

# **BANK OF MAHARASHTRA**

HYDERABAD ZONAL OFFICE, 2<sup>ND</sup> FLOOR,  
**BANK STREET, KOTI**  
**HYDERABAD-500001**

## **TENDER SCHEDULE.**

**( TWO BID SYSTEM )**

### **Part 1. Technical Bid.**

#### **INTERIOR FURNISHINGWORKS**

**OF**

**ZONAL OFFICE & SULTAN BAZAR BRANCH  
AT KOTI, HYDERABD**

#### **CONSULTANTS**

#### **ANCHURI DESIGN WORLD**

ARCHITECTS – INTERIOR DESIGNERS

1-11-248/3, BEGUMPET

HYDERABAD-500016, ANDHRA PRADESH.

TLFX.: - 040 – 27767197 CELL : 09246547272

E-MAIL – ravianchuri@yahoo.co.in

Last date for submission of Sealed Tender: 15.00 Hrs. (IST) on 05.04.2016  
Opening of Sealed Tenders( Technical Bid ): 15.30 Hrs. (IST) on 05.04.2016

**Tender to be submitted to:**

**THE ZONAL MANAGER,  
BANK OF MAHARASHTRA,  
2<sup>nd</sup> FLOOR, BANK STREET, KOTI  
HYDERABAD-500001. (TS)**

**Tel : 040- 24755080 / 24757005/ 24761858.**

Contractor **must provide below** :

**E- MAIL id :**

**Contact No:**

Postal address : \_\_\_\_\_

**TENDER SCHEDULE****PART 1 TECHNICAL BID ( ENVELOPE-1)****TABLE OF CONTENTS**

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**Note: Duly Signed Technical Bid, EMD, required Work Completion Certificates , Work orders and All other Documents required for Pre-Qualification must be the part of Technical Bid ( Envelope-1 )**

**PART : 2 PRICE BID ( ENVELOPE-2)**

**Envelope –2 ( Price Bid only ) : Duly Filled / Signed with NEAT & READABLE handwriting Price Bid should be submitted in Envelope –2,**

**Note: Overwriting, Calculation mistakes may lead to Disqualification.**

**NOTICE INVITING TENDER (NIT)**

**NAME OF WORK :INTERIOR FURNISHING WORK OF ZONAL OFFICE & SULTAN BAZAR BRANCH AT KOTI, HYDERABAD (TS)**

Sealed tenders are invited for the abovementioned work in **TWO BID SYSTEM** from eligible agencies/contractors/firms.

THE TECHNICAL-BID AND PRICE-BID SHOULD BE IN TWO SEPARATE SEALED COVER WITH THE NAME OF THE WORK AND THE BRANCH AND TECHNICAL-BID / PRICE-BID (AS THE CASE MAY BE) CLEARLY WRITTEN ON EACH SEALED COVERS.

1	Name of the work	INTERIOR WORKS OF ZONAL OFFICE & SULTAN BAZAR BRANCH AT KOTI, HYDERABAD
2	Date and Time where tender forms are available for sale.	From 11.00 AM to 5.00pm on 28.03.2016 Upto 3.00p.m on 05.04.2016 from  The ZONAL Manager, BANK OF MAHARASHTRA, ZONAL OFFICE, 2 <sup>nd</sup> Floor, Bank Street, Hyderabad- 1
3	Time and last date of submission of Tender	Up to 3.00p.m on 05.04.2016
4	Place, Time & Address for submission of tender/contact person /telephone no/email address.	Up to 3.00p.m on 05.04.2016 <b>Address:</b> The ZONAL Manager, BANK OF MAHARASHTRA, 2 <sup>nd</sup> Floor, Bank Street, Hyderabad- 1 Tel : 040- 040- 24755080 / 24757005/ 24761858.
5	Date, Time and Place of opening of tenders.	Technical bid on 05.04.2016 at 3:30PM and Price bid after Tech. bid scrutiny. Place & contact person: The ZONAL Manager, BANK OF MAHARASHTRA, 2 <sup>nd</sup> Floor, Bank Street, Hyderabad- 1 Tel : 040- 040- 24755080 / 24757005/ 24761858.
6	Quantum of Earnest Money Deposit (EMD)	Rs 1,26,000/- DD-DRAWN IN FAVOUR OF The Zonal Manager, BANK OF MAHARASHTRA PAYABLE AT HYDERABAD
7	Quantum of Security Deposit	1. INITIAL SECURITY DEPOSIT – 2% of the Tender value including EMD 2. FSD/Retention Money- Deductable in running bills @ 10% of the value of work and Total deductable as per terms of the tender document.
8	Estimated cost	<b>Rs 63.22 Lakhs</b>
8	Terms of payment of Bills, if any	Minimum value of running bill is Rs 12 Lakhs ( maximum 3 running bills )
9	(Penalty clause) Liquidated Damages	In case of delay a penalty @ the rate of 1% of the value of the work per week subject to a maximum of 10% (as per the value of work) would be strictly imposed.
11	Stipulated time for completion of	SIX (06) WEEKS

	<b>the work/supply.</b>	
<b>12</b>	<b>Validity period of the tender.</b>	Three (3) Months.
<b>13</b>	<b>Taxes</b>	Rates quoted should include all Taxes, Octroi, vat other charges like Transportation etc. However I.T ,and WCT will be deducted at source.
<b>13 (a)</b>	<b>Income tax</b>	Income tax deduction at source would be by the bank before releasing any payment to the contractor.
<b>13 (b)</b>	<b>WAT &amp;WCT</b>	The VAT/ WCT as applicable in the State of TELANGANA should be included in the quoted rates no extra amount towards VAT / WCT would be paid by the bank. The necessary tax deduction at source, as applicable rate would be initiated by the bank before releasing any payment to the contractor. The agency should have VAT/WCT Registration. No bills will be paid without Registration.
<b>13 (c)</b>	<b>Service Tax ( NEED TO CHECK IF WE DEDUCT THE SERVICE TAX FROM THR SOURCE )</b>	The service tax at the applicable rate shall be included in the quoted rate no extra amount towards service tax would be paid by bank. As regards Service Tax 40% of the total bill value would be considered towards the Service Tax payable component over which the Service Tax rate would be calculated to derive the total Service Tax liability. Out which the said liability 50% of the said liability would be deducted from the bill payable and paid by the bank to the Department directly and balance 50% would be the liability of the contractor. However, Contractor should have Service Tax Registration. No bills will be paid without Registration.
<b>14</b>	<b>Electronic Payment</b>	Electronic payment shall be preferred. All the contractor must furnish details such as 1) Name of the their bank 2) Name of their branch 3) Account number 4) Name of the account holder as in the bank account 5) IFSC code of the branch 6) Sales Tax regn. number 7) PAN number.
<b>15</b>	<b>Any additional Information</b>	-----

Dully filled-in Tender Document (Technical Bid and Price Bid) shall bear the signature and seal of contractor on all pages (otherwise the tender shall be summarily rejected) and such tender document shall be submitted in two separate sealed cover addressed to The ZONAL Manager, BANK OF MAHARASHTRA , 2<sup>nd</sup> Floor, Bank Street, Hyderabad- 1

on or before the Date & Time stipulated above.

**The D.D./ B.C. of E.M.D. shall be submitted along with the Technical Bid in the sealed cover (otherwise the tender shall be summarily rejected).** The contractor has to (must) provide their E-mail id, contact nos. and postal address on both bid documents. Henceforth, all official communication from bank shall be through E-mail and SMS also.

The name of work as “TECHNICAL BID FOR INTERIOR WORK OF ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD”& “PRICE BID FOR INTERIOR WORK OF ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD” should be clearly super scribed on respective sealed cover of technical bid and price bid. Content/ paper/ sheet/ drawing should not be either altered or detached from the original tender document issued to or downloaded by the contractor.

The tender shall be summarily rejected, if any one of the above said requirements has not been complied with.

The bank reserves the right to cancel or postpone or modify the tenders at any stage without assigning any reason.

**ZONAL MANAGER**

HYDERABAD

**ZONENOTICE INVITING TENDER**M/S \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

E-mail id:

Contact nos.:

Dear Sirs,

**TENDER FOR INTERIOR WORKS OF ZONAL OFFICE & SULTAN BAZAR BRANCH  
AT KOTI, HYDERABAD (AP)**

Sealed tenders are invited in two bid system i.e. Technical bid (Cover1) and Price bid (Cover2) for INTERIOR WORKS OF **ZONAL OFFICE & SULTAN BAZAR BRANCH** AT KOTI, HYDERABAD (AP) are invited from reputed contractors who are eligible to tender as per pre-qualified criteria mentioned in the tender document.

1. Contract documents consist of Pro-forma for pre-qualification, detailed plans, technical specification, schedule of quantities of the various classes of work to be done, and the set of 'conditions of contract' to be compiled with by the person whose tender may be accepted. The document

Tenders which should always be placed in two envelopes, with the name of the project written on the envelopes will be received till 05/04/2016 up to 3 PM in the office of ZONAL Manager, **2<sup>nd</sup> Floor, Bank Street, Hyderabad- 1**. Envelope-1 should contain Earnest Money Deposit, Pre-qualification forms, conditions of contract and technical specifications. Envelope-2 should contain Price bid. The envelope-1 will be opened on 05/04/2016 at 3.30 PM. The committee constituted for the purpose shall scrutinize the documents furnished in envelope-1, and pre-qualify suitable contractors. The price bid of the pre-qualified contractors shall alone be opened and the date and time shall be intimated separately. The decision of the committee regarding pre-qualification of contractors shall be final.

2. The contractors should quote in figures as well as in the words the rates, and amount tenders by them. The amount for each item should be worked out and the requisite totals given. Rates quoted by the contractor in item rate tender in figures and words shall be accurately filled in so that there is no discrepancy in the rates, figures and words. However, if a discrepancy is found, the rates which correspond with the amount worked out by the contractor shall be taken as correct. If the contractor does not work out the amount of an item or it does not correspondent with the rate written either in figure or in words then the rates quoted by the contractor in words shall be taken as correct. Where the rates quoted by the contractor in figures and in words tally but the amount is not worked out correctly the rates quoted by the contractor will be taken as correct and not the amount.

3. The tender document must be filled in English and all the entries must be made by the hand and Written in ink. If any of the documents are missing or un-signed, the tender shall be considered invalid.
4. Earnest money amounting to Rs 1,26,000/- is to be deposited with the tender in the form of Demand Draft / Banker's Cheque payable at Hyderabad and drawn in favor of The Zonal Manager, BANK OF MAHARASHTRA, otherwise the tender is liable for rejection.
5. The successful tenderer will have to pay an amount of initial security deposit/Performance security, which shall be 2% of the accepted value of the tender including the EMD, by means of D.D. in favor of The Zonal Manager, BANK OF MAHARASHTRA, payable at Hyderabad. The initial security deposit is to be paid by the Contractor to Bank within 10 days of intimation to him of the acceptance of the tender. The initial security deposit will be invested with the bank for the duration of the contract period and will be returned to the contractor without any interest, after virtual completion of work. No interest is allowed on the above said security deposit.
6. The acceptance of a tender will rest with the Competent Authority, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled, or are incomplete in any respect are liable to be rejected.
7. All compensation or other sums of money payable by the Contractor to Clients under the terms of this contract may be deducted from the security deposit, or from any sum that may be or may become due to the Contractor on any account whatsoever and in the event of the Security Deposit being reduced by reasons of any such deductions, the Contractor shall within 7 days of being asked to do make good in cash or by cheque any sum which have been deducted from his security deposit.
8. Tender containing any condition leading to unknown / indefinite liability, are liable to be summarily rejected.
9. Canvassing in connection with tenders is strictly prohibited and the tenders submitted by the contractors who resort to canvassing will be liable to rejection.
10. The tenderer should quote their (own) rates for undertaking the work.
11. All taxes including Sales Tax, Vat, Octroi or any other statutory obligation / tax on material or on finished works like work's contract tax, turn over tax etc. in respect of this contract, as applicable, shall be payable by contractor including transportation and TA / DA of the workers at site and the Bank will not entertain any claim whatsoever in this respect

12. Income Tax will be recovered @ 2 % plus surcharge or as applicable as per Government Rules
13. Works Contract Tax will be recovered@ 4.0% plus surcharge or as applicable as per Government Rules
14. Time is the essence of the contract. The work should be completed in **6 WEEKS** from the date of the work order issued to the contractor to commence the work. The successful Contractor will have to give CPM/PERT chart of various activities of works to be done so that the work gets completed within the stipulated time. The chart shall be submitted within 7 days from the date of acceptance of the tender.
15. Tenders for works shall remain open for acceptance for a period of 90 days from the date of opening of tenders. If the Tenderer withdraws his tender before the expiry of the said period or makes any modifications in terms and condition of the tender which are not acceptable to the Bank, then the bank without prejudice to any other right or remedy is at liberty to forfeit the earnest money.
16. It will be obligatory on the part of the tenderer to tender and sign the tender documents for all the component parts and that, after the work is awarded, he will have to enter into an agreement for each component with the competent authority in the bank.
17. The tenderer, apart from being a competent contractor must co-ordinate himself with the agencies of appropriate class who are eligible to tender for (I) Electrical (II) Air – Conditioning etc.
18. The tenderer should visit the site to ascertain the working conditions and local authority regulations / restrictions if any and other information required for the proper execution of the work.
19. **The work may be carried out on any floor level as per site condition. Please note that materials and machines are required to be carried on head load and the same must be accounted in the costing. Please note that no separate cost shall be allowed for head load.**
20. The quantities of various items given in the schedule of quantities are approximate. The quantities of work may vary at time of allotment / execution of work. Bank reserves the right to omit / delete any item(s) of work from the schedule at the time of allotment / before. Contractor will be paid for the actual work done at the site duly verified by the concerned official of the bank.
21. The unit price shall be deemed to be fixed price. In case of extra items, a record of labour charges paid shall be maintained and shall be presented regularly to the Employer's for checking. The settlement will be made based on figures arrived at jointly and taking unit price given in the contract assigned to the successful Tenderer. In case of



extra items where similar or comparable items are quoted in the tender, extra rates shall be based on tender rates.

22. If the rate quoted by the contractor for any item / items are not workable or abnormally lower than the market rate, the bank may demand Bank guarantee from the contractor for satisfactory completion of these work. The bank guarantee amount will be not less than 50% of the estimated amount of the items for which the rates are not workable or abnormally low. This bank guarantee will be released after completion of these works (unworkable and abnormally low rated items) to the satisfaction of the bank.
23. The contractor shall submit the gant chart/ bar chart/ pmpas well as shall submit the insurance cover for the work in the form of CAR policy within seven (7) days from the acceptance of work order.
24. The work has to be started within 7 (Seven) Days from the date of receipt of work order/ mark out at site; whichever is later. In case of work not being started within this stipulated period, the bank reserves the right to cancel the work order duly forfeiting the Earnest money deposit
25. No employee of the Bank is allowed to work as a contractor for a period of 2 years of his/her retirement from Bank Services without previous permission of the Bank. This contract is liable to be cancelled, if either the contractor or any of his employees is any time to be such a person who had not obtained the permission of Bank as aforesaid before submission of the tender or engagement in the contractor's service.
26. Contractor should get approval of the samples of materials in advance with Bank's Engineer before use of the same in the work
27. Bank has the right to offer the contractor to modify the old material wherever/ whenever necessary instead of new supplies
28. The quoted rate should be inclusive of materials, labour, fixtures, transportation, installation, all taxes, wastages, Octroi, machinery, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work  
Dully filled-in Tender Document (Technical Bid and Price Bid) shall bear the signature and seal of contractor on all pages (otherwise the tender shall be summarily rejected) and such tender document shall be submitted in two separate sealed cover addressed to The ZONAL Manager, BANK OF MAHARASHTRA , 2<sup>nd</sup> Floor, Bank Street, Hyderabad- 1 on or before the Date & Time stipulated above.
29. The Envelope-1 should contain Earnest Money Deposit (otherwise the tender shall be summarily rejected) in form of DD Drawn in favor of ZONAL Manager, BANK OF MAHARASHTRA, payable at Hyderabad, Pre-qualification forms, conditions of contract and technical specification and the Envelope-2 should contain price bid only.
30. The name of work as **“TECHNICAL BID FOR INTERIOR WORK OF ZONAL OFFICE & SULTAN BAZAR BRANCH AT KOTI, HYDERABAD”** & **“PRICE BID FOR INTERIOR WORK OF ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD”** should be clearly super scribed on respective sealed cover of technical bid and price bid.

No paper/ sheet/ drawing should be altered in or detached from the tender documents downloaded/ issued to the contractor (otherwise the tender shall be summarily rejected).

