**

1. The entire installation shall be carried out in accordance with Indian Electricity code and relevant IS standards up to date. The work shall also comply with all statutory regulations of supply agencies, state inspection authorities and fire regulations.
2. Contractor shall be responsible all necessary statutory approvals, clearances, sanctions, drawing approvals and getting actual connections.
3. Definition of terms pertaining to all technical requirements as per IEE/ IS shall apply.
4. Contractor shall submit all necessary drawings for scrutiny and approval by Engineer/ Consultant prior to taking up of works. Contractor shall immediately bring out the difficulties faces in execution of works to the notices of Engineer/ Owner/ Consultant.
5. All material, equipment, fittings used in the installation shall be of approved quality confirming of relevant IS specifications.
  
6. On completion of works contractor shall carry out all necessary tests such as insulation resistance test, continuity of conductors and earth resistance and functional tests along with commissioning checks to the satisfaction of Consultant/ Engineer.
  
7. Contractor shall furnish necessary test certificates as required by authorities and Consultant.
  
8. List of IS standards is attached separately.

### **LIST OF STANDARD**

- |        |      |   |
|--------|------|---|
| 01. IS | 4648 | Code of practice for Electrical layout in Residential Buildings.                        |
| 02. IS | 7320 | Electrical wiring Installations (System Voltage not exceeding 650 V)                    |
| 03. IS | 2274 | Electrical wiring Installations (System Voltage not exceeding 650 V)                    |
| 04. IS | 3043 | Code of practice for earthing.  |
| 05. IS | 2809 | Code of practice for lightning protection.  |
| 06. IS | 1913 | General and safety requirements for electrical lighting fixtures.                       |
| 07. IS | 5319 | Guide for safety procedures and practices for electrical work.                          |
| 08. IS | 2268 | Electrical call bells and buzzers.  |
| 09. IS | 3412 | Electrical water boilers.   |
| 10. IS | 2882 | Storage type Automatic water Heaters.   |
| 11. IS | 1646 | Protection for Fire safety of building Electrical installation.                         |
| 12. IS | 5908 | Electrical Installation in Building Method of measurement.                              |
| 13. IS | 694  | Specification for PVC insulated cables for working Voltages up to and including 1100 V. |
| 14. IS | 1554 | Specification for PVC insulated cables for working Voltages up to and including 1100 V. |
| 15. IS | 3961 | Recommended current ratings for cables PVC insulated and sheathed.                      |
| 16. IS | 2147 | Degree of protection.   |
| 17. IS | 4237 | General requirement for Switchgear and control gear for Voltages not                    |



exceeding 1000 VAC and 1200 V.D.C.

- 18. IS 10118 Code of practice for selection, installation and maintenance of swgr and control gear.
- 19. IS 8623 Specification of factory built assemblies of switchgear and control gear for voltages up to and including 1000 V AC & 1200 V AC.
- 20. IS 3106 Code of proactive for selection, installation and maintenance of fuses (Voltages not exceeding 600 Volts.)
- 21. IS 2551 Danger Notice Board.
- 22. IS 1886 Code of practice for installation and maintenance of transformers.
- 23. IS 1160 Distribution Transformers.
- 24. IS 2026 Power Transformers.
- 25. IS 3639 Fittings and Accessories for Transformers.
- 26. IS 6600 Transformer Oil.
- 27. IS 335 Bushing 100 AC.
- 28. IS 3637 Buchholz's Relay.
- 29. IS 7421 Bushing 100 V AC.
- 30. IS 1271 Electrical Insulation for Thermal Rating.

## **M.V.PANELS AND DISTRIBUTION BOARDS**

### **1. CONSTRUCTION :**

The panels shall be free standing, floor mounting compartmentalized cubicle type panels with framed structure and bottom channel frame of suitable section. The frame structure shall be rolled/ folded sheet section of 2.0 MM thick sheet. Partitions shall be 1.6 MM thick. The panel shall be dust and vermin proof with neoprene gasketing. Following minimum clearances shall be adhered to while such designs.

- A. Between phases : 35 MM
- B. Between Phases & Neutral : 25 MM
- C. Between Phases & Earth : 25 MM
- D. Between Neutral & Earth : 25 MM

All installation materials used for supports shall be non-hygroscopic duly treated to withstand high humidity, tropical conditions and stresses due to temperature variations. The panels shall be so designed to provide sufficient space for cable alleys for incoming cables. Removable gland plates shall be provided. Shrouding with Hylum sheet shall be provided for all compartments and live parts such that no live part is exposed directly on opening any door.