31. The tenders shall summarily rejected, if any one of the above said requirements has not been complied with.
32. The Bank will not be bound to accept the lowest tender and reserves the right to accept or reject any or all the tenders without assigning any reason whatsoever
33. The contractor should fulfill the labour regulation guidelines stipulated by the governments
34. No advance payment will be granted for the works proposed
35. Period of taking up the final bill will be one month from/ after satisfactory virtual completion or the date of submission of the final bill whichever is later.
36. The Initial Security Deposit shall be released after satisfactory virtual completion and certification of final bill. The F.S.D./ Retention money shall be released after defect liability period (12 months) provided all defects are attended satisfactorily in accordance with by the contractor.

**ZONAL MANAGER  
HYDERABAD ZONE**

**READ, UNDERSTOOD AND ACCEPTED**

**SIGNATURE OF THE CONTRACTOR WITH SEAL  
DATE:**

**CRITERIA FOR PRE-QUALIFICATION**

The eligibility criteria for pre-qualification of contractors are as under:-

- i. **Average Annual financial turnover during the last 3 years, ending 31<sup>st</sup>MARCH 2015 should be at least 30% i.e. Rs. 20 Lacs**

**And**

**Experience of having successfully completed similar works during the last 4 years, should be either of the following**

- ii. **Three similar completed works costing not less than 40% i.e. Rs. 25.30 lacs  
OR**
- iii. **Two similar completed works costing not less 50% i.e. Rs. 31.60 lacs  
OR**
- iv. **One similar completed work costing not less than 80% i.e. Rs. 50.60 lacs**

**IMPORTANT NOTE**

1) The contractor shall submit authentic documentary proof in support of financial turnover of them/ their firm. The contractor shall submit dully certified copies of (1) Income Tax return filed (2) Annual Balance Sheet Report and (3) Annual Profit & Loss Account; all of them for last three (3) preceding years. The contractor shall be summarily disqualified in case of non-submission of any one of above.

2) Similar works is defined as the Interior and Civil works involving providing and fixing of counters, work stations, partitions, false ceilings, painting/polishing, Brick wall, Flooring, allied works etc. Similar works should have been carried out for BANKS / Offices of Central/ State Government Departments/ Public Sector Undertakings etc.

3) The contractor shall submit authentic documentary proof in support of satisfactory completion of similar works during the last 4 years. The contractor shall be summarily disqualified in case of non-submission of the bonafied experience certificates.

4) The contractor shall submit true copy of Work completion/ experience certificate issued by competent authority. Work Orders / Work award letters/ bills will NOT be accepted. Only those works shall be considered for evaluation for which original certificates issued by the client or it's copy dully certified by a Gazetted Officer is attached.

4) The Contractor should be having adequate manpower, equipment etc.

5) The contractor having any added certificate from any competent authority for the products quoted will have added advantage.

6) Similar Works means : The Experience certificate Must have be attached with Details of the work done , the work Experience is MUST in the Similar work like Interior Furnishing of Banks / Offices.

**PRE-QUALIFICATION -- PROFORMA-I****PARTICULARS OF THE CONTRACTORS TO BE FURNISHED FOR THE PURPOSE OF  
PRE-QUALIFICATION**

1.	Name of Tenderer	
2.	Address	

3.	Year of establishment	
4.	Status of the Tenderer (Limited Company/ Proprietary Firm/ Individual)	
5.	Name of Directors / Partners / Proprietor	i)  ii)  iii)
6.	Whether Tenderer is registered with the registrar of companies / registrar of firms. If so, mention number and date.	
7.	Whether any Solvency Certificate is issued to you by your bankers. If yes, please enclose.	
8.	Whether you are registered for sales tax purposes. If so, mention number and date. Furnish also copies of sales tax clearance certificate.	
9.	Whether you are an assessee of income tax. If so, mention permanent account number (PAN). Furnish copies of income tax clearance certificate.	
10.	Specify the maximum value of single work executed in a year in the country.	
11.	Have you ever not completed any work awarded to you? If so, give name of project and reasons for not completing work.	
12.	In any of projects, does anytype of penalty was imposed on you for delay or for any other reason? If yes, please give details.	
13.	Status and details of disputes / litigations / arbitration, if any, you had in any of your projects.	i)  ii)

**14. FINANCIAL DETAILS****ANNUAL TURNOVERS FOR THE LAST THREE YEARS**

Furnish certified copies of audited balance sheet and profit & loss account (audited) for the last three preceding years.

S.No.	Year	Turnover from Interior and Civil Work	Turnover from all other sources (in lakhs)	Remarks
1	2012-13			
2	2011-12			
3	2010-11			

## 4.1 List your sources of finance

- Own resources
- Bank credit
- Other sources specifies if any?

## 4.2 Name and address of Bank from whom reference can be obtained

Name :

Address :

Ph.

**Note :**

1. Please attach certified copies of the latest ITCC, Balance Sheet and Profit & Loss account statement to support the information furnished, failing which your firms will be summarily disqualified.
2. Where copies are required to be furnished, copies are to be certified preferably by the concerned agencies or a Gazzated Officer.

3 In case of joint venture, the information is to be furnished by both the partners.

4. Please attach certified Certificate of financial Soundness by Bank.

5. Additional sheets may be used for providing information and the same shall be signed and stamped by the Tenderer.

**SIGNATURE OF THE CONTRACTOR WITH SEAL****DATE:****PRE-QUALIFICATION -- PROFORMA-II****EXPERIENCE PROFILE****DETAILS OF SIMILAR WORKS AND ALL WORKS COMPLETED IN LAST SEVEN YEARS**

S. N	Description of the Work	Name and	Contract No.	Date of award	Stipulated date of	Actual date of	Value of complete	Reasons for delay	Penalty if any
------	-------------------------	----------	--------------	---------------	--------------------	----------------	-------------------	-------------------	----------------

o.	address of the Employer	and date	of work	completion	completion	d work (in Lakhs)		
1.								
2.								
3.								
4.								
5.								
6.								
7.								

**Contractor must enclose the work completion letter or certificate issued by authorized and competent officer as proof of having completed the work failing which the tender will be summarily rejected. Any other letter such as work order copies, running bill advises, architects letters etc shall not be accepted as proof of having completed the works.**

**NOTE:**

1. Tenderer must attach copies of Completion Certificates issued by the Client. Work Order will not be considered.
2. Only those works shall be considered for evaluation for which original certificates issued by the client or it's copy dully certified by a Gazzated Officer is attached.
3. Additional sheets may be used for providing information and the same shall be signed and stamped by the Tenderer.

**SIGNATURE OF THE CONTRACTOR WITH SEAL**

**DATE:**

**RESOURCES OF PERSONNEL**

DETAILS OF SKILLED AND TRANINED MANPOWER INCLUDING ENGINEERS/  
SUPERVISORS/ TECHNICAL STAFF (IF ANY) PRESENTLY EMPLOYED

				<b>Total</b>	
--	--	--	--	--------------	--

S.No.	Name	Qualification	Designation	Experience (in years)	Remarks
1					
2					
3					
4					
5					
6					
7					
8					
9					

Note:

In case of Joint venture, the information is to be furnished by both the partners.

**SIGNATURE OF THE CONTRACTOR WITH SEAL**

**DATE:**

DETAILS OF ENGINEERS AND TECHNICAL STAFF PROPOSED TO BE DEPLOYED ON  
THE PROJECT ALONGWITH BIO-DATA OF KEY PERSONNEL

S.No.	Name	Qualification	Designation	Total Experience (in years)	Remarks

1					
2					
3					
4					
5					
6					
7					
8					
9					
10					

Note :

Tenderers are also required to attach the complete organization chart of the Engineering and Technical Staff proposed to be deployed on the project.

**SIGNATURE OF THE CONTRACTOR WITH SEAL**

**DATE:**

**FROM OF SUBMISSION OF TENDER**  
(To be filled by the tenderer)

The ZONAL Manager  
BANK OF MAHARASHTRA,  
**2<sup>nd</sup> Floor, Bank Street, Hyderabad- 1**

Dear Sir/s,



Ref: TENDER FOR INTERIOR WORKS OF ZONAL OFFICE & SULTAN BAZAR  
BRANCH AT KOTI, HYDERABAD (TS) .

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 do here by undertaken to execute and complete the whole or part of the work (as desired by you) at the respective rates quoted.

I/ We are depositing a sum of Rs1,26,000/- (**Rupees One Lakh Twenty Six thousand only**) as earnest money deposit by way of demand draft drawn in favour of The Zonal Manager, Bank of Maharashtra.; payable at Hyderabad; along with this tender for due execution of the work at my/ our tendered rates.

In the event of this Tender being accepted I/ We agree to enter into the agreement and submit the declaration on requisite non-judicial stamp papers as and when required and execute the contract according to your form of Agreement etc., in default whereof, I/ We do hereby bind my-self / ourselves to forfeit the aforesaid deposit.

In the event of this Tender being accepted I/ We agree to obtain the labor license and the CAR insurance policy and deposit the balance E.M.D. amount and adhere/comply to all other instructions as given in Technical bid and Price bid of the Tender document.

I / We further agree to complete the work included in the said schedule of quantities within THREE MONTHS time from the date of the work order issued to commence the same.

Date of commencement shall be either one week from the date of work order issued to the contractor or the date on which mark out of work at site has been given to contractor; whichever is later.

I / We agree not to employ sub-contractors other than those that may be approved by Employer.

I / We agree to pay General and Sales Tax (State and Central), Excise and Octroi duties, insurance charges and all other taxes including works contract extra, turnover tax, VAT etc as prevailing from time to time, on such items for whom same is to be levied by/ for the government, and the rates quoted by me / us are inclusive of all the same.

Yours Faithfully,

Signature of Witness:

Contractor's Signature \_\_\_\_\_

1.

Name : \_\_\_\_\_

2.

Address: \_\_\_\_\_

3.

## **GENERAL NOTES**

### **1. PROCEDURE OF FILLING AND SUBMISSION OF TENDER**

- i) The tenderer should quote their rates in figures and words where the quantities have been indicated in the relevant items of the schedule of quantities, failures to do so may invalidate the tender. Erasing or over writing shall not be allowed. Corrections in the tender should be avoided if this becomes unavoidable, the entire rate (and not a portion only) shall be scored out and

signed (not simply initiated) by the tenderer as token of such cancellation. A fresh rate in specified manner shall then be correctly written.

- ii) In the event of the tender being submitted by a firm, it must be signed by a member or members of the firm having legal authority to do so, and if called for, the legal documents in support thereof must be produced for inspection and the same in the case of the firm carried out by one member of a joint family. It must disclose that the firm is duly registered under the India Partnership Act. Any tender signed by a member not holding a power of attorney shall be treated as informal.
- iii) All corrections are to be initialed.
- iv) The tenderer is to quote the rate in ink both in words and figures in English. In case of any variation, the rates quoted in the words in the "Original" copy of the tender shall only be valid. The tender shall be clearly and legibly written and whole writing must be by the hand of the person signing the tender and with the same pen and ink. Failure to do so may invalidate the tender.

The employer reserves to itself the right to accept the lowest or any tender or split up and distribute any items of work to any specialist firm or firms without assigning any reason. The employer reserves the right to split up and distribute the work to more than one tenderer, if necessary. Person tendering shall submit and return together with his tender, this condition of contract, specifications and the priced schedule of quantities and all set of papers signed on all the pages in a sealed cover. Signature will be deemed to be the acceptance of the contents of these tender papers by the tenderer. All enclosures to the tender shall be in duplicate.

Tenderer shall note that their tenders shall remain open for acceptance for a minimum period of three months from the date of opening the tenders. The tender must be unconditional. Conditional tenders may be summarily rejected.

**Submission of tenders:**

The tenders are to be submitted along with the copy of "General Clause of Contract and Technical Specifications" duly signed by the tenderer in a sealed cover at the office as mentioned in the tender notice. The authorized representatives of tenderer with valid authorization letter will be allowed to present during opening of the tender.

**2. RATES TO INCLUDE:**

While quoting their rates the tenderer should include the following if otherwise not stated herein before.

- a) Necessary cost of taking samples of materials supplied by them for work including plywood, wood/tiles etc., testing of the same at Govt.'s / approved laboratory including transportation, cost of the samples, as and when required.
- b) Submission of test reports of other materials as may be specified by Bank's Engineer.

**3. WORKING HOURS:**

Since the site is a Working/ running branch, the Contractor has to execute the work after working hours, nights & on holidays. No extra payments will be made for the work being done during odd hours.

**4. STORAGE OF MATERIALS:**

The contractor shall not store their materials and debris within the premises other than the work site handed over to him.

#### **5. LABOUR HUTMENT:**

Shelter or stay and other amenities for the labors have to be arranged by the contractor at his own expense and responsibility.

#### **6. IDLE LABOUR:**

In case the work is held up for any site conditions not attributable to the contractors or for any decisions instructions / want of details from Employer or for any of the conditions, the contractor shall be allowed reasonable extension of time by the employer but any claim for idle labour shall not be entertained by the employer. Contractor's quoted rates should include for all such contingencies.

7. The contractor shall engage one competent person at site who shall take the instructions from the Employer. The work should not suffer due to lack of supervision, manpower and materials.

8. The Contractor is required to co-ordinate his works along with other agencies working at site. He has to reimburse any of the damage made by him or any of his representatives for any of the other agency or owner at site.

9. Making of any cut-out / opening for electrical wiring / fitting in any of false ceiling, partition, Paneling, masonry work etc., and providing panels of the same finish in partitions, paneling shall not be paid extra.

10. The contractor is required to fabricate a sample where required, or any item so installed for approval. Any changes made by the Architect/Employer, in the sample to the specifications as mentioned in the tender, shall not be deducted or paid extra. The bulk production of the furniture can only be taken up after the final approval of the sample of the item.

11. The partitions shall be so fixed that all joinery work is in plumb and true in line. The partition frame shall be firmly fixed to the floor and ceiling by using suitable wall plugs and screws.

12. The contractor shall check all dimensions before fabricating and fixing the partitions or any other items in position at site.

13. All measurements given in the schedule hereunder are for the purpose of tender only. Payment will be made on actual measurement of the work done.

14. All measurements shall be as per relevant I.S. standards.

## **GENERAL CONDITIONS OF CONTRACT**

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

### **1. INTERPRETATION**

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

- i. **Employer:** The term employer shall denote **BANK OF MAHARASHTRA** with their 2<sup>ND</sup> Floor , Bank Street, Hyderabad and any of its employees representative authorized on their behalf.
- ii. **Architects / Consultants:** The term Architects shall mean the Architects appointed by the employer for the purpose of preparing detailed drawing, supervision etc. It is the Bank to decide whether to appoint Architect or not and to change the Architect at any stage of work.
- iii. **Contractor:** The term contractor shall mean \_\_\_\_\_ (Name and address of the contractor) and his / their heirs, legal representatives, assigns & successors.
- iv. **Site:** The site shall mean the site where the works are to be executed, i.e BANK OF MAHARASHTRA including any building and erection thereon, allotted by the employer for the contractors use.
- v. **Site Engineer:** Any Engineer appointed from time to time by the Employer and certified in writing to the Architects and the Contractor, to be positioned at site to supervise the work.
- vi. **Drawings:** The work is to be carried out in accordance with drawings, specifications, the schedule of quantities and any further drawings which may be supplied or any other instruction, which may be given by the Employer or Architects during the execution of the work.  
  
All drawings relating to work given to the contractor together with a copy of schedule of quantities are to be kept at site and the Employer / Architects shall be given access to such drawings or schedule of quantities wherever necessary.  
  
In case any detailed Drawings are necessary contractor shall prepare such detailed drawings and / or dimensional sketches therefore and have it confirmed by the Employer as case may be prior to taking up such work.  
  
The contractor shall ask in writing for all clarifications on matters occurring anywhere in drawings, specifications and schedule of quantities or to additional instructions at least 10 days ahead from the time when it is required for implementation so that the Employer may be able to give decision thereon.
- vii. **“The Works”** shall mean the work or works to be executed or done under this contract.
- viii. **“Act of Insolvency”** shall mean any act as such as defined by the Presidency Towns Insolvency Act or in Provincial Insolvency act or any amending status.
- ix. **“The Schedule of Quantities”** shall mean the schedule of quantities as specified and forming part of this contract.
- x. **“Priced Schedule of Quantities”** shall mean the schedule of quantities duly priced with the accepted quoted rates of the contractor.
- xi. **“Contract”** shall mean the Articles of Agreement, the general conditions special conditions, the appendix, the schedule of quantities, specifications and drawings attached here to and duly signed.
- xii. **‘Contract Price’** shall mean the sum named in the Tender subject to such additions thereto or deductions their from as may be made under the provisions hereafter contained.

- xiii. **'Notice in Writing'** or written notice shall mean a notice in writing, type or printed characters sent (unless delivered personally or otherwise provided to have been received) by registered post to the last known private or business address or registered office of the addressee and shall be deemed to have been received when in the ordinary course of post it would have been delivered.
- xiv. **'Net Prices'** any arriving at the Contract amount the Contractor shall have added to or deducted from the total of the items if the Tender any sum, either as a percentage or otherwise, then the net price of any item in the tender shall be the sum arrived at by adding to or deducting from the actual figure appearing in the tender as the price of that item a similar percentage or proportionate sum. Providing always that in determining the percentage or proportion of the sum so added or deducted by the contractor, the total amount of any Prime Cost items and provisional sums of money shall be deducted from the total amount of the Tender. The expression 'net rates' or 'net prices' when used with reference to the contract or account shall be hold to mean rates or prices so arrived at.
- xv. **'Virtual Completion'** shall mean the premises is in the opinion of the Employer fit for occupation.
- xvi. Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice verse where the Context requires.

## 2. SCOPE OF CONTRACT

The Contractor shall carry out and complete the said work in every respect in accordance with this Contract and with the directions of and to the satisfaction of the Employer. The Architect with approval of Employer or Employer issue further drawings and/or written instructions, detailed directions and explanations which hereafter collectively referred to as 'Instructions' in regard to:

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

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

Regarding all factory made products for which ISI marked products are available, only products bearing ISI marking shall be used in the work.

### 3. TENDERER SHALL VISIT THE SITE

Intending tenderer shall visit the site and make himself thoroughly acquainted with the local site condition, nature and requirements of the works, facilities of transport conditions, effective labour and materials, access and storage for materials and removal of rubbish. The tenderer shall provide in their tender for cost of carriage, freight and other charges as also for any special difficulties and including police restriction for transport etc., for proper execution of work as indicated in the drawings. The successful tenderer will not be entitled to any claim of compensation for difficulties faced or losses incurred on account of any site condition.

### 4. TENDERS

The entire set of tender paper issued to the tenderer should be submitted fully priced and also signed on all the pages. Initial / signature will indicate the acceptance of the tender papers by the tenderer.

(Also see general rules and instructions for the guidance of Tenderers)

The schedule of quantities shall be filled in as follows:

- I. The "Rate" column to be legibly filled in 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. In case of any errors / omissions in the quoted rates, the rates given in the tender marked "original" shall be taken as correct rates.

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

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

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

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

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

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

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

**5. AGREEMENT**

The successful contractor will be required to sign agreement in accordance with the draft agreement enclosed and the schedule conditions. The contractor shall pay for all stamps and legal expenses, incidental thereto. However the written acceptance by the employer of a tender will constitute a binding contract between the employer and the person so tendering such formal agreement is subsequently executed.

**6. AUTHORITIES, NOTICES, PATENT RIGHTS AND ROYALTIES:**

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

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

The Contractor shall identify the Employer against all claims in respect of patent rights, designs, trade marks or name or the protected rights in respect of any constructional plant, machine, work or material used for or in connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the Architects, before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, cost and charges of all and every sort that may be legally incurred in respect thereof.

**7. TAXES AND DUTIES**

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

**8. NOTICES AND STATUTORY REGULATIONS:**

The contractor shall give all notices and pay all fees and shall comply all Acts and Regulations for the successful completion of the contract works.

The whole of the work is to be complied with as per the requirements and bylaws of the relevant statutory authorities including contract labour (Regulation and Abolition) Act 1970.

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

The Schedule of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Procedure shall be considered to be approximate and no liability shall attach to the employer for any error may be discovered therein. The Employer reserves the right to execute only a part or the whole or any excess thereof without assigning any reason therefore.

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

**10. OTHER PERSONS ENGAGED BY THE EMPLOYER**

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

**11. EARNEST MONEY AND SECURITY DEPOSITS**

The tenderer will have to deposit an amount of **2% of the estimated cost of work in the form of Bank draft drawn in favour of The Zonal Manager, BANK OF MAHARASHTRA, Hyderabad** 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 tenderers will be refunded without any interest soon after the decision to award the work is taken after the expiry of the validity period of the tender.

The successful tenderer to whom the contract is awarded will have to deposit an initial security deposit/performance security a further sum to make up 2% of the value of the accepted tender including the Earnest Money. The initial security deposit will have to be made within 14 days from the date of acceptance of tender, failing which the employer at his discretion may revoke the letter of acceptance and forfeit the earnest money deposit furnished along with the tender. The initial security deposit shall be refunded to the contractor within 14 days on virtual completion of work.

**Apart from the initial security deposit made as above, retention money(FSD) shall be deducted from progressive running bills @ 8% of the gross value of each running bill subject to following:**

- a) **10.00% on the first Bill of the work.**
- b) **7.5% on the next Bill of the work.**
- c) **5.0% on the Balance amount.**

**Total Security Deposit will be 2% of Tender amount including EMD + FSD (8%)**

The initial security deposit including EMD will be refunded after virtual completion of work without any interest. The Retention Money (FSD) will be refunded after completion of defect liability period of one year from virtual completion of work without any interest.

**12. CONTRACTOR TO PROVIDE EVERYTHING NECESSARY**

The Contractor shall provide everything necessary for the proper execution of the work according to the intent and meaning of the drawings, schedule of quantities and specifications taken together whether the same may or may not be particularly shown or described therein provide that the same can reasonably be inferred there from and if the contractor finds any discrepancies therein he shall immediately and in writing , refer the same to the Employer / Architects whose decision shall be final and binding.

**13.TIME OF COMPLETION, EXTENSION OF TIME&PROGRESS CHART**

The Contractor shall be allowed admittance to the site on the 'Date of Commencement' stated in the Appendix, and he shall thereupon and forthwith begin the works and shall regularly proceed with to complete the same. On or before the 'Day of Completion' stated in the Appendix subject nevertheless the provision for the extension of time hereinafter contained.

If in the opinion of the Employer/Architect the works be delayed:



- a) By force major or
- b) By reason of any exceptionally inclement weather or
- c) By reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners of public authorities arising, than through the Contractor's won default or
- d) By the works or delays of the contractors tradesmen engaged or nominated by the Employer / Architect and not referred in the Schedule of Quantities and / or specifications or
- e) By reason of civil, commotion, local combination of workmen or strike or lock-out effecting any of the buildings traders or
- f) In consequence of the Contractor not having in due time, necessary instructions from the Employer for which he shall have specifically applied in writing ahead of time, giving reasonable time to prepare such instructions, the employer shall make a fair and reasonable extension of time for completion of the Contract works

In case of such strike or lock-out, the Contractor shall as soon as possible give written notice thereof to the employer, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all they may reasonably be required, to the satisfaction of the employer to proceed with the work.

The Contractor on starting the works shall furnish to the Employer / Architect a PERT / CPM Programme for carrying out the work stage in the stipulated time for the approval of Architect / Employer and follow strictly the approved time schedule incorporating charges if any, to ensure the completion of the work in stipulated time. A graph or chart on individual work shall be maintained showing the proportionate progress of work week by week a weekly progress report stating the number of skilled and un skilled laborers employed on the work, working hours done, place, type, and quantity of work done during the period.

The Contractor must inform the employer within 10 days in advance of all drawings and detailed required by him from time to time. The Contractor shall adhere to the approved program and arrange for the materials and labouretc accordingly.

Despite repeated instructions, if the Contractor fails to show proportionate progress of the work, the Architect / Employer may take suitable action and deemed fit without prejudice to any terms and conditions of the contract

#### **14. 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 calculated as given below by way of liquidated damages and not as penalty during which the work remains un-commenced or unfinished after the expiry of the completion date.

If the contractor fails to complete the work by the Scheduled date of completion or within any sanctioned extended time, he will have to pay liquidated damages at 1% of contract amount for each week beyond the date that the work remains incomplete subject to maximum of 10%of the contract value (without extra items).

#### **15. MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS.**

All the works specified and provided for in the specifications 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 specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by the Employer / Architects during the execution of the work and to his entire satisfaction.

All mandatory tests shall be carried out as per CPWD specifications. If required by the Employer / Architects, the contractor shall have to carry out tests on materials and workmanship in approved materials testing laboratories or as prescribed by the Employer / Architects at his own cost to prove that the materials etc., under test conform to the relevant I.S Standards or as specified in the

specifications. The necessary charges, transporting, testing etc., shall have to be borne by the contractor. No extra payment on this account should in any case be entertained.

All the materials (except where otherwise described) stores and equipment required for the full performance of the work under the contract must be provided through normal channels and must include charges for import duties, sales tax, octroi and other charges and must be the best of their kind available and the contractors 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 when so directed by the Engineer and written approval from Employer must be obtained prior to placement of order.**

Any damage (during the work) to any part of the work or to the premises for any reasons due to rain, storm or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

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

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

Contractor should take all precaution to safeguard the flooring and if any damages to the flooring should be rectified by the contractor in the same quality at his own cost.

#### **16. 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 / Architects are not in accordance with specification or instructions, the substitution or proper re-execution of any work executed with materials or workmanship not in accordance with the drawings and specifications or instructions. In case the contractor refuses to comply with the order the Employer shall have the power to employ and pay other agencies to carry out the work and all expenses consequent thereon or incidental thereto as certified by the Employer / Architects shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate, shall relieve the contractor from his liability in respect of unsound work or bad materials.

#### **17. SITE ENGINEER**

The Employer may appoint a Site Engineer or clerk of works who shall be representative of the Employer. The duties of the Employer representative are to watch and supervise the works and to test any materials to be used of workmanship employed in connection with the works. He shall have no authority either to relieve the Contractor of any of his duties or obligations under the Contract, or except those expressly provided hereunder, to order any work involving delay or any extra payment by the Employer or any variation of or in the works.

The contractor shall afford the Employer's representative every facility and assistance for examining the works and materials and checking the measuring time and materials. Neither the Employer's representative nor any Deputy to the Architect shall have power to revoke, alter enlarge or relax the requirements of this Contract, or to Sanction any day-work, additions, alterations, deviations or omissions unless such an authority may be specially conferred by a written order of the Employer.

The Employer's Representative shall have to give notice to the Contractor or his foremen about the non-approval of any work or materials and such works shall be suspended or the use of such material should be discontinued until the decision of the employer/Architect is obtained, the work will from time to time be examined by the Architect or the Employer's representative but such examinations shall not in any way exonerate the Contractor from the obligation to remedy defects which may be found to

exist at any stage of the work of after the same is completed. Subject to the limitations of this cause, the Contractor shall take instruction from the Architect / Employer.

## **28. CONTRACTOR'S EMPLOYEES**

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

The contractor shall not employ labour below the age of sixteen years and who is not an Indian National.

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

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

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

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

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

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

## **19. DISMISSAL OF WORKMEN**

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

**20. 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.

**21. DAMAGE TO PERSONS AND PROPERTY INSURANCE ETC.**

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

The contractor shall reinstate all damages 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 of third parties.

The contractor shall affect 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 Employer and contractor and the policy lodged with the Employer. 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 affected from the very initial stage. The contractor shall also be responsible for any thing, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

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

**22. MEASUREMENTS**

Before taking any measurement of any work the Site Engineer or employer's representative 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 measurement in the manner required by Site Engineer or by the subordinate deputed by him as the case may be is final and binding on the contractor and contractor shall have no right to dispute the same.

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

**23. PAYMENTS**

All bills shall be prepared by the contractor in the form prescribed by the Employer's / Architects. Normally one interim bill shall be prepared each month subject to minimum value as stated in these documents. The bills in proper forms must be duly accompanied by detailed measurements in M-book in support of the qualities of work done and must show deductions for all previous payments, retention money, etc.

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

The Employer will deduct all statutory deductions such as IT, WCT and retention money as described in this document. The refund of retention money will be made as specified.

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

All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removal and taken away and reconstructed, or re-erected or be considered as and admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor 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 affect the contract. The final bill shall be submitted by the contractor within one week of the date fixed for completion of the work or of the date of certificate of completion and payment shall be made within one month from the date of receipt of the bill.

#### **Final Payment**

The final bill shall be accompanied by a certificate of completion from the Employer / Architects. Payments of final bill shall be made after deduction of Retention Money as specified, which shall be refunded after the completion of the Defects Liability Period after receiving the Branch Manager's certificate that the contractor has rectified all defects to the satisfaction of the Employer. The acceptance of the payment of the final bill by the contractor would indicate that he has no further claim in respect of the work executed.

#### **24. VARIATION / DEVIATION**

The tender rates shall be fixed and applicable for any increase or decrease in the tendered quantities. The Employer / Architect can increase or decrease any quantities to any extend or even delete particular item as per the site requirements and the contractor shall not be paid any thing extra on this account. Nothing extra will be paid by the Bank on account of omission / deletion of items or decrease in the quantity of items. The Bank shall not entertain any claim whatsoever from the contractor on this account.

The price of all additional items/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

#### **25. SUBSTITUTION**

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

#### **26. CLEARING SITE ON COMPLETION**

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

#### **27. DEFECTS AFTER COMPLETION**

The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, peeling off laminate, false ceiling cracks, or any other faults, which may appear within 12 months after completion of the work. In the default, the Employer may employ and pay other persons to amend and make good such damages, losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor and such damages, loss and expenses shall be recoverable from him by the Employer or may be deducted by the employer, in lieu of such amending and making good by the contractor, deduct from any money due to the contractor a sum equivalent to the cost of amending such work and in the event of the amount retained being insufficient recover that balance from the contractor from the amount retained (retention money) together with any expenses the Employer may have incurred in connection therewith.

### **28. CONCEALED WORK**

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

### **29. 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.

### **30. SUSPENSION OF WORKS**

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 to be proceeded within a reasonable manner and with 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 materials to subsist from the date of such notice being given until the notice shall have been complied with. If the contractor fails to start the work within seven days after such notice has been given to proceed with the works as therein prescribed, the employer may proceed as provided in clause 31 (Termination of Contract by Employer)

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

### **32. 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 effect thereof or to the rights or liabilities of the parties or arising out of or in relation thereto whether during or after determination foreclosure or breach of the contract (other than those in respect of which the decision of any person is by the contract expressed to be final and binding) shall after written notice by either party to the contract to the other of them and to the 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 names of persons who shall be presently unconnected with the organization for which the work is executed from the following categories of Arbitrators:-

- a) Retired High Court/Supreme Court judge who have experienced in handling Arbitration Cases.
- b) Member of Council of Arbitrators
- c) Fellow of the Institution of Engineers
- d) Eminent Retired Chief Engineer from State/Central PWD/Public sector undertaking of good reputation and integrity
- e) Fellow of Indian Institute of Architects

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

If the Employer fails to send to the contractor the panel of three names as aforesaid within the period specified, the contractor shall send to the Employer a panel of three names of persons who shall all be unconnected with either party. The Employer shall on receipt appoint him as the Sole Arbitrator. If the Employer fails to select the person and appoint him as the Sole Arbitrator within 30 days of receipt of the panel and inform the contractor accordingly, the contractor shall be entitled to appoint one of the persons from panel as the Sole Arbitrator and communicate his name to the Employer.

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

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

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

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

Subject to aforesaid the provisions to 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 condition precedent to any right to action under the contract with regard to the matters hereby expressly agreed to be so referred to arbitration.

## **SPECIAL CONDITIONS OF CONTRACT**

### **1. DRAWINGS AND SPECIFICATIONS**

The works shall be carried out to the entire satisfaction of the EMPLOYER and the Architect, in accordance with the signed drawings and specifications and such further drawings and details as may be provided by the Architect/Employer, and in accordance with such written instructions, directions and explanations as may from time to be given by the Employer/Architect, whose decision as to the sufficiency and quality of the work and materials shall be final and binding upon all parties. If the work shown on any such further drawings or work that may be necessary to comply with any such instructions directions or explanations, be in the opinion of the contractor extraction that comprised in



or reasonably to be inferred from the contract he shall before proceedings with such work, give notice in writing to this effect to employer/Architect, and in the event of the employer/Architects agree to the same in writing the contractor shall be entitled to an allowance in respect of such extra work as on authorized extra. If the Architect and the contractor fail to agree as to whether or to there is an extra, then, if the Architect decided that the contractor is to carry out the said work, the contractor shall do so, and the question whether or not there is any extra, and it so the amount thereof, shall failing agreement, be settled by Arbitration as hereinafter provided, but such references shall in no way delay the fulfillment of this contract.

No drawings shall be taken as in itself on order for variation unless, in addition to the employer/Architect's signature, it bears express words stating that is intended to be such an order or bears a remark '**VALID FOR EXECUTION**'. No claim for payment for extra work shall be allowed unless the said work shall have been executed under the provisions of clause 6 (Authorities notices, patent right and royalties) or by the Authorities of directions in drawing of the Architect as herein mentioned.

One complete set of the signed drawings and specification and scheduled of quantities shall be furnished by the Architect to the Contractor. The Architect shall furnish within such time, as he may consider reasonable, one copy of any additional drawing, which is his opinion, may be necessary for the execution of any part of work. Such copies shall be kept at the works, and the architect or his representatives shall, at all reasonable time have access to the same and shall be return to the Architect by the contractor before the issue of the Final certificate. The contract shall remain in the custody of the Architect, and shall be produced by him at his office as and when required by the Employer or by the contractor.