### **2. CLEANING AND PAINTING:**

The fabricated sections shall be thoroughly cleaned by 7 tank process which includes alkaline degreasing, cold water rinsing, acid pickling, water rinsing, phosphating and passivation. Panels shall then be painted with 2 coats of corrosion resistant primer and oven dried under controlled conditions.

Then 2 coats of stoving enamel paint of approved shades shall be given.

### **3. BUS BARS :**

The bus bar unless otherwise specified shall be of high conductivity aluminum alloy of grade E9 per IS 5082. The bus bar shall be provided with suitable SMC bus bar support suitable for withstanding fault level up to 50 KA. The bus bar shall also withstand above fault level without permanent deterioration. The connections shall be securely done with adequate size of plated hardware plate and spring washer sets. The inter connections shall be made with solid bus bars as far as possible. Bus bars shall be provided with colour coded PVC sleeves.

4. **The switchgear** used in panels shall be pertaining to relevant IS standards and shall be from the approval list. The terminals shall be suitable for accepting bus bars and cables of relevant sizes suiting the switchgear rating. The metal parts other than live contacts shall be treated against corrosion. All switches shall be with door interlocked provision

#### **5. MEASURING INSTRUMENTS AND INSTRUMENT TRANSFORMER :**

Direct reading instruments shall be in confirmation with IS 1248 and of accuracy class 1.0. All meters shall be flused mounting type with minimum 96 X 96 MM size and in dust proof enclosures. The meters shall have white dials with black scales. All meters shall have sealing arrangement and zero adjustment secure from outside.

Voltmeters and ammeters shall be moving iron type with suitable selector switches and protective fuses for potential circuits.

The current transformers shall be single pole wire wound resin cast accuracy class 1.0 for metering and 5p for protection. Separate CT's shall be provided for metering and protection. The polarities shall be prominently marked CT circuits shall be wired with 2.5 Sqm. multistrand copper wires. CT's shall not be kept open and terminal-shortening arrangement shall be provided.

#### **6. INDICATION AND CONTROL :**

The control switches shall be rotary type with suitable isolation transformer provided for control supply. Control supply bus shall be provided wherever necessary. Indicating lamps shall be translucent lamp covers and with arrangement to replace bulbs from front. Push buttons shall be momentary contact. Type with suitable color cod and shall be fitted with integral marker plate.

The control wiring shall be with 1.5 Sqm. multistrand 1100 V gr copper wire except CT Circuit, which shall be with 2.5 Sqm. wires. Identification ferules and color coding shall be used for all wire control fuses shall be provided wherever required. The control wires shall be bunched and traced properly and shall not be left hanging.

#### **7. DISTRIBUTION BOARDS :**

The distribution boards shall generally be as per panel specification above. All DB's shall be MCB type suitable for concealed/ surface installation. DB's shall be factory made vertical type with hinged secured front covers, knob protection cover, top and bottom knock outs, earthing studs circuit marking provisions.

The DB shall be completed pre wired with necessary bus bars interconnecting terminals, neutral bus.

The MCB's shall confirm to IS 8828 and shall have 9 KA breaking capacity.

#### **8. INSPECTION AND TESTING :**

Inspection and testing for all panels as per IS Standard shall be offered to consultant/ owner's representatives.

### **CABLES AND CABLE LAYING**

#### **A) H. T. CABLES :**

- i) The H.T. cables shall be XLPE insulated of appropriate voltage class sheathed, armored multistrand aluminum conductor manufactured in accordance with S 7098 part IS II
- ii) The cables shall be supplied with non-returnable wooden drums in appropriate lengths and shall be free from twists and surface damages.
- iii) The ends of the cables shall be properly sealed and secured so as to avoid water seepage during transit and storage.
- iv) The cables shall be laid at a depth of 1000 MM minimum and shall have 75 MM sand cushion brick box and top RCC protective tile marked "H.T. cables" of size 600 X 225 MM.
- v) Cables shall be laid with the help of jacks and rollers to avoid dragging and twisting. Sufficient loops shall be provided at bends and in center.
- vi) Cables shall be supported with protective pipes and clamps on vertical runs and shall be laid through appropriate pipes for road and gutter crossings.
- vii) Heat shrinkable/ push on jointing kits of reputed makes shall be used for indoor/ outdoor end terminations. Heat shrinkable boots shall be provided for bushing connections.