## **2. INSPECTION OF DRAWINGS**

Before filling in the tender, the contractor will have to check up all drawings/specification and schedule of quantities, and will have to get an immediate clarification from the employer/Architect on any point that he feels is vague or uncertain. No claim of damages or compensation will be entertained on this account.

## **3. EXECUTION OF WORK (PRICES TO INCLUDE)**

The whole of the work is described in the contract a (including the schedule of Quantities, the specifications and all drawing pertaining there to) and as advised by Employer / Architect from time to time is to be carried out and completed in all its parts to the entire satisfaction of the Employer /Architect. Any minor details of the work which may not have been definitely referred to in this contract, but which are usual in practice and essential to the work, are deemed to be include in this contract. Rates quoted in the Schedule shall be inclusive of all frights, taxes, such as octroi, sales tax, Royalties, duties, excise, turnover tax, sales tax on works contract, etc., as well as transportation, so as to execute the contractor as per the rules and regulations of Local Bodies, State Government and Government of India.

The rates quoted in the tender should include all charges for:

- a) Labor, maintenance fixing, carrying, cleaning, making good, hauling, watering etc
- b) Plant, machinery, scaffolding, framework, English ladders, ropes, nails, spikes, tools, materials and workmanship protection from weather, shuttering, temporary supports, platform and maintenance of the same.
- c) Covering for the walling and other works during inclement weather or striking or whenever directed as necessary.

## **4. SITE SUPERVISION**

The contractor shall appoint at his own cost competent and adequate number of qualified Engineers at site, for (1) joint measurements and preparations of bills, (2) for testing materials at site and outside laboratory, (3) for other general supervision. Their appointment shall be approved by the Employer / Architect. The site Engineers shall not be removed from the site without the written consent of the Employer / Architect.

## **5. DIMENSIONS**

Figures, dimensions, are in all case to be accepted preferences to scaled sizes. Large-scale details take precedence over small scale drawings. In case of discrepancy, the contractor is to ask for a clarification before proceeding with the work. Accordingly if any work is executed without prior clarification it is liable to be rejected and shall not be paid for.

**6. PROGRAMME OF WORKS**

Contractor shall have to prepare and submit the CPM/PERT charges for employer approval immediately after issue of the work order and display the approved charts in the site office. He shall also make bar charts indicating individual items and during the progress of work he shall update the bar charts showing the proportionate progress of work every week.

He shall strictly adhere to the programme of works as per CPM/PERT charts showing the proportionate progress of work.

**7. PROCUREMENT OF MATERIALS**

Contractor shall procure all the materials for the work from the open market. Time is the essence of the contract. Acceptance of the completion date by the contractor shall mean that he has taken into consideration the availability of all material of approved make and quality in sufficient quantities at site to enable him to complete the entire work in the stipulated period. Contractor will get sample of all materials approved by the Employer before placing order / purchase / procurement. They shall conform to I.S. codes and or tender specification as applicable.

For all materials the contractor shall quote for the best quality of the materials of best make / source or supply and it will be got approved by Employer before procurement. In case sufficient quantities of approved quality materials from approved source are not available in time, contractor may have to procure the same from neighboring area with longer leads as required and directed at no extra cost. The material will be, however as per relevant I.S code as and wherever applicable.

**8. UNFIXED MATERIALS**

When any materials intended for the works shall have been placed at site by the Contract, such material shall not be removed there from (except for the purposes of being used on the works) without the written authority of the Employer / Architect and when the contractor shall have received payment in respect of any certificate in which the architect shall have stated that he has taken in to account to value of such unfixed materials on the works such material shall become the property of the Employer and the contractor shall be liable for any loss or damage to any such materials.

**9. CUSTODY AND SECURITY OF MATERIALS**

The contractors shall be responsible for the custody and security of all materials and equipment at site and he will provide full time watchman / watchmen to lock after his materials, stores equipments etc.

**10. RATES**

Contractor shall quote all the rates both in figures and in words and any alterations shall have to be initiated by the contractor. Rates quoted by the contractor for the same item in different schedules will be same and in case different rates are quoted, the lowest will be taken as correct and the schedule corrected accordingly. In case of discrepancy between figures and the words the rate quoted in words shall be taken as correct one. All quoted rates should be inclusive of sales tax on works contract tax. Rates quoted by the contractor shall hold good for all the work carried out to any height and depth as shown in detailed drawings and as required and directed by the Architect.

Rates quoted by the contractor shall also hold good for any small work at any place at site.

**11. PRICES FOR EXTRAS ETC., ASCERTAINMENT**

The rates of extra items will be ascertained as below

a) The rates will be derived from the rates of items already quoted in the original tender for the extra work.

b) Where extra work cannot be properly measured or valued, the contractor shall be allowed any work prices at the net rates stated in the tender or the priced schedule of quantities, or if not so stated, then in accordance with the local day work, rates and wages for the district, provided that in either case vouchers specifying the daily time (and if required by the Architect, the workmen's name) and materials employed at or before the end of the week following that in which the work has been executed.

c) The measurements and valuations in respect of the extra items of contract shall be completed within the 'period of final measurement' or within three months of the completion of the contract works as defined under clause (Certificate of Virtual Completion)

**12. EXTRA ITEMS RATES**

The work or extra items shall be started only after the approval of extra items rates by client / Architect. Rates for additional or extra items work which can not be derived from the contract item rates shall be calculated on the basis of actual cost plus 15 % for profit.

**13. DRAWINGS AND INSTRUCTIONS**

A set of major drawings along with the contract documents shall be provided to the contractor. For any clarifications or further drawings are required by the contract, during or before the start of construction work, the Contractor shall inform the employer/Architects in writing to provide the same. Working details will be given to the contractor from time to time during the progress of work as and when required. In case of other drawing is required by the contractor he will give a minimum ten days notice to the Employer / Architect.

**14. FAILURE BY CONTRACTOR COMPLY WITH ARCHITECT EMPLOYER'S INSTRUCTIONS**

If the contractor after receipt of written notice from the employer/architect requiring compliance with such further drawings and / or instruction, fails within seven days to comply with the same, the Employer / Architect may employ and pay other persons to execute any such work whatsoever as may be necessary to give effect thereto and all cost incurred in connection there with shall be recoverable from the contractors by the Employer as a debit or may be deducted from any money due or which become due to the Contractors.

**15. INFORMATION TO BE SUPPLIED BY THE CONTRACTOR**

The contractor shall furnish the Employer / Architect the following:

- a) Detailed industrial statistics regarding the labor employed by him etc
- b) The Power of Attorney, name and signature of his authorized representative who will be in charges for the execution of work
- c) The list of technically qualified persons employed by him for the execution of this work.
- d) The total quantity and quality of materials used for the works.
- e) The list of plant and machinery employed for this work.

**16. ARCHITECT'S DELAY IN PROGRESS**

The Architect may delay the progress of the works in case of rains or otherwise, without vitiating the contract and grant such extension of time with the approval of the employer for the completion of the contract as he may think proper and sufficient in consequences of such delay, and the contractor, shall not make any claim for compensation or damage in relation thereto.

**17. CERTIFICATE AND PAYMENTS**

The contractor shall be paid by the Employer from time to time, by installments under interim Certificates to be issued by the Architect/Engineer to the contractor on account of the works executed by the contractor when in the opinion of the Architect, work to the approximate value, named in the Appendix as 'Value of work for interim Certificates' (or less at the reasonable discretion of the Employer / Architect) has been executed in accordance with this contract, subject however, to a retention of the percentage of such value need in the Appendix hereto mentioned as 'retention percentage for interim Certificates' until the total amount retained shall reach the sum named in the appendix as Total Retention money after which time the installments shall be up to the full value of the work subsequently so executed in the interim Certificate, such amount as he may consider proper on account materials delivered upon the site by the Contractor for use in the work.

And when the works have been virtually completed and the Architect shall have certified in writing that they have been completed, the contractor shall be paid in accordance with the Certificate issued by the Architect the sum of money named in the Appendix after satisfying themselves as 'Installment after Virtual Completion 'being a part of the said 'Total Retention Money'.

The Contractor shall be entitled to the payment of the final balance in accordance with the final Certificate to be issued in writing by the Architect at the expiration of the period refer to as ' The Defect Liability Period' in the Appendix hereto, from the date of Virtual Completion or as soon as after the expiration of such period as the work shall have been finally completed and all defect made good according to the true intent and meaning hereof, whichever shall happen, provided always that the issue by the Architect of any certificate during the progress of the works or after the completion shall not relieve the Contract from his liabilities in cases of fraud , dishonesty or fraudulent concealment relating to the works of materials or any matter dealt within the certificate, and in case of all defects

and insufficiency in the works or materials which reasonable examination would have disclosed. No certificate of the Architect shall of itself be conclusive evidence that any works and materials to which it relates are in accordance with the contract.

The Architect shall have power to withhold any certificate if the works or any part thereof is not being carried out to his / employer satisfaction.

The Architect may by any Certificate make any correction in any previous Certificate, which shall have been issued by him.

Payment to contractor upon the Architect/Engineer's Certificates shall be made within a period mentioned in the Abstract of general conditions.

#### **28. DELAYED PAYMENTS**

Any amounts payable by the Employer to the contractor in pursuance of any Certificate given by the Architect hereunder shall, if not paid within the 'Period of honoring of Certificate' no interest will be paid by the Employer.

#### **19. FORCE MAJEURE**

Neither party shall be held responsible by the other for breach of any condition of this agreement attributable to any 'Act of God' Act of state, lockout of control or any other reason, beyond the control of the parties and any breach of clauses arising from much force majeure conditions as aforesaid shall not be regarded as a breach of the provision of this Agreement.

#### **20. INCOME-TAX AND WORKS CONTRACT TAX**

Income Tax and Works Contract Tax shall be deducted at source by the client from the contractor's interim and final bill payments as per Statutory Regulations.

#### **21. SITE MEETINGS**

A senior representative of the contractor shall attend weekly meetings at works site and in addition meetings as and when arranged by employer / Architect to discuss the progress of the work and sort out problems, if any and ensure that the work is completed in the stipulated time.

#### **22. WORKING HOURS**

Since the site is a Working Branch, the Contractor has to execute the work after working hours, nights & on holidays. No extra payments will be made for the work being done during odd hours. The site will be handed over to the contractor in phased manner and the contractor has to schedule his activities accordingly. No extra payment shall be made on this account.

#### **23. ACTION WHERE THERE IS NO SPECIFICATION**

In case of any class of work for which there is no specification mentioned, the same will be carried out in accordance with the Indian Standards Specifications subject to the approval of the Employer / Architect.

#### **24. REPORTING OF ACCIDENT**

The contractor shall be responsible for the safety of persons employed by him on the works and shall report serious accidents to any of them whenever and wherever occurring on the works to employer who shall make every arrangement to render all possible assistance. This shall be without prejudice to the responsibility of the contractor under the Insurance Clause of the general conditions. Contractor shall take all precaution detailed in the safety code attached separately.

#### **25. TYPOGRAPHICAL CLERICAL ERRORS**

The Employer / Architect clarification regarding partially omitted particulars of typographical or Clericals errors shall be final and binding on the contractors.

#### **26. WORK PERFORMED AT CONTRACTOR'S RISK**

The contractor shall take all precautions necessary and shall be responsible for the safety of the work and shall maintain all lights, goods, signs, temporary passages or other protection necessary for the purpose. All works shall be done by the contractor's risk and if any loss or damage shall result from fire or from others cause, the contractor shall promptly repay or replace such loss or damage free from all expenses to the employer.

The contractor shall be responsible for any loss or damage to materials, tools or other articles used held for use in connection with the work. The work shall be carried on to completion without interferences with the operations of existing machinery or equipment, if any.

**27. SPECIAL CONDITIONS OF CONTRACT**

In the event of any discrepancy with clauses mentioned anywhere else in the tender with the clauses mentioned within special conditions of contract, the clauses mentioned within the special conditions of contract shall supersede those mentioned elsewhere.

**SCHEDULE OF APPROXIMATE QUANTITIES AND RATE**

1. The quantities given herein are approximate and they are subjected to alterations omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of the work to be done.

2. It is to be expressly understood that the measured work is to be taken net (notwithstanding) any custom or practice to the contrary according to the actual quantities when in place and finished according to the drawings or as may be directed from time to time by the employer and the cost calculated by measurements or weight, at the respective prices, without any additional charge for any necessary or contingent works connected there with. The rates quoted are for work in site and complete in every respects.

3. If any operation of work, which is specified in the respective items mentioned in the schedule of quantities, is not executed by the contractor then proportionately the rate quoted in the schedule shall be re-fixed.

**READ, UNDERSTOD AND ACCEPTED****SIGNATURE OF THE CONTRACTOR WITH SEAL****DATE:****GENERAL SPECIFICATIONS AND CONTRACTOR'S LABOUR RULES & REGULATIONS**

short title :

1. these regulations may be called the "contractor labour regulations."
2. **definitions :-** in these regulations, unless otherwise expressed or indicated, the works and expressions shall have the meaning hereby assigned to them respectively, that is to say :
  - (i) "labour" means worker employed by the bank's contractor directly or indirectly through a sub-contractor or other persons or by an agent on his behalf of a payment not exceeding rs. \_\_\_\_\_/- per month and will not include supervisory staff like overseers etc.
  - (ii) "fair wages" means wages whether for time or piece work notified at the time of inviting tenders for the work and where such wages prescribed by the government of india in the ministry of labour and employment vide s.o. no. 1917 published in the gazette of india, extraordinary part - ii section (3) sub-section (ii) dated 19-5-1969.
  - (iii) "contractors' shall include every person whether a sub-contractor or headman or agent employing labour on the work taken on contract.
  - (iv) "wages" shall have the same meaning as defined in the payment of wages act and

- includes time and piece rate wages.
- 2.a. normally working hours if an adult employee should not exceed 9 hours a day and in case of a child 4 1/2 hours a day. the working day shall be so arranged that inclusive of interval for rest, if any, it shall not spread over more than 12 hours on any day.
  - 2.b. when an adult worker is made to work for more than 9 hours on any day or for more than 48 hours in any week. he shall be paid overtime for the extra hours put in by him at double the ordinary rate of wages. children shall not be made to work extra.
  - 2.c. every worker shall be given a paid weekly holiday normally on sunday in accordance with the provisions of minimum wages (central) rules, 1960 as amended from time to time irrespective of weather such worker is governed by the minimum wages act 1948 or not.
- 3 **display of notice regarding wage etc. the contractor shall :**
- (a) before the commences his work on contract, display and correctly maintain and continue to display correctly maintain in a clean legible condition in conspicuous places on the work, notice in english and in the local indian language spoken by the majority of workers, giving the rate of wages which have been certified by the executive engineer, ZONAL labour commissioner fair as wages and the hours of work for which such wages are earned, and
  - (b) send a copy of such notices to the certifying officer.
4. **payment of wages:-**
- (i) wages due to every worker shall be paid to him direct.
  - (ii) all wages shall be paid in current coin or currency or in both.
  - (iii) arrears claimed after 3 months after the completion of the work shall not be entertained.
5. **fixation of wage periods:-**
- (i) the contractor shall fix the wage periods in respect of which the wages shall be payable. the minimum daily rates of wages fixed under notification of the government of india in the ministry of labour and employment no. 1972 dated 10-5-78 are inclusive of wages for weekly day of restyle and the question of extra payment for week holiday would not arise.
  - (ii) no wage period shall exceed one month.
  - (iii) wages of every employed on the contract shall be paid (a) in case of establishments in which wage period is one week within 3 days from the end of the wage period and (b) in the case of other establishments before the expiry of the 7th day or 10th day from the end of the wages period according to the number of workers employed in such establishment does not exceed 1000 or exceeds 1000.
  - (iv) when the employment of any worker is terminated by or on behalf of the contractor the wages earned by him shall be paid before the expiry the day exceeding the one on which his employment is terminated.
  - (v) all payment of wages shall be made on a working day except when the work is completed before the expiry of the wage period in which case final payment shall be made within 48 hours of the last working day at work site and during the working time.
- note :** the term "working day" means a day on which work on which the labor employed, is in progress.
6. **wage book and wage slips etc. :** the contractor shall maintain a wage book of each worker in such form as may be convenient at the place of work, but the same shall include the following particulars :-
- (a) name of the worker.
  - (b) rate of daily or monthly wages.
  - (c) nature of work on which employed.
  - (d) total number of days worked during each wage period.
  - (e) dates and periods for which worked overtime.
  - (f) gross wages payable for the work during each wage period.
  - (g) all deductions made from the wage with an indication in each case of the ground for which the deduction is made.
  - (h) wages actually paid for each wage period.
  - (i) signature or thumb impression of the worker.
  - (ii) the contractor shall also issue a wage slip containing the aforesaid particulars to each worker employed by him on the work at least a day prior to the day of disbursement of wages.

- (iii) the contractor shall issue the employment card in the prescribed form iii to each worker on the day of work or entry in to his employment. if the worker has already any such card with him from the previous employer, the contractor shall merely endorse that employment card with relevant entries. on termination of employment the employment card shall again be endorsed by the contractor and returned to the worker.

(iv) **the contractor shall issue an attendance-cum-wages card as per form :**  
attached to each worker on the day of each worker on entry into his employment.

**7. register of unpaid wages :-** the contractor shall maintain a register of unpaid wages in such form as may be convenient at the place of work but the same shall include the following particulars :

- (a) full particulars of the labourers where wages have not been paid.
- (b) reference number of the muster roll and wage register.
- (c) rate of wages.
- (d) wage period
- (e) total amount not paid
- (f) reasons for not making payment
- (g) how the amount of unpaid wages was utilized.
- (h) acquaintance with dates.

**8. register of accidents :** the contractor shall maintain a register of accidents in such form as may be convenient at the work place but the same shall include the following particulars :

- (a) full particulars of the labourers who met with accident.
- (b) rate of wages.
- (c) sex
- (d) age
- (e) nature of accident and cause of accident.
- (f) time and date of accident
- (g) date and time when admitted in hospital
- (h) date of discharge from the hospital
- (i) period of treatment and result of treatment.
- (j) percentage of loss of earning capacity and disability as assessed by the medical officer.
- (k) claim required to be paid under worker's compensation act.
- (l) date of payment of compensation.
- (m) amount paid with details of persons to whom the same was paid.
- (n) authority by whom the compensation was assessed.
- (o) remarks.

**9. fines and deductions which may be made from wages :**

- (i) the wages of a worker shall be paid to him without any deduction of any kind except the following :
  - (a) fines.
  - (b) deduction for absence from duty i.e. from the place or the places whereby terms of his employment he required to work. the amount of deduction shall be in proportion to the period for which he was absent.
  - (c) deduction for damage to or loss of goods expressly entrusted to the employed person for custody, or loss of money or any other deduction which he is required to account, where such damage or loss is directly attributable to this neglect or default.
  - (d) deduction for recovery of advances or for adjustment of over-payment of wages, advance granted shall be entered in a register.
  - (e) any other deduction which the central government may from time to time allow.
- (ii) no fine should be imposed on any worker save in respect of such acts and omission on his part as have been approved by the chief labour commissioner.
- (iii) no fine shall be imposed on a worker and no deduction for damage or loss shall be made from his wages until the worker has been given an opportunity of showing cause against such fines or deductions.
- (iv) the total amount of fine which may be imposed in any one wage period on a worker shall not exceed an amount equal to three paise in a rupee of wages, payable to him in respect of that wage period.
- (v) no fine imposed on any worker shall be recovered from him by installment, or after the expiry



- of sixty days from the date on which it was imposed.
- (vi) every fine shall be deemed to have been imposed on the day of the act or omission in respect of which it was imposed.
- 10. register of fines, etc. :**
- (i) the contractor shall maintain a register of fines and a register of deduction for damage or loss in form nos. 1 & 2 respectively which should be kept at the place of work.
- (ii) the contractor shall maintain both in english and the local indian language, a list approved by the chief labour commissioner clearly stating the acts and omissions for which penalty or fine may be imposed on a workman and display it in a good condition in a conspicuous place of the work.
- 11. preservation of registers :-** the wage book the wage slips, the register of unpaid wages, the register of accidents, the register of fines, deductions required to be maintained under these regulations shall be preserved for 45 days after the date of last entry made in them and shall be made available for inspection by the engineer-in-charge labour welfare officer or any other officer authorised by the chief labour commissioner in this behalf.
- 12. powers of labour welfare officer to make investigation or enquiry**  
the labour welfare officer or any other person authorized by the central government on their behalf, shall have power to make enquiries with a view to ascertaining and enforcing due and proper observance of the fair wage clauses and provisions of these regulations. he shall investigate into any complaint regarding the default made by the contractor or sub-contractor in regard to such provision.
- 13. report of labour welfare officer :** the labour welfare officer or other persons authorised as aforesaid shall submit a report of result of his investigation or enquiry to the executive engineer concerned indicating the extent, if any, to which the default has been committed, with a note that necessary deduction from the contractor's bill be made and the wages and other dues be paid to the labourers concerned. in case an appeal is made by the contractor under clause 14 of these regulation actual payment to the labourers will be made by the executive engineer after the ZONAL labour commissioner has given his decision on such appeal.
- (a) the executive engineer shall arrange payments to the labours concerned within 45 days from the receipt of the report from the labour welfare officer or the ZONAL labour commissioner as the case may be.
- 14. appeal against the decision of labour welfare officer :**  
any person aggrieved by the decision and recommendations of the labour welfare officer or other person so authorized may appeal against such decision to the ZONAL labour commissioner concern within 30 days from the date of decision, forwarding simultaneously a copy of his appeal to the executive engineer concerned but subject to such appeal, the decision of the officer shall be final and binding upon the contractor.
- 15. prohibition regarding representation through lawyer :**
- (a) a workman shall be entitled to be represented in any investigation or enquiry under these regulation by :
- (a) an officer of a registered trade union of which he is a member.
- (b) an officer of a federation of trade unions to which the trade union referred to in clause(a) is affiliated.
- (c) where the employee is not a member of any registered trade union, by any officer, of a registered union, connected with, or by any other workman, employed in the industry in which the worker employed.
- (ii) an employer shall be entitled to be represented in any investigation or enquiry under these regulation by ;
- (a) an officer of any association of employers of which he is a member.
- (b) an officer of a federation of association of employers to which the association referred to in clause (a) is affiliated.
- (c) where the employer is not a member of any association of employers' by an officer of association of employers connected with or by any other employer, engaged in the industry in which the employer is engaged.

(iii) no party shall be entitled to be represented by a legal practitioner in any investigation or enquiry under these regulations.

**16. inspection of books and slips :**

the contractor shall allow inspection of the wage books and the wage slips the register of unpaid wages, the register of an accident, and the register of fines and deduction to any of his workers or to his agent at a convenient time and place after due notice is received or to the labour welfare officer or any other person authorized by the central government on his behalf.

**17. submission of returns :**

the contractor shall submit periodical returns as may be specified from time to time.

**18. amendment :** the central government may from time to time add to or amend the regulation and on any question as to the application, interpretation or effect of these regulations the decision of the chief labour commission or deputy chief labour commission to the government of india, or any other person authorized by the central government in that behalf shall be final.

schedule of fair wages published vide the extraordinary gazette of india

**part ii section (3) sub-section (ii) dated 19-5-69**

s.no.	categories of employees	all inclusive minimum rates of wages per day i.e. including the wages for weekly day of rest	
1.	bhisti	(1) 1st class	rs. p.
2.	black-smith	(2) 2nd class	
3.	carpenter	(1) 1st class (2) 2nd class	
4.	chowkidar	(1) male (beldar)	
5.	coolies	(2) female (coolies)	
6.	fitter class i		
7.	Dy. fitter or 2nd class fitter		
8.	mason (bricklayer)	(1) 1st class (2) 2nd class	
9.	mason for stone work	(1) plain (2) ornamental	
10.	mate		
11.	mistry class i		
12.	painter		
13.	rock cutting labourer	(a) excavator (b) breaker (c) hole driller (d) stoneschiseller	
14.	sewerman		
15.	skilledbeldar (for floor rubbing etc.		
16.	whitewaster (unskilled)		
17.	5 donkeys with man		
18.	welder		
19.	stone cutter	(a) 1st class (b) 2nd class	
20.	driver for mixer truck and road roller		

\* the fair wage rates prevailing in the district on the date of receipt of tender and any notification subsequently by the respective state government/central government

note : 1. the minimum rates of wages shall consist of an all inclusive rates and include also the wages for weekly day of rest.

2. the minimum rates of wages for young persons below 18 years of age and for

disabled persons shall be 70% of the rates payable to adult workers of appropriate category.

### **32. safety code**

scaffolds :

- (i) suitable scaffolds should be provided for workmen for all works that cannot safely be done from the ground, or from solid construction except such short period work as can be done safely from ladders. when a ladder is used an extra mazdoor shall be engaged for holding the ladder and if the ladder used for carrying material as will, suitable footholds and hand holds shall be provided on the ladder 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 4m. above the ground or floor, swung or suspended from an overhead support or erected with stationary support shall have a guard rail properly attached bolted, braced and otherwise secured at least 3 feet high above the floor or platform of such scaffoldings or staging and extending along the entire length of the outside and ends there of 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 from the building or structure.
- (iii) working platform, gangways, and stairways should be so constructed that they should not sag unduly or unequally, and if the height of the platform or the gangway or the stairway is more than 12 feet above the ground level on the floor level. they should be closely boarded, should have adequate width and should be suitably fastened, as described in (ii) above.
- (iv) every opening in the floor of a building or in a working platform be provided with suitable means to prevent the fall of persons or materials by providing suitable fencing or railing whose minimum height shall be -3'0". wherever there are open excavations in ground, they shall be fenced off by suitable railing and danger signals installed at night so as to prevent persons slipping into the excavations.
- (v) safe means of access shall be provided to all working platforms and the working places. every ladder shall be securely fixed. no portable single ladder shall be over 9m. in length while the width between side rail in rung ladder width shall in no case be less than 290mm. for ladder upto and including 3m. in length. for longer ladders this width should be increased at least 20mm. for each additional meter or length.
- (vi) a sketch of the ladders and scaffolds proposed to be used shall be prepared and approval of the engineer obtained prior to construction.

#### **other safety measures**

- (vii) all personnel of the contractor working within the plant site shall be provided with safety helmets. all welders shall wear welding goggles while doing welding work and all metal workers shall be provided with safety gloves. persons employed on metal cutting and grinding shall wear safety glasses.
- (viii) adequate precautions shall be taken to prevent danger from electrical equipment. no materials on any of the sites of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public.

#### **excavation and trenching**

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

**demolition**

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

**personal safety equipments**

- xii). all necessary personal safety equipment as considered adequately by the engineer should be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use, and the contractor should take adequate steps to ensure proper use of equipment by these concerned.
- (a) worker employed on mixing asphaltic materials, cement and lime mortars shall be provided with protective footwear and protective goggles.
- (b) those engaged in white washing and mixing or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.
- (c) those engaged in welding works shall be provided with welder's protective eyesight lids.
- (d) stone breakers shall be provided with protective goggles and protective clothing and seated at sufficiently safe intervals.
- (e) when workers are employed in sewers and manholes, which are in use, the contractor shall ensure that the manhole covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes and manhole's 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 age of 18 years and women on the work of painting with products containing lead in any form. where ever men above the age of 18 years are employed on the work of lead painting, the following precautions should be taken.
- (i) no paint containing lead or products shall be used except in the form of paste or readymade paint.
- (ii) suitable face masks should be supplied for use by the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.
- (iii) overalls shall be supplied by contractors to the workmen and adequate facilities shall be provided to enable the worker painters to wash during the cessation of work.
- (xiii) when the work is done near any place where there is risk of drowning, all necessary equipment 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**

- (xiv) use of hosting machines and tackle including their attachment, anchorage and supports shall conform to the following standards or conditions :
1. (a) these shall be 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 a means of suspension shall be of durable quality and adequate strength, and free from patent defects.
2. every crane driver or hoisting applications operator shall be properly qualified and no person under the age of 21 years should be in charge of any hoisting machine including any scaffolding which give signals to operator.
3. in case of every hoisting machine and of every chain ring hook, shackle swivel and fully block used in hoisting or as means of suspension for safe working load shall be ascertained by

adequate means. every hoisting machine and all geared referred to above shall be plainly marked with the safe working load. in case of a hoisting machine having a variable safe working load. in case of a hoisting machine having a variable safe working load, each safe working load of the conditions under which it is applicable shall be clearly indicated. no part of any machine of any geared referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

4. in case of department machines, the safe working load shall be notices by the electrical-engineer-in-charge. as regards contractors machines the contractors shall notify the safe working load to the machine to the engineer-in-charge whenever he brings any machinery to site of work and get it verified by the electrical-engineer concerned.
- (xv) motors, gearing transmission, electric wiring and other dangerous parts of hoisting, appliances should be provided with efficient safe guards hoisting appliances should be provided with such means as will reduce to the minimum the risk of accidental decent of the load, adequate precautions should be taken to reduce to the minimum the risk of any art of a suspended load becoming accidentally displaced. when workers employed on electrical installations which are already energized insulating mats, wearing apparel, such as gloves sleeves and boots as may be necessary should be provided. the workers should not wear any rings, watches and carry keys or other materials which are good conductors of electricity.
- (xvi) all scaffolds, ladders and safety devices mentioned or described herein shall be maintained in safe condition and no scaffold, ladder or equipment shall be altered or removed while it is in use.  
adequate washing facilities should be provided at or near places or work.
- (xvii) these safety provisions should be brought to the notice of all concerned by display on a notice board a prominent place at work spot. the person responsible for compliance of the safety code shall be named there in by the contractor.
- (xviii) to ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the labour officer, engineer-in-charge of the department or their representatives.  
notwithstanding the above clauses from (i) to (xviii) there is nothing in these to exempt the contractor from the operation of any other act or rule in force in the republic of india.

33.

**model rules for the protection of health and sanitary arrangements for workers employed by contractors**

**1. application :**

these rules shall apply to the contractor for INTERIOR WORK

**2 definitions :**

(1) "work place" means a place at which, at an average 50 or more workers are employed in connection with construction work.

(2) "large work place " means a place at which, at an average 500 or more workers are employed in connection with construction work.

**2. first aid :**

- (a) at every work place, there shall be maintained in a readily accessible place first aid appliance including an adequate supply of sterilized dressings and sterilized cotton wool. the appliances 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 the working hours.
- (b) at large work places, where hospital facilities are not available within easy distance of the work. first aid post shall be established and be run by a trained compounder.
- (c) where large work places are remote from regular hospitals, indoor ward shall be provided with one bed for every 250 employee.
- (d) where large work places are situated in cities, in towns or in their suburbs and no beds are considered necessary owing to the proximity of city or 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 a car, shall be kept readily available to take injured person or persons suddenly taken seriously ill to the nearest hospital.

**3. drinking water :**

- (a) in every work place, there shall be provided and maintained at suitable places easily accessible to labour, a sufficient supply of cold water fit for drinking.
- (b) where drinking water is obtained from an intermittent public water supply, each work place 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 15m. from any latrine, drain or other source of pollution. where water has to be drawn from an existing well which is within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. all such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.
- (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 in a month.

**5. washing and bathing place :**

- (i) adequate washing and bathing places shall be provided, separately for men and women.
- (ii) such places shall be kept in clean and drained condition.

**6. scale of accommodation in latrines and urinals :**

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

	<u>no. of seats</u>
(a) where the number of persons does not exceed 50	2
(b) where the number of persons exceeds 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, necessary.

**7. latrines and urinals for women :**

if women are employed separate latrine and urinals, screened from those of men and marked in the vernacular in conspicuous letter. "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 and a woman shall also be exhibited at the entrance of latrines for each sex. there shall be adequate supply of water close to the urinals and latrines.

**8. latrines and urinals :**

except in work places provided with water flushed, latrines, connected with a water borne sewerage system, all latrines shall be provided with receptacles on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in a strictly sanitary condition. the receptacles shall be tarred inside and outside at least once a year.

**9. construction of latrines :**

the inside walls shall be constructed of masonry or some suitable heat-resisting non-absorbent material 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 the purpose and kept available for inspection. latrines will not be of a standard lower than borne-hole system and should have thatched roofs.

**10. disposal of excreta :**

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.

**11. provision of shelters during rest :**

at every work place there shall be provided, free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labour. the height of the

shelter shall not be less than 11 feet 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. sheds should be kept clean and the space should be on the basis of at least 0.50 square metre per head.

**12. creches :**

- (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 year belonging to such women. one hut shall be used for infant's games and play and the other as their bed-room. the huts shall not be constructed on a lower standard than the following :
- (i) thatched roofs :
  - (ii) mud floor and walls :
  - (iii) planks - spread over the mud floor and covering 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 officer 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 dai to look after the children of women workers.
- (c) the size of creche or creches shall vary according to the number of women workers.
- (d) the creches or creche shall be properly maintained and necessary equipment like toys, etc. shall be provided.

**13. canteen :** a cooked food canteen on a moderate scale shall be provided for the benefit of workers where ever it is considered expedient.