## B) L. T. CABLES. :

All power and distribution cables shall be 1100 V grade, PVC insulated and sheathed armored, multi strand aluminum conductor cables unless otherwise specified.

All control cables shall be 1100 V grade PVC insulated and sheathed armored – multi strand copper conductor cables unless otherwise stated.

The cables shall conform to IS 1554-1976 with up to date amendments. Type test certificates of the cables from manufactures for the particular drums shall be provided.

## LAYING :

The cables shall be thoroughly inspected for transit damage and irregularity in sheath etc.

- i) Sufficient manpower with necessary equipment like jacks, rollers shall be provided for unwinding and laying the cables and dragging and twisting shall be avoided. Proper unwinding methods shall be used to avoid twists.
- ii) Cables shall be laid at a depth of at least 750 MM foreground level with 50 MM sand bedding, brick box with cushion for protection. Bending radius provision of at least 8 D shall be kept while laying. The trenches shall be filled and reinstated layer by layer leaving crown on top.
- iii) H.T. & L.T. cables shall be laid in same trench. When more than one cable are laid in same trench a gap of at least 150 mm shall be kept between the cables.
- iv) Cables laid on walls, trenches shall be supported at every 600 MM for vertical run and every 450 MM for horizontal run. Suitable clamps shall be provided for fixing and support. Vertical runs near ground level shall be protected by GI Pipes of suitable size up to at least 1200 MM.

## JOINTING :

Jointing or end termination of cables shall be done by skilled person only. Straight through joints shall be avoided as far as possible. The length of the cables are approximate and actual site measurements shall be taken by contractor prior to cutting any cable. Heavy duty compression type brass shall be used for outdoor connections. Crimping type lugs with suitable brass hardware shall be provided for connections.

## TESTING :

Cables shall be used as soon as they are brought to site. Insulation resistance shall also be tested.

- i) After cutting.
- ii) After laying and preparing the joint.

Following test shall be taken after completing the installation

- a) Cable continuity.
- b) Earth continuity.
- c) Insulation resistance.

1000 V merger shall be used for testing 3-phase 415-volt system.

## POINT WIRING

### 1. CONDUITS: ACCESSORIES AND JOINTS:

All conduits shall be HG MS conduits 165 WG up to 25 MM dia and 145 WG above size. All conduit accessories shall be screwed type and conduits shall be joined by means of threaded coupling only. Check nuts shall be provided at all joints for tightening and sealing. Ends of conduits shall be coated with plastic adhesive.

All conduits and accessories shall be painted with 2 coats of Red Oxide before installation and accessible parts of conducting after installation shall be painted with enamel paint to match the wall paint. Capacity of conduits is separately given. In case of rigid PVC conduits, the conduits shall be made using special adhesives used for pressure pipe joints.

### 2. SURFACE CONDUITING:

The surface conduits shall be fixed with help of 20 SWG saddles on spacers at every 600 MM for vertical run and every 450 MM for horizontal run. The runs shall be straight with suitable sleeves for structural member crossing at the time of costing.

In case of false ceiling the conduits shall run on walls/ trusses above false ceiling level as far as possible. The connections between such runs and fixtures shall be made with flexible conduits.

### **3. CONCEALED CONDUITING:**

the concealed conduit work shall be carried out along with construction of walls prior to plaster. The work covers chasing walls if necessary fixing the conduits, boxes, accessories, redoing the damaged surface. The conduits shall be laid such that they are little below the brick level to avoid cracks. Elbow shall not be used and bends shall be avoided as far as possible using offsets. Pull boxes shall be provided at suitable locations. Deep junction boxes only shall be used in slabs.

The pull and junction boxes shall not be clustered at one place and shall be so arranged that they should not be easily seen from heavy movement areas. All cases shall be taken to secure joints and boxes in place. All vertical runs shall be sealed at top.

### **4. SWITCH BOARDS :**

The switchboards unless specified in item shall be MS fabricated from 16 SWG sheet steel with all sides except top. Top plate fixing arrangement shall be provided at all corners with tapped holes. At least 1 No. earth stud shall be provided. Switchboard shall be at least 60 MM. Deep. Switch board shall be painted with 2 coats of Red Oxide primer from inside and outside. In case of surface mounted boards 2 coats of enamel paint of suitable shed shall be given to accessible sides.