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

**18.** Mix of cement concrete/reinforced cement concrete required to be used in various locations/ situations shall be shown on drawing. Wherever not mentioned shall be as under :-

- (a) Cement concrete in floors (self finished) and concrete as under layer for terrazzo floor cast in situ shall be PCC 1:2:4 (1 cement: 2 coarse aggregate : 4 graded stone aggregate 12:5 nominal size).
- (b) Cement concrete for RCC work in wall, columns footings, beams/Roof/floor slabs, landing, fins, lintels, chajjas, shelves, staircases, balconies, Loft slabs shall be of M20 Grade mix cement concrete and in Pedestals and Columns shall be of M25 Grade mix cement concrete
- (c) Cement concrete in PCC filling for pressed steel frames, hold fast blocks and rain water pipes etc. shall be 1:3:6 (1 cement :3 of coarse sand: 6 stone aggregate 20 mm nominal size).
- (d) The mix (1:2:4) shall conform to M 15 (nominal) and mix (1:1.5:3) shall conform to M 20 (nominal) as per IS 456-2000 for the purpose of testing and acceptance based on 28 days strength.
- (f) Lean cement concrete below columns/walls footings and in sub flooring of stilt floor shall be of mix 1:4:8 (1 cement : 4 coarse sand : 8 stone aggregate 40 mm nominal size).

**19. Bearing Plaster**

This shall consist of cement plaster 1:3 (1 cement :3 fine sand) 20mm thick finished with a coat of neat cement laid on top of walls as bearing for RCC lintels, beams and slabs, when dry, a thick coat of lime wash shall be given before starting, shuttering. The shuttering shall be started after minimum one day of bearing plaster so that it is set.

**20. Concrete filling for sunken and lowered portions of slab:** This shall be cement concrete 1:5:10 (1 cement : 5 coarse sand: 10 brick ballast 40mm nominal size) in the entire sunken portions or cinder filling as per specifications shall be provided.

**21. Damp Proof Course:**

- (a) This shall consist of 40mm thick PCC 1:2:4 (1 cement: 2 coarse sand :4 graded stone aggregate :12.5mm nominal size) with water proof compound conforming to IS-2645) as per manufacturer's specifications.
- (b) DPC as specified above shall be provided 40mm thick at level with finish floor to the full width of walls (Ground floor only).
- (c) No DPC shall be provided over dwarf walls but floors shall be carried over to the full width over the dwarf wall finished 10mm projecting over from the wall.
- (d) The dried up surface of DPC shall be cleared with brushes and finally with the piece of cloth soaked in kerosene oil and then applied with hot bitumen using 1.7 Kg. per sqm. of DPC area.
- (e) Vertical Damp proof course shall be provided at ground floor on common walls between floors at different levels and shall consist of 20mm thick plaster of mix 1:4 (1 cement: 4 coarse sand) with water proofing compound as per manufacturers specification and as in (d) above before filling earth/sand is carried out.

22. **Plinth Protection**

PCC 1:3:6 (1 cement: 3 coarse sand: 6 graded stone aggregate 20mm nominal size) 50mm thick of width as shown on drawing shall be provided and laid in alternate bays in slope over 75mm hard core of rammed dry brick aggregates of 40mm nominal size over well rammed and consolidated earth base with brick edging all around the buildings except in portions covered by steps, ramps and platforms. A joint of 10mm shall be left through depth of concrete all along with junction between wall and plinth protection at all turnings and across at every 2.5m. these joints shall be filled with a mixture of blown grade Bitumen 85/25 and sand. The surface shall be finished smooth without using extra cement. Brick edging shall be laid on header with cement mortar 1:4 (1 cement:4 Coarse sand) as per detail as shown on drawings.

**SUB HEAD - BRICK WORK**

**MATERIAL**

- 1. **Sand for Masonry Mortars:** Unless otherwise indicated, sand for masonry mortars shall consist of natural river sand (generally termed as coarse sand) conforming to IS 2116-1965 specifications for sand for masonry mortars. Sand shall be hard, durable, clean and free from adherent coatings and impurities such as iron particles, alkalis, salts, coal, mica, shale or similar laminated or other materials exceeding the specified limit. Grading of sand shall be as under :

	-----IS Sieve	
	<b><u>Percentage Passing by weight</u></b>	
	Un reinforced masonry	Reinforced masonry
	-----4.75mm	
	100	100
2.36mm	90-100	90-100
1.18mm	70-100	70-100
600 micron	40-100	40-100
300 micron	5-70	5-70
150 micron	0-75	0-10



2. The maximum quantities of clay, fine silt and fine dust in sand shall not be more than 8 percent by volume, Organic impurities shall be below that obtained by comparison the standard solution on specified in 6-2-2 of IS 2386 (Part II 1983). The coarse/fine sand shall be from river Krishna or from any other source conforming to the above standards.
3. **Common Burnt clay building brick :** Common burnt clay building bricks (herein-after termed as bricks shall conform to the requirements laid down in IS-1077-1976 for common burnt clay building bricks. Bricks shall be class designation 75, sub Class 'A' as per parameters given in the IS regarding edges, dimensions etc. The overall dimensions shall however be as per local practice of moulds. Water absorption after immersion in cold water for 24 hours shall not exceed 20% and grading for efflorescence shall be less than moderate. Bricks shall be free from cracks, flaws and nodules of free lime. Dimension shall be all within tolerance. Under/over burnt bricks and warped bricks shall be totally rejected.
4. Test check on random samples from each lot of bricks brought at site shall be carried out for compressive strength and water absorption test. Results of these tests duly signed and dated by Contractor; Architect and Engineer in charge shall be recorded in a separate register, which shall be kept with the Engineer in charge.

#### **WORKMANSHIP - MASONRY MORTARS**

5. **Preparation of Cement Mortars:** Mortar shall be of mix as indicated. The mixing specified is by volume. Mixing shall be done in a mechanical mixer. The mortar shall be mixed at least three times after adding of water. The cement mortar shall be freshly mixed for immediate use. Any mortar which has commenced to set shall be discarded and removed from the site.
6. **Bond :** All brick works shall be built in English bond, unless otherwise indicated. Half brick walls shall be built in stretcher bond. Header bond shall be used for walls curve on plan for better alignment, header bond shall also be used in foundation, stretchers may be used when the thickness of wall renders use of header impracticable. Where the thickness of footings is uniform or a number of courses, the top course of the footings shall be of headers. Brick courses at DPC level and at all slab levels below the bearings of slab shall be as bricks on edges.
7. Half or cut brick shall not be used except where it is necessary to complete the bond.
8. Overlap in stretcher bond is usually half brick and is obtained by commencing each alternate course with a half brick. The overlap in header bond which is equally half the width of the brick is obtained by introducing a three quarter brick in each alternate course at quoins. In general, the cross joints in any course of brick work shall not be nearer than a quarter of brick length from those in the course below or above it.
9. **Curing:** The bricks shall be adequately wet before use and brickwork shall be constantly kept wet for atleast seven days.
10. **Half Brick Walls :** The bricks shall be laid in stretcher bond in cement and sand mortar 1:4 (1 cement : 4 coarse sand) or as indicated. The reinforcement shall be 2 Nos. MS round bars or as indicated and as described in SUBHEAD VII steel and Ironwork. The diameter of bars shall be 6mm. The first layer of reinforcement shall be used at second course and then at every fourth course of brick work. The bars shall be properly anchored (min. 150mm) at their ends where the portions and or where these walls join with other walls columns. The inland steel reinforcement shall be completely embedded in mortar. Overlap in reinforcement if any, shall not be less than 30 cm. The cover i.e. the mortar interposed between the reinforcement bars and brick shall not be less than 6mm. The mortar covering in the direction of joints shall be not less than 15mm.
11. **Brick work in foundation upto plinth:** Brickwork in foundation shall be with brick of class designation 75 upto plinth level in cement mortar 1:6 (1 cement: 6 coarse sand).
12. **Brick work in Super structure :** Brickwork in superstructure including parapets shall be bricks of class designation 75 in cement mortar 1:6 (1 cement: 6 coarse sand).

13. **Brick work in Steps of staircase** :Brickwork in steps of staircase shall be in bricks of class designation 75 in cement mortar 1:6 (1 cement: 6 coarse sand).
14. **Parapets and Railings** : Parapets and railing shall be provided to balconies, Terraces, roof tops and stair landing etc. of upper floors as per details shown on drawings.
15. **70mm Thick Brick Work**  
70mm thick brick work shall be provided with bricks of class designation 75 in cement mortar 1:3 (1 cement : 3 coarse sand) wherever shown in the drawings.

**SUB HEAD - JOINERY WORKS**1. **GENERAL**

The type of shutters for doors, windows, ventilators etc. viz. paneled glazed wire gauzed and flush shall be as indicated and detailed in the drawing.

2(a) **TIMBER:**

- **Quality** : Unless otherwise specified timber used in wood work shall be of approved quality from the species of wood listed in IS 399-1963.
- Timber shall be well seasoned, proper dressed, of uniform colored and durability of reasonably straight grains and shall be free from knots, cracks, shakes, splits, cross grains ,decay and sapwood etc.
- **Teak Wood** : Moisture content of timber used in wood work shall be as close as possible to the lower values laid down in the table below.

S.No.	Type of Wood work	Recommended range of moisture content (%)
1	Frames of doors and windows etc.	16 to 18 %
2	Shutters of doors and windows etc.	15 to 16 %
3	Frame work for ceiling, cladding etc.	16 to 18 %

- 2(b) **Flush Door shutters:** Door shutters shall be 35 mm thick craft master wooden moulded door having hard wood timber frame of 29 mm th. Core and door facing plates ( wooden fiber plates) pasted on both sides with overall thickness of doors to be 35 mm. The core shall be solid core using machine filled rigid expanded polyurethane foam of density 45 kg / cubic meter. Minimum width of frame shall be 65 mm th with additional wooden blocks for fixing of locks etc. door facing plates shall be 3.2 mm th. Phenolic bonded passing the test as required vide IS 2380 and formaldehyde test as per IS and boil test as per is 4020. Water absorption should be less than 16% after 2 hours and less than 36% after 24 hours. Moisture content should not be more than 8%.
3. **Testing of Flush Door / Wooden Moulded Door Shutters:** On receipt of the shutters at site the Engineer in charge SBH or The Architect shall be entitled to get the samples of door shutters tested in any approved laboratory. From each lot of approximately 100 shutters, one shutter shall be selected at random by the Engineer in charge/ Architect. The cost of replacement of the door shutters selected as samples, their transportation to the laboratory and cost of testing by the laboratory shall be borne by the Contractor.
4. **Glazed & Gauzed Door Shutters :** Shutters shall be 35/40 mm thick. These shall consist of second class Teak wood styles, top, bottom and lock rails as per details shown on drawings. Timber to be used for these shutters shall be of good quality, seasoned of material growth and conforming to IS 4021-1963. Seasoning and ASCU treatment shall be done as per IS-402-1962. Styles and rails of shutters shall be in one piece only. Styles and rails shall be jointed to each other by tonen or mortice at right angles. Mountings and glazing bars shall have joints and shall be strubtennoed to the maximum depth which the size of member would permit.

5. **Wire gauge shutters :** Provisioning and fixing of 35mm thick wire gauge shutters to all openable windows is in the scope of work of this contract. Wire cloth shall be securely housed in rebates by giving a right angled bend and fixing by means of suitable staples at intervals of 75mm. Over this wooden bead of specified size shall be fixed with nails, or screws, where indicated to cover the rebate fully. The space between the beading and the rebate shall be filled with putty to give it a neat finish. Exposed edges of the beads shall be rounded.
6. Door and windows shutters shall be provided as per details shown on the drawings.
7. The bottom of door shutters shall be 5mm above the finished floor level.
8. The glass panes shall be free from flaws, specks or bubbles and shall have square corners and straight edges. The glass panes shall be so cut that it fits slightly loose in the frames. The glass pane shall be fixed to the shutter with first glass hardwood beading of size as indicated properly screwed to the shutter with steel nails and necessary adhesive as per details as shown on drawings.
9. Glazing to windows/doors shutters shall be as follows of quality as approved by Engineer in charge and Architect.
 

(a) Fan light of Doors shutters	: 5.5 mm thick plain sheet glass.
(b) Door Shutters partly glazed	: 5.5mm thick plain sheet glass with itching.
(c) Windows (openable& fixed)	: 5.5mm thick tinted glass.
(d) Ventilators	: 5.5mm thick pin head glass.
10. **Polishing and finishing:** Polishing to allwood work is to be done with 3 to 4 coats of melamine polish, including the necessary pigments to get the proper colour and shade as by the Architect / Engineer in charge. Before polishing the base of wooden surface should be properly prepared by applying base primer and filling .The surface should be smoothed by applying sand paper on base. The polish work should be up to the satisfaction of Engineer in charge /Architect.

#### **SUBHEAD – ALUMINIUM DOORS, WINDOWS & VENTILATORS.**

1. The Aluminium extruded sections shall conform to Designation 63400 given in IS 737-1986 and shall be of manufacturers such as JINDAL or Hindalco or INDAL or equivalent manufacturers to be approved by the Engineer in charge/ Architect.
2. The Aluminium Doors, Windows, Ventilators and Glazing sections shall be anodized (anodic coating shall conform to IS 1868) As per colour approved by the Engineer in charge/ Architect .
3. The fabrication shall be carried out having mechanical joints, accurately machined and fitted to form hairline joints, with the vertical and horizontal sections at the corners to meet in 45 degrees mitred. The jointing shall be either with accessories such as cleats and cleating screws or by crimping with Hydraulics Press on to heavy duty extruded Aluminium cleats. The relevant arrangement shall be got approved by the Architects/ Engineer in charge. The glazing shall be fabricated and anchored to withstand wind pressures as per the Indian Standard.
4. Before proceeding with any manufacture, Shop Drawings for each typical elevation shall be submitted for the approval of the Architect and no work shall be performed until the approval of the shop Drawings is obtained.
5. All Glazing shall be air tight and water tight, using appropriate extruded EPDM gaskets/ as manufactured by MODI or equivalent; and sealant which shall be of high quality and performance requirements.
6. Each Glazing shall be tailor-made as per openings at Site. No cutting and making good of exposed grit wash plaster surfaces shall be permitted.
7. All the Aluminium sections shall be wrapped with self-adhesive non-staining thick layer of PVC tapes as approved by the Architects, and shall be duly packed for avoiding scratches or blemishes to the powder coated surface of the sections till the installation is completed.
8. The frames shall be fixed to concrete/masonry/brick work with dash fasteners and the method of fixing shall be got approved by the Engineer in charge before installation. The drilling of

holes for inserting the dash fasteners shall be carried out with drilling machines and the frame shall be fixed in plump, line and level at jambs, sills and heads.

9. The perimeter gap between the outer frame and the masonry shall be sealed with polysulphide sealant as per the make approved by the Engineer in charge.
10. Glazing: The glass panes shall be free from flaws, specks or bubbles and shall have square corner and straight edges. The glass panes shall be so cut that it fits slightly loose in the frames. The glass pane shall be fixed to the shutter with Aluminium beading and E.P.D.M. gasket properly snapped on as per the drawing. The glass panes shall be of approved make.

#### **SUB HEAD - BUILDERS HARDWARE**

1. Mongery shall be provided to all doors, windows and ventilator shutters with necessary matching screws of suitable size.
2. Fittings and fixtures to all doors shall be of **Brass/Stainless Steel brushed finish** material from **JYOTHI** or equivalent manufacturing company and for window and ventilators etc. fittings and fixtures shall be Aluminium anodized Matt finish ISI marked of approved make. The contractor shall obtain the approved of the name of the manufacturer and brand of fittings from Engineer in charge/ Architect before placing the supply order. If demanded an approved copy of Bureau of Indian Standard letter under which the manufacturer has been issued the license and authorized to make the items of builder hardware with ISI marking should be attached and one sample of each fittings of the particular brand duly ISI marked shall be given by Contractor.
3. Handles for window shutters shall be 75mm long and door shutters shall be 125mm D-Type Aluminium anodized.
4. Magic eye for entrance door shall be wide angle best quality. This shall be fixed at 1400 mm height from finished door level.
5. One sample piece of each fitting shall be produced for approval of Engineer in charge/ Architect. The bulk supply order shall be placed by the Contractor only after approval is accorded by Engineer in charge/ Architect.

#### **Schedule of Builder's Hardware**

Schedule of Hardwares /fittings to door, window and ventilator shutters shall be as per drawings.

#### **Mortice Latch (Vertical Type)**

Mortice latch (Vertical type) shall conform to IS 5930-1970, Specification for mortice latch (Vertical Type). These latches shall be capable of being operated inside and outside and shall be provided with a pair of Aluminium anodized lever handle fitted on the handle plate in order to close the door. The latches shall be of brass alloy. Face plate shall be provided in front of the ease plate, size of latch shall be 65mm.