The switch plate shall be 2 MM thick while phenol bonded sheet unless specified and shall be fixed with completed screws with cap washers.

### **5. SWITCH & SOCKETS :**

All 5/15 a switches shall be piano type 240 V grade of approved color and of same shed throughout. 5A Sockets shall be 3 pin and 15 SMP sockets shall be 5 pin (Universal). All switches shall be provided one phase wires only. For power points more than 10 AMP capacity 30 AMP flush type DP switches shall be provided.

### **6. WIRES AND WIRING INSTALLATION:**

All wiring shall be carried out with PVC insulated, 1100 V grade multi strand copper conductor wires of specifies sizes.

The conduits shall be ventilated and drained before drawing the wires.

He circuit wires shall be laid in looped formation with suitable termination arrangement in junction boxes. T joints shall be used. No joints shall be allowed in drawn lengths. Crimping type lugs shall be used for switch interconnections. Color codes shall be followed :

Separate earth wire of same class and suitable size shall be drawn along with other wires. Mains and sub mains shall be drawn in separate conduit of adequate capacities with separate earth wires. All circuit wires shall be meggered for continuity and insulation resistance.

### **7. WIRING CLASSIFICATION :**

- |      |   |   |
|------|---|---|
| i)   | Lighting Sub Mains                          | : 2*2.5 + 1*1.5 Sqm. wires.   |
| ii)  | Light/ Fan/ 5A/ Ex Fan Pts.<br>Call Bell    | : 2*1.5 + 1*1.5 Sqm. wires.   |
| iii) | 15 A Point                                  | : 2*2.5 + 1*1.5 Sqm. wires.   |
| iv)  | As above but looped                         | : 2*4.0 + 1*2.5 Sqm. up to 1 <sup>st</sup> point.<br>2*2.5 + 1*1.5 Sqm. for Looped point. |
| v)   | 1 Tone window A/A & 20A<br>Power Point.     | : 2*4.0 + 1*2.5 Sqm wires.  |
| vi)  | Window A/C 1.5 Tone<br>Geyser & 30 AMP Pts. | : 2*6.0 + 1 *2.5 Sqm. wires.  |



## 8.CONDUIT CAPACITIES:

WIRE SIZE	1.5	2.5	4.0	6.0	10.0
CONSUIT SIZE					
19/20 MM	4	3	--	--	--
25 MM	5	4	3	2	--
32 MM	8	6	4	4	3
40 MM	12	8	6	5	4

## 9. MOUNTING HIGHTS (ABOVE FFL): Approximate

- i) Light Points on Walls : 2250 MM.
- ii) Switch boards : 1200 MM
- iii) Socket outlets : 1200 MM/ 300 MM
- iv) Telephone Sockets : 900 MM
- v) Geyser outlets : 1500 MM.
- vi) Exhaust Fan outlet : Switch at 1500 MM Socket near Ex. Fan.
- vii) A/C Point : Bellow window sill / near A/C Equipment.

## 10.00 ADDITIONAL SPECIFICATION

All woodwork which is not visible will be painted with approved fire retardant paint with resistant properties (Viper or equal) as per manufactures specifications. This shall be done before it is installed in position. No covering over the timber is permitted till the timber is checked and certified by the Engineer-in-charge.

All steel work shall be painted with one coat of primer and two coat of first quality enamel paint of approved make. The priming coat shall be done before installation.

Painting and Finishing shall be carried out on wood and steel as described in description of items whether specifically or not in the item shall be done by the contractor without any extra cost.

### 11.0 MANDATORY TEST

11.1 The contractor is required to carry out test for different materials and items as per CPWD specification and IS Code from a reputed test house and no extra shall be paid on this account.

### 12.0 WATER & ELECTRICITY

12.1 The contractor shall arrange water and electricity at his cost as required to carry out the work no extra payment will be made for the same.

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 Commercial GRADE and IS 303. The plywood so manufactured shall stand guarantee for borer resistant, termite resistant, Moisture resistant and fungus 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 1.5mm 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 leveled and smooth surface so prepared with two/ all required coats of lupum, 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 0.8mm 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 Architect.
9	12mm thick soft boards shall be used for display board only, duly covered with upholstery costing in a range of Rs.150.00 to Rs 200.00 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 M.T.W. of 4" x 1.5" size and a stand for CPU, made with 18mm 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 Architect for the purpose otherwise shall not do.

Any discrepancy in the site conditions shall be brought to the notice of the Architect.

16	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.
17	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.
18	Average height shall be considered for the surface area measurements of multi-level partitions, storage units and soft boards.
19	The site being working premises, work shall be 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.

**SIGNATURE OF THE CONTRACTOR WITH SEAL**

**DATE:**

**LIST OF APPROVED MANUFACTURERS / NATURAL SOURCES OF MATERIALS TO BE USED IN THE INTERIOR FURNISHING WORKS SUBJECT TO THE APPROVAL OF SAMPLES BY THE EMPLOYER/ ARCHITECT**

APPROVED BRANDS / MAKES OF MATERIALS Brands are to be used in the sequence mentioned.		
SR NO.	MATERIALS	BRANDS
<b>Furniture works</b>		
1	PLYWOOD	Duro/ Monarch / Greenply(optima red)/ Euro / Durian / Goel / Samrat / Donear / Kitply / True wood / Mayur /Century / Uniply / Archid/Guardian
2	LAMINATES	Formica / Donear / Sundek / Greenlam / Royal touch / Durian / Archid / Bloom / Century / Merino / Kitmica / Delta / VIR / Heritage / Decolam - Decolite / National
3	VENEERS	Monarch / Greenply / Duro / Euro / Durian / Goel / Kenwood / Samrat / Donear / Kitply / True wood / Hunsur / Sharon / Archid / Prateek / Jackson / URO / Century.
4	BINDING MATERIALS	Fevicol / Movico / Araldite / Jivanjhor / Micropure / Vamicol.
5	HARDWARE: LOCKS	Earlbihari /Godrej / Dorset, Hettich, Haffle.
6	SLIDING CHANNELS,	EarlBihari / Efficient Gardgets / Etalica
7	KEY BOARDS WITH CHANNELS	Earl Bihari, Hettich, Haffle.
8	HANDLES, FITTINGS	Kircheff / Dorset / Hatrdwin / Kich,
9	KNOBS	Kircheff /Dorset / Hatrdwin / Kich,
10	LOCKS	Godrej,Dorset.
11	GLASS	Float / Triveni / Saint Gobian / Modi Guard wave free float glass.
12	VERTICAL BLINDS	Vista levlor/ Mac / Marc/Hunter Douglas.
13	LAPPAM/PUTTY (CEMENT BASED)	J.K. / Birla/Asian
14	PAINTS	Nerolac / Asian / Berger / ICI / Jenson & Nicholson /
15	DOOR CLOSERS / FLOOR SPRINGS	Hardwin / Everite / Dorma / Efficient Gadgets.
16	GYPNUM BOARDS & FRAMING	Saint Gobain / Boral
17	GRID CEILINGS	Armstrong / Nittobo / Insula ( Minwool Rock Fibres Ltd)
18	PRELAMINATED SHEETS	Novo pan / Egwood
19	SANITARY FITTINGS	Hindustan / Parryware / Hindware / Plumber ISI marked / Jaguar
20	WATER SUPPLY FITTINGS	Tata / Oswal / Zenith
21	VITRIFIED TILES	Naveen / Asian /Euro / Marbonite / Granolite / Jhonson / NITCO or As Directed By Architect
22	CERAMIC TILES	Asian, Naveen, Somani, Orient, Jhonson or As Directed By Architect
23	CI FITTINGS	Bic / NEKO / NEC,
24	GI VALVES	Zoloto / Rani
25	CEMENT	Ultra tech / ACC / Birla