#### **Mortice Locks**

These shall conform to IS 2209-1976. Specification for Mortice locks (Vertical Type). These shall have body, body covers, cast plate, faceplate, skirting plate lever, follower of cast brass and locking bolt and latch bolt extruded brass. Lever spring and latch spring shall be of phosphor bronze. The locks shall be supplied with 2 Nos. stainless steel keys. Locks shall be 6 lever. The lock shall be easily working with lever and shall be capable of being opened with from both inside and outside and shall be provided with a pair of Aluminium anodized lever handles on the handle plate in order to close the door from both side.

10. **Hydraulic Door Closer (Floor Type)**

The Contractor shall provide double acting Hydraulic Door Closer (floor type) model No. F-32, Cat No. 1204 with SS Plate. Capacity to carry door weight upto 380 Kg. of EVERITE brand. OR Cat No. OFS 9621 of OPEL brand. These shall be approved brand and manufacturer as above (Conforming to IS 6315) for Aluminium door including cost of cutting floor as required, embedding in floors and cover plate etc.

**NOTE:-** If any of the fittings are not manufactured as ISI marked there shall be of the same brand of other the ISI marked fittings approved by Engineer in charge.

### **SUB HEAD - STEEL & IRON WORK**

1. Steel and ironwork shall be executed as indicated in drawing and as per standard practice.
2. Quality of steel shall conform to the following specifications:-

(a)	Mild steel (Misc.)	IS 432-1966 Part I
(b)	MS reinforcement bars	IS 432 Part II 1962
(c)	Structural steel works	IS 226-1962
(d)	Steel Deformed Bars	IS-1786/1979
3. **Holdfasts:** Holdfasts shall be made out of MS flats of size as specified with split fish tail ends coated with anti rust paint/tar. Holdfast shall be welded to door/windows frame as specified.
4. **Door frame and shutters:** Size of door and locations shown on drawing and shall be comprising of frame and shutter fabricated and welded out of MS angle, plate & sheet and 10mm square tie bar. The door shall be painted with two or more coats of synthetic enamel paint of approved quality & shade over one coat of steel primer. Each MS gate shall have holdfast - 6 Nos. Butt hinges 125mm - 3 Nos. MS handles 100mm - 2 Nos. and MS sliding bolts 300 x 16mm - 2 Nos. (1 inside and 1 outside). Hold fasts shall be embedded in PCC block (1:3:6) of size 23 x 23 x 15cm.
5. **Grills :** MS grills manufactured out of flat iron, MS square tubes and round bars and of pattern as shown on drawing shall be provided to all windows openable/fixed, glazed portion of doors and fanlight of doors. All grills shall be fabricated and welded to frames.
6. **Railing to staircases, landings, passages, balconies & parapets:-**
  - (a) Railing to staircase, landing etc. shall be fabricated with 25mm square M.S. Hollow pipes , 12x12mm square MS bars with vertical supports, MS Perforated sheet & top handrail made of 65x100mm size in first class T.W. etc., as shown in drawing .
  - (b) Verandah/Balcony Railing shall be fabricated with MS flat and 18mm square MS bars with vertical supports & top handrail made of 40mm dia M.S. pipe (medium grade) welded at joints fixed into floor/steps as shown in drawing.
  - (c) The fixing details and dimensions for 7 (a), 7(b) & 7 (c) above shall be as shown in drawings. All welded joints shall be grounded properly before painting. The finished railing shall be true to plumb, line and levels as called for. The mild steel blusters and other exposed mild steel members shall be painted with approved shade and brand synthetic enamel paint as specified in clause No. 11 of SUBHEAD XI.
7. **Exhaust Fan opening :** In kitchen provision for fixing of exhaust fan shall be made by fixing 19mm thick BWP grade commercial board with a circular hole 300 mm dia in window as shown on drawings. This opening shall be covered by bird guard fabricated out of galvanized iron sheet 18 gauge as shown in drawing.

### **SUBHEAD - FLOOR FINISHING, SKIRTING & DADO**

1. **General**
  - a) This SUBHEAD shall cover all flooring and wall tilling work as shown in the drawing. No work under this SUBHEAD shall be started until specifically allowed by the Engineer in charge/ Architect and until all other major works such as plastering, embedding of conduits and pipes, channels, windows fixing etc. have been completed. Samples of adequate size representing

the quality, size, texture after polishing of the tiles to be used in the flooring work fully shall be prepared for all work and got approved from the Engineer in charge/ Architect before proceeding. The approved samples shall be retained up to the end.

- b) Floor shall be laid to level and or to slope as shown on drawings and as required and directed by Engineer in charge/ Architect. Floor shall be carried through all the doors and other openings and over dwarf walls. Exposed edge of floors shall be finished in the same manner as for top surfaces. Skirting shall match with the floor finish.

2. **Sub Flooring**

- (a) **For Ground Floor:** Sub floors (base concrete under floor finish) 75mm thick lean concrete in 1:4:8 (1 cement:4 coarse sand & 8 aggregate 40mm nominal size) for all locations

(b) **For Upper Floors**

- (i) Sunken/lower portion of slabs: Sub base shall be in lean concrete in 1:5:10 (1 cement :5 coarse sand and 10 brick ballast 40mm nominal size).
- (ii) Other floors: Where ever required/directed lean concrete 1:5:10 (1 cement :5 coarse sand and 10 brick aggregate 40mm nominal size) of required thickness laid over RCC slab.
- (iii) Floors under cupboards/book shelves/kitchen counters etc. in 1:5:10 lean concrete (1 cement :5 coarse sand and 10 brick aggregate 40mm nominal size).

3. **Plain cement concrete flooring:**

Cement concrete 1:2:4 (1 cement:2 coarse sand : 4 graded stone aggregate 12.5mm nominal size) flooring of specified thickness. The thickness of flooring finished shall be 40mm/50mm as specified in schedule of quantities with grooves of 10mm wide shall be left through depth of the flooring (finishes) to form bays as specified in para 5 (b) hereinafter OR. The top surface shall be finished with floating coat of neat cement using steel float while the concrete is green. With 6 mm PVC strips. As specified in Schedule of quantities.

4. **Skirting** To match PCC floors 18mm thick plaster in cement mortar of mix 1:3 (1 cement: 3 coarse sand) finished with a floating of neat cement shall be applied to skirting. The skirting shall be 100 high and it shall be projecting uniformly from the plastered surfaces of walls and columns and separated with horizontal groove of 10 mm x 10mm.

5. **Glazed tiles**

- (a) The tiles shall be of first quality and shall generally conform to IS : 777. These shall be flat, and true to shape and free from cracks, crazing, spots, chipped edges and corners. The glazing shall be of uniform shade and shall be provided in Dado of kitchen and toilets. The tiles shall be set over screed/ plaster 12mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) to all surface, set and jointed with laticrete Adhesive. The joints shall be neat and fine. Tiles face shall be kept flush with the skirting below.
- (b) Size of glazed tiles both for toilets, Baths, WC and kitchen shall be as shown on drawings.
- (c) The color of tiles shall be white/colored and the sample shall be got approved before fixing.

8. Height of glazed tiles dado above skirting in toilets and in kitchen, above kitchen platform shall be as shown on the drawings.

8. The glazed tiles shall be first quality vitreous china and of the following makes:-

- (a) Kajaria.  
(b) Asian  
(c) NITCO

9. **Finish of working plat forms in kitchens:** Finish of the working platform in kitchen shall be with 20mm thick Granite stone slabs diamond cut and mirror polished laid over RCC slab with 20mm cement mortar 1:4 (1 cement: 4 coarse sand). Granite shall be jointed with white cement slurry including grinding smooth and polishing complete

- 10.(a) **Marble flooring:** 20-25 mm thick marble (MakranaAdangaDoongri marble) stone slabs laid over sub floor with 20mm thick base cement mortar 1:4 (1 cement: 4 coarse sand) Marble shall be jointed with white cement slurry including grinding smooth & mirror polishing complete.

- (b) **Marble Skirting:** The marble stone slabs for skirting shall be as specified in clause 12 (a) above and of thickness 15 - 20mm. The stone shall be laid over 12mm thick cement mortar plaster 1:3 (1 cement : 3 coarse sand), jointed with white cement slurry including grinding smooth and mirror polishing.

11.(a) **NON- SKID CERAMIC TILES:**

Where indicated in Schedule of finishes shall be laid with cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with white cement paste pigmented to the tile shade.

- b) **NON-SKID CERAMIC TILES SKIRTING:** Where shown/indicated in the drawing/ schedule of finishes shall be provided 100mm height over 10mm thick cement mortar 1:3 (1 cement : 3 coarse sand) and jointed with white cement paste pigmented to the tile shade.

**VITRIFIED TILE**

1. Where shown/indicated in the drawing / schedule of finishes, premium range vitrified polished ceramic tiles of 605 x 605 x 10mm size of NITCO or other approved equivalent make (as per drawings) set over a base coat of CM (1:6) 12mm thick shall be provided and jointed with white cement paste pigmented to the tile shade.
2. The tile to be used should be of first quality, equal size and of same shade as approved by Engineer in charge / Architect.
3. The vitrified tiles shall be made from granite granules and bonding agent in the hydraulic press. The size of granite granules shall be uniform and there shall be no appreciable colour deviation. The shade and size of tiles shall be as shown in architectural drawings or as directed by Engineer in charge. Necessary cutting of tiles where required shall be done.
4. Measurement and rates shall be same as for marble flooring/ skirting

**VITRIFIED PAVED TILE FLOORING:**

1. Where shown / indicated in the drawing / schedule of finishes, vitrified paved tiles of NITCO make or equivalent as approved by engineer-in-charge, 16mm thick of size 300mm x 300mm set over a base coat of CM(1:6) prop. 12mm thick shall be provided and jointed with white cement paste pigmented to the tile shade.
2. The tile to be used should be of first quality, equal size and of same shade as approved by engineer in charge / Architect.

**CLAY PAVERS:**

**Laying of Interlocking Clay Pavers**

**METHOD OF LAYING IN SAND**

- (i) **Preparation of Ground:**  
Ensure you have root and rubble free compacted sub-base of at least 50mm thick. The sub-base should be roughly leveled and damped down before tamping down firmly with hand or mechanical compactor. Hand compaction is usually enough for most domestic applications. Mechanical compaction should be used when paving vehicle traffic areas.
- (ii) **Spreading Sand:**  
Spread the sand to get the level 1. For level 2. The sand should be screened and spread with guide rods to achieve a uniform thickness of 30mm.
- (iii) **Laying the Pavers:**  
Commence at a straight fixed edge if possible. Start laying pavers in the desired direction starting from the edge restraint. Start laying the pavers in the desired pattern placing each paver on the sand and tapping lightly with a rubber mallet or hand tamper.
- (iv) **Brushing in Sand:**

After the pavers have been laid use a compactor to push pavers into soft sand. Spread dry screened sand over the laid pavers so that the sand fills the grooves. For heavy traffic repeat this process once again.

### **SUBHEAD - WALL FINISHES**

#### 1. **General**

a) **Scope** This SUBHEAD shall cover internal and external plastering/rendering works as shown in the drawings.

b) **Mortar** : The mortar of specified mix shall be used.

#### c) **Scaffolding**

Stage scaffolding shall be provided for plastering work as per standard practice and as directed by Engineer in charge/ Architect. This shall be independent of the walls.

#### d) **Preparation of Surfaces**

Joints of brickwork wall shall be raked-out properly. Dust and loose mortar shall be brushed out. Efflorescence if any shall be removed by brushing and scraping., shuttering imperfections of all concrete shall be roughened by hacking with chisel and all resulting dust and loose particles cleaned and the surface shall be thoroughly hacked or bush hammered to the satisfaction of Engineer in charge/ Architect. The surface shall be thoroughly washed with water, cleaned and kept wet before plastering is commenced.

#### e) **Approval of Engineer in charge/ Architect to be taken**

No plastering work shall be started before all conduits, pipes fittings and fixtures clamps, hooks etc. are embedded, grouted and cured and all defects removed to the satisfaction of Architect/ Engineer in charge. Special approval shall be taken from Engineer in charge/ Architect before starting each plastering work. No cutting of finished plaster shall be allowed. No portion shall be left out initially to be patched up later on.

#### a) **Mixing**

The ingredients shall be mixed in specified proportions by volume. The mixing shall be done in a mechanical mixer. The cement and sand shall first be mixed thoroughly dry in the mixer. Water shall then be added gradually and wet mixing continued for at least a minute until mortar attains the consistency of a stiff paste and uniform colours Mortar shall be used within 30 minutes of addition of water. Mortar which has partially set shall not be used and removed from the site immediately.

### 2. **Internal Surfaces**

i) Plastering shall be started after the completion of ceiling plaster from top and gradually worked down towards floor. It shall not, at any place be thinner than as specified. To ensure even thickness and a true surface plaster of about 15cm x 15cm shall be first applied horizontally and vertically at not more than 2m interval over the entire surface to serve as gauges. The mortar shall then be applied to the wall/ surface between the gauges and finished even. All corner junctions and rounding shall be truly vertical or horizontal and finished carefully. In suspending work at the end of the day plaster shall be cut clean to line where recommencing the plastering, edge of old work shall be scrapped, cleaned and wetted with cement putty before restarting plastering.

ii) Cement plastering internally on all internal surfaces including soffits of RCC slabs, chajjas, lintels, around shelves, inner side of parapets and around of parabolas etc. shall be as shown on drawing. Wherever not shown it shall be as under :-

a) 15mm thick plaster in cement mortar 1:6 (1 cement: 6 parts 75% fine sand & 25% coarse sand) over brick and concrete surfaces. Rubbing out wherever required (i.e. bringing up the undulation on the rough face of brick work in level with proudest points) shall also be executed in the same mix along with rendering coat.

b) 12 mm thick plaster in cement mortar 1:3 (1 cement: 3 fine sand) for all ceiling surfaces and on soffits of RCC slabs, chajjas, and kitchen platforms and around of shelves and pergolas.

b) 10mm x 6mm grooves shall be provided in ceiling plaster at junction of wall and ceiling.

### 4. **EXTERNAL SURFACES:**

#### A. **EXPOSED BRICK WORK**



**Facing Bricks (Machine Made Brick Tiles)**

The facing bricks made from suitable soils shall be free from cracks, flaws, nodules of free lime warpage and organic matter. These shall be thoroughly burnt and shall have plane rectangular faces with parallel sides and sharp straight right angled edges. Facing bricks shall have uniform colour and even texture. Unless otherwise specified, facing bricks shall be machine moulded. Selected hand moulded bricks may also be used as facing bricks where specified. As far as possible, total requirement of facing bricks for a work shall be arranged from the same kiln. Bricks with chipped edges and broken corners shall not be used.

**Dimensions and Tolerances**

The standard sizes of machine moulded facing bricks shall be as under:

The brick may be modular or non-modular. Sizes of both types of bricks/tiles shall be as per Table 1. While use of modular bricks/tiles are recommended, non-modular (FPS) bricks/tiles can also be used where so specified. Non-modular bricks/tiles of sizes other than the sizes mentioned in Table 1 may be used where specified.

**TABLE 1**

	Nominal size		Actual size		Type of Bricks/tiles
	mm		mm		
Modular Bricks	200 x 100 x 100 mm		90 x 90 x 90mm		
Modular tile bricks	200 x 100 x 40 mm		190 x 90 x 40mm		
Non-modular tile bricks	229 x 114 x 44 mm		225x111x 44 mm		
Non-modular bricks	229 x 114 x 70 mm		225x 11 x 70 mm		

**TABLE 2**

The permissible tolerances shall be as under:

Dimension	Tolerance (for Machine mm)	moulded bricks) mm
Length	190 or 225	± 3
Width	90 or 111	± 1.5
Thickness	40 or 44	± 1.5

Note: Tolerance and Dimensions for selected hand moulded bricks ± 4mm in length and ± 3mm in width and thickness.

**Sampling and Tests :**

Samples of bricks shall be subjected to the following tests:

- Dimensional tolerance.
- Water absorption.
- Efflorescence.
- Compressive strength.

**Sampling:**

For carrying out compressive strength, water absorption, efflorescence and dimensional tests, the samples of bricks shall be taken at random according to the size of lot as given in Table 3 below. The sample thus taken shall be stored in a dry place until tests are made. For the purpose of sampling, the following definition shall apply:

- Lot : A collection of bricks of same class and size, manufactured under relatively similar conditions of production. For the purpose of sampling a lot shall contain a maximum, of 50,000 bricks.

In case of consignment has bricks more than 50,000 of the same classification and size and manufactured under relatively similar conditions of production, it shall be divided into lots of 50,000 bricks or part thereof.

- (b) Sample: A collection of bricks selected for inspection and/or testing from a lot to reach the decision regarding the acceptance or rejection of the lot.
- (c) Defective: A brick failing to meet one or more of the specified requirements.  
The samples shall be taken as below :
- (i) Sampling from a stack: When it is necessary to take a sample from a stack, the stack shall be divided into a number of real or imaginary sections and the required number of bricks drawn from each section. For this purpose bricks in the upper layers of the stack shall be removed to enable units to be sampled from places within the stack.