26	WATER PROOFING MATERIAL	Dr.Fixit / FOSROC
27	PVC FLOORS	Armstrong / Wonder Floor / Bhor Vinyl / Tusker / Carara / LG
28	SCREWS	GKW / Nettlefold
29	PRIMERS	ICI / Asian Paints / Wooderite
30	MELAMINE POLISH	ICI / Asian
31	CORNICES	Boral / India Gypsum.
32	MDF BOARD	NUWUD, GREEN Panelmax Exterior Grade
<b>HARD WARE FOR DOORS UPTO 7'-0"</b>		
1	Glass Door Handles	Doorset SH 12 P SS Hardwyn HPH -141 H Shape 32x450
2	Floor Spring	Dorma BTS-84 Enox EFS 2090
3	Solid Door Handles	Doorset SL OR SS Hardwyn HPH -105
4	Dead locks	Godrej 5426,5427 Model Link 501 Model Hardwyn 455
5	Hinges	Door set SS Bearing Hinge Series 102x76 x2.5x12
<b>ELECTRICAL WORK</b>		
1.	Switches/Sockets	MK India Wrap around / Anchor woods / ROMA
2.	Copper Conductor wires	Finolex / Havelles/ RR Cable
3.	PVC conduits & Accessories	Precision/ Plast Dimond
4.	MS Conduits	AKG /BEC /Vimco /
5.	Metal clad Sockets	MDS /L&T - Hager /Merlingerin /BCH
6.	MCBs /MCB Distribution boards	ABB /MDS Schneider
7.	MCCBs/Switchgear	GE Power / L&T
8.	Cables	Polycab / Havells
9.	Cable Glands	HMI /Comet / Cosmos / Dowell's (Biller India) / Hax Brass (Copper Alloy India)
10.	Capacitor Bank	Epcos /Neptune
11.	Cable Lugs	Dowell's / 3D
12.	MV Panels (PCCs)	Manufacturers with CPRI Test Certificate.
13.	ELRs/CBCT	Prokdv /Nagoba
14.	Measuring Instruments	Conzerv / CMS / EI measure / IME /Larsen & Toubro Nippen /Schneider Electric
15.	Selector Switches	Vaishno / Salzer / Kaycee
16.	Indication Lamps LED (protected type)	Schneider / Vaishno / Binay
17.	Resign cast CTs	AE / Kappa
18.	Telephone Wires	Polycab / Delton /Anchor
19.	Light Fixtures	Philips / Wipro only
20.	Ceiling Fans & Exhaust Fans	Crompton / Havelles/ Bajaj (High Speed Model only)



**NOTE : The contractor shall use only above mentioned material or equivalent make to be approved by the Consultant. All other**

**materials shall confirm to the specifications laid down. The tenderer shall take this into account while tendering rates / prices. The Consultant / Owner has got every right to select any of the above Makes for the Project. However the samples of every material including all fixing accessories shall be got approved by Owner / Consultant before Execution..**

**All wooden members duly finished with two coats of Showcase 2K PU Sealer and one coat of 'Showcase 2K PU Matt' of 'Pidilite' make sprayed after the application of three coats of colour less Anti-termite wood preservatives chemical 'Terminator' of 'Pidilite' product make, till the satisfaction of the Consultant.**

**READ, UNDERSTOD AND ACCEPTED**

**SIGNATURE OF THE CONTRACTOR WITH SEAL**

**DATE:**

## DECLARATION

I/We have inspected the site for **(Interior & Electrical work of RO)** of Oriental Insurance Company and I/We have made me/ us fully acquainted with the local conditions in and around the sites of works and Lay out drawings of works, drawings of each items etc. complete.

I/We hereby declare that I/ We have carefully gone through the conditions laid down in the Notice Inviting Tender, General notes, General Conditions of Contract, Special conditions, Schedule of approximate quantities and rates , Form of Agreement, General Specification, Approved manufacturers/ natural source of materials (i.e. all parts of Technical bid), Technical Specifications of schedule of quantities (i.e. all parts of Price bid), and clearly understood all the same and on the basis of the same I/ We have quoted our rates in the Schedule of Quantities (i.e. Price-Bid, Part-II Tender document) attached with the tender documents.

I/ We hereby declare that, I/We will remove all the existing partition/tables/ counters/ false ceiling/flooring, wiring, cabling, electrical fixtures, DB & making temporary arrangement as required without claiming extra cost for the same.

I/ We hereby declare that, in particular during execution of all works at site; it will be my/ our sole responsibility to strictly adhere to/ meticulously follow the General Specification, Approved manufacturers/ natural source of materials, Technical Specifications of schedule of quantities, all drawings of layout and items.

For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Architect for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the employer as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

I/ We hereby declare that I/ We shall obtain necessary drawings of items from employer in time and also shall uniformly maintain such progress as may be directed by the employer to ensure completion of same within the target date/ time as mentioned in the tender document.

Date:

**Signature and seal of Contractor/  
Tenderer**

### NOTE:

ALL TYPE OF TECHNICAL CLARIFICATIONS (IF ANY) SHOULD FORM A PART OF TECHNICAL BID ONLY. ANY CLARIFICATIONS SOUGHT AFTER OPENING OF THE TENDERS WILL NOT BE ENTERTAINED AT ANY COST