**NOTE:** For other methods of sampling i.e. sampling in motion and sampling from lorries or trucks, IS: 5454 may be referred.

Scale of sampling and criteria for conformity for visual and dimensional characteristics:-

Visual characteristics: The bricks shall be selected and inspected for ascertaining their conformity to the requirements of the relevant specification.

The number of bricks to be selected from a lot shall depend on the size of lot and shall be in accordance of Col. 1 and 2 of Table 3 for visual characteristics in all cases and dimensional characteristics if specified for individual bricks.

- (ii) **Visual Characteristics:** All the bricks selected above in accordance with Col. 1 and 2 of Table 3 shall be examined for visual characteristics. If the number of defective bricks found in the sample is less than or equal to the corresponding number as specified in Col. 3 of Table 3 the lot shall be considered as satisfying the requirements of visual characteristics, otherwise the lot shall be deemed as not having met the visual requirements.

- (iii) **Dimensional Characteristics:** The number of bricks to be selected for inspecting the dimensions and tolerance shall be in accordance with Col. 1 and 4 of Table 3. These bricks will be divided into groups of 20 bricks at random and each of the group of 20 bricks thus formed will be tested for all the dimensions and tolerances. A lot shall be considered having found meeting the requirements of dimensions and tolerance if none of the groups of bricks inspected fails to meet the specified requirements.

**TABLE-3**

**Scale of sampling and permissible number of defectives for visual and dimensional characteristics.**

No. of individual bricks of the lot	For Visual characteristics specified for group of 20 bricks-	For dimensional characteristics	bricks in for
	No. of bricks to be selected	Permissible No. of defective in the sample	bricks to be selected.
(1)	(2)	(3)	(4)
2001-10000	20	1	40
10001-35000	32	2	60
35001-50000	50	3	80

Note: In case the lot contains 2000 or less bricks the sampling shall be as per decision of the Engineer-in-charge.

- (iv) **Scale of sampling and criteria for physical characteristics.**

The lot which has been found satisfactory in respect of visual and dimensional requirements shall be next tested for physical characteristics like compressive strength, water absorption, efflorescence as specified in relevant material specification. The bricks for this purpose from

those already selected above. The number of bricks to be selected for each of these characteristics shall be in accordance with relevant columns of Table 4.

**TABLE 4**  
**Scale of sampling for physical characteristics**

Lot size	sample size for compressive strength, water absorption and efflorescence	Permissible No. of defectives for efflorescence
(1)	(2)	(3)
2001-10000	5	0
10001-35000	10	0
35001-50000	15	1

Note: In case the lot contains 2000 or less bricks the sampling shall be as per decision of the Engineer-in-charge.

- (v) A lot shall be considered having satisfied the requirements of physical characteristics if the condition stipulated here in are all satisfied.
- (a) From the test results or compressive strength, the average shall be calculated and shall satisfy the requirements specified in relevant material specification.  
Note: In case any of the test results for compressive strength exceeds the upper limit for the class of bricks, the same shall be limited to the upper limit of the class for the purpose of averaging.
- (b) Wherever specified in the material specification, the compressive strength of any individual bricks tested in the sample shall not fall below the minimum average compressive strength specified for the corresponding class of brick by more than 20 per cent.
- (c) From the test results for water absorption, the average for the bricks in the sample shall be calculated and shall satisfy the relevant requirements specification in material specification.
- (d) The number of bricks failing to satisfy the requirements of the efflorescence specified in the relevant specification should not be more than the permissible no. of defectives given in Col. 3 of Table -4.

#### **Physical Requirements**

Facing bricks shall be of class designation 75 unless otherwise specified. Average compressive strength shall not be less than 7.5 N/mm<sup>2</sup> water absorption shall not exceed 20 per cent by weight and efflorescence rating shall be nil when tested in accordance with the procedure laid down and tolerance in dimensions shall be checked as per the procedure laid down in Appendix A-2.

#### **Mortar, Soaking of Bricks and laying:**

**Mortar:** The mortar for the brick work shall be as specified, and conform to accepted standards. Lime shall not be used where reinforcement is provided in brick work.

**Soaking of Bricks :** Bricks shall be soaked in water before use for a period for the water to just penetrate the whole depth of the bricks. Alternatively bricks may be adequately soaked in stacks by profusely spraying with clean water at regular intervals for a period not less than six hours. The bricks required for masonry work using mud mortar shall be soaked. When the bricks are soaked they shall be removed from the tank sufficiently early so that at the time of laying these are skin-dry. Such soaked bricks shall be stacked on a clean place where they are not again spoiled by dirt earth etc.

Note I: The period of soaking may be easily found at site by a field test in which the bricks are soaked in water for different periods and then broken to find the extent of water penetration. The least period that corresponds to complete soaking will be the one to be allowed for in construction work.

Note II: If the bricks are soaked for the required time in water that is frequently changed the soluble salt in the bricks will be leached out, and subsequently efflorescence will be reduced.

**Laying :** Bricks shall be laid in English Bond unless otherwise specified. For brick work in half brick wall, bricks shall be laid in stretcher bond. Half or cut bricks shall not be used except as closer where necessary to complete the bond. Closers in such cases, shall be cut to the required size and used near the ends of the wall. Header bond shall be used preferably in all courses in curved plan for ensuring better alignment.

**Note:** Header bond shall also be used in foundation footings unless thickness of walls (width of footing) makes the use of headers impracticable. Where thickness of footing is uniform for a number of courses, the top course of footing shall be headers.

Joints in the exposed brick work shall be truly horizontal and vertical and kept uniform with the help of wooden or steel strips. The thickness of all types of joints including brick wall joints and cross joints shall be such that four course and three joints taken consecutively shall measure as follows:

- (i) In case of modular bricks conforming to IS : 1077 specification for common burnt clay buildings bricks, equal to 39 cm.
- (ii) In case of non-modular bricks, it shall be equal to 31 cm.

**Note:** Specified thickness of joints shall be of 1 cm. Deviation from the specified thickness of all joints shall not exceed one-fifth of specified thickness.

### **Curing and Scaffolding**

**Curing:** The brick work shall be constantly kept moist on all faces for a minimum period of seven days. Brick work done during the day shall be suitably marked indicating the date on which the work is done so as to keep a watch on the curing period.

**Scaffolding:** Scaffolding shall be strong to withstand all dead, live and impact loads which are likely to come on them. Scaffolding shall be provided to allow easy approach to every part of the work.

**Double Scaffolding:** Where the brick work or tile work is to be exposed and not to be finished with plastering etc. double scaffolding having two independent supports, clear of the work, shall be provided.

### **B) Designer Tiles / Dholpur stone / Red stone work**

- 1 All concrete/plastered surfaces to receive stone cladding shall be properly hacked and cleaned of all loose particles and wetted with sufficient water.
- 2 Dholpur/Red stone slab of required size, 20-25 mm thick to be fixed over Laticrete adhesive.
3. Laticrete is a dry set adhesive, use with water or latex additives.
4. The stone shall be secured to the bracing by means of clamps @ 4 min/ Sqm.
5. Measurement The finished length accurate to second decimal shall be measured.
6. Rate shall include all materials, labour and other accessories required to complete the work at all heights and depths as required at the site.

### **LATICRETE ADHESIVE FOR WALLS**

- a) **Material for Plastering :** The product shall be a mix of cement and clean sand in a ratio of 1:6, the applied plaster shall be cured for at least 7 days prior to fixing tiles. Standard procedures shall be adopted to install a plaster of high strength with a good bond between the masonry surface and the new plaster, The plaster should be free of cracks for durable installation of tiles.
- a) **Material for fixing Tiles:** The product shall be laticrete 111 crete filler powder mixed with Laticrete 73, latex admix as manufactured by Laticrete International/ Laticrete India Pvt. Ltd. The tile adhesive formed shall have high bond strength, weather, thermal and shock resistance.
- b) **Material for Grouting: Material for grouting i.e joint filling shall be Laticrete 500 series grout mixed with laticrete 282 grout admix for joints 3mm-12mm as manufactured by Laticrete International/ Laticrete India Pvt. Ltd. The grout formed shall be strong, resistant to weather, cracking and discoloration.**

**C. Flakes – Granite Finish on cement plaster**

'Flakes – Granite finish' shall given on the external surfaces of building as per detailed elevation drawings.

"Flakes – Granite finish " is a textured surface coating material manufactured by Bakelite Hylam Limited/ Spectrum.

"Flakes – Granite finish" comes in a three packs comprising 'Dry Granite Flakes' 'Flakes Bonding Agent' and Top coat (HGTC). Dry Granite Flakes' are made from china clay, pigments (primarily inorganic), Homo-polymer emulsion, mica etc. 'Flakes Bonding Agent' is made from pure acrylic co-polymer emulsion, broad-spectrum fungicide etc. Top coat (HGTC) is made from solvent based acrylic polymer.

The 'Dry Flakes' are mixed with 'Flakes Bonding Agent' is recommended quantity of water. The dough is then trowelled on to the substrate to be coated to get an average coating thickness in the range of 0.8-1.2mm. After through drying of coated Granite flakes the surface is sanded and dust is removed. Top coat is then applied using a brush.

Granite finish " shall be applied only be an authorized dealer of Bakelite Hylam Limited/ Spectrum, with the help of a trained applicator, in accordance with the Company's 'Application Instructions'.

**SUBHEAD – PLASTIC EMULSION AND FINISHING**

1. Emulsion shall be provided to all ceiling and internal surfaces of lofts staircase, stair lobby and of all building as shown on drawings.
2. Emulsion of approved shade shall be provided to all internal surfaces of walls as shown on drawings.
3. Before application of Emulsion the surfaces shall be prepared to a clean and even surface.
4. Emulsion shall be carried out in three coats.
5. Emulsion shall be carried out over white cement based putty as per manufacturer instructions to give even shade.
6. Emulsion shall be applied in specified coats by using flat brushes or spray pumps. Each coat shall be allowed to dry before next coat is applied, if additional coats than what have been specified are necessary to obtain uniform and smooth finish, it shall be given at no extra cost.
7. The finished dry surface shall not show any signs of cracking and peeling nor shall it come off readily on the hand when rubbed.

**WALL PUTTY :****APPLICATION**

1. Before applying remove all loosely adhering material from the wall surface with sand paper, putty blade or wire brush.
2. Moisten the walls with sufficient quantity of water.
3. Mix the putty with 40- 50% water to make a workable paste.
4. Apply the first coat of putty on moistened surface from bottom to up words uniformly and left to dry for at least 3 hours.
5. Apply second coat and allows to dry for one day and finally rub the surface with fine emery paper to remove unevenness and to get glossy white surface.
6. Emulsion shall be applied in specified coats by using flat brushes or spray pumps. Each coat shall be allowed to dry before next coat is applied, if additional coats than what have been specified are necessary 1to obtain uniform and smooth finish it shall be given at no extra cost.
7. The finished dry surface shall not show any signs of cracking and peeling nor shall it come off readily on the hand when rubbed.

**PAINTING**

1. **Cement Base Paint:** Before the application of cement based paints, the surface shall be cleaned and wetted with water. Two or more coats of cement base paint shall be applied to give even shade on all external cement plaster surfaces, internal cement plaster surfaces of parapets, soffits of chajjas, lintels, beams, and sills as shown on drawings. The shade of the paint shall be used as approved by Engineer in charge/ Architect. Each coat shall be cured well by wetting surfaces for at least three days. This shall apply to all buildings.
2. **Painting to Steel Surfaces:** All exposed steel surfaces shall be prepared, cleaned with sand paper to completely remove scales and rusts and shall be painted with two or more coats of synthetic enamel paint to give an even shade over one coat of steel primer. The shade of synthetic enamel paint shall be as approved by Engineer in charge/ Architect.
3. **Painting to CI and GI Pipes :** All exposed CI and GI pipes shall be painted by applying two or more coats of synthetic paint. The shade and quality shall be as approved by Architect/ Engineer in charge.

MODE OF MEASUREMENTS : The method of measurement for various items in the tender shall be generally in accordance with the IS :1200 subject to the following :  
The following multiplying factors for obtaining equivalent areas shall be adopted.

S.No.	Description of Work.	Multiplying Factor	How Measured
1	Panelled, or framed and braced ledged and including CHOWKAT or Side joinery frame. Edges, chocks, cleats, etc., shall be deemed to be included in the item.	1.30	(for batted and braced)
2	Flush joinery measured flat (not girthed) Edges, chocks, cleats, etc. Shall be deemed to be included in the item.	1.20	(for including CHOWKAT or frame. Each side)
3	Fully glazed or Measured flat (not girthed) or each side) frame. Edges, chocks etc., shall be deemed to be included in the item.	0.80	(for gauzed joinery including CHOWKAT cleats,
4	Partly paneled and Measured flat (not girthed), including CHOWKAT or each side) gauzed joinery frame. Edges, chocks, cleats, etc., shall be deemed to be included in the item.	1.00	(for partly glazed or
5	Fully venetioned or Measured flat (not girthed), including CHOWKAT or frame. Each side) gauzed joinery Edges, chocks, cleats, etc., shall be deemed to be included in the item.	1.80	( for louvred joinery or including
6	Weather boarding Measured flat (not girthed), side) not be measured separately.	1.20	(for supporting framework shall each
7	Wood shingle roofing Measured flat (not girthed)	1.10	( for each side)
8	Boarding with cover Measured flat (not girthed)	1.05	( for fillets and match each side) boarding.
9	Tile and slate battening Measured flat (not girthed) painting for open spaces. All over)	0.80	( for no deduction shall be made
10	Trellis ( or JAFRI Measured flat over all; no made painting two – way. For open spaces; supporting all over) members shall not be measured separately	2.00	(for work) one – way or deduction shall be
11	Guard bars, Measured flat over all; no made painting gratings, grills for open spaces; supporting members shall not berailings.	1.00	(for balustrades, gates, deduction shall be all over) expanded metal and
12	Gates, and open Measured flat over all; made for painting including standards, open spaces; supporting members shall not be measured separately.	1.00	(for palisade fencing, no deduction shall all over) braces, rails, stays,etc.
13	Carved or enriched measured flat	2.00	(for work each side)
14	Steel roller shutters Measrued flat ( size jamb guides, bottom rails and locking arrangement, etc., shall be included in the item ( top cover shall be measured separately)	1.10	( for of opening) overall each side)

15. Plain sheet steel measured flat ( not girthed) 1.10 ( for doors and windows. Including frame, edges, etc each side)
16. Fully glazed or gauzed measured flat ( not girthed) 0.50 ( for steel doors and windows including frame, edges, etc. each side)
17. Partly paneled and measured flat (not girthed 0.80 ( for partly glazed or gauzed including frame, edges, etc. each side) steel doors.
18. Collapsible gate measured (size of opening) 1.50 (for painting all over)

NOTE : The height shall be taken from the bottom of the lowest rail, if the palisades do not go below it ( or from the lower end of palisades, if they project below the lowest rail) upto the top of palisades, but not upto the top of the standards, if they are higher than the palisades. Similarly for gates depth of roller shall not be considered while measuring the height.

### **EXPANSION JOINT**

#### **POLYSULPHIDE SEALANT :-**

It should conform to BS – 4254 – 1983

Surface should be clean, dry and free from any loose material.

Masking tapes are to be used on edge of the joint.

Sealant shall be applied by using suitable gun.

Immediately after filling the joints, the sealant shall be tooled either with stainless steel or wooden spatula of the size of the joint, while tooling the spatula should be wetted with soap water for wetting.

The rate shall be inclusive of all operation i.e labour, material, T & P, scaffolding etc. complete. Nothing extra shall be payable on any account.

Skin contact shall be avoided.

Polyurethane Sealant Surface should be clean, dry and free from any loose material.

Expanded polyethylene backup rod of diameter ( diameter of the rod should be 5mm greater than the width of the joint) of density not less than 28 kg/cum should be provided to allow unrestrained stretching of the sealant.

Masking tapes are to be used on edge of the joint.

Filling the joint up to a depth of 12mm / 15mm for joint width 25m/40mm respectively.

Immediately after filling the joints, the sealant shall be tooled to ensure neat and clean finish of the joint.

Skin contact shall be avoided.

Rates shall be inclusive of all operations including labour material, backup rod, T&P scaffolding etc. complete. Nothing extra shall be payable on any account.

### **SUBHEAD - INTERNAL PLUMBING WORK**

#### **(INTERNAL WATER SUPPLY , PLUMBING, INTERNAL DRAINAGE)**

#### **GENERAL**

1. (a) The form of contract shall be according to the "Conditions of Contract". The following clauses shall be considered as an extension and not in limitation of the obligation of the Contractor .
- (b) Work under this contract shall consist of furnishing all labor, materials, equipment and appliances necessary and required. The Contractor is required to completely furnish all the plumbing and other specialized services as described hereinafter and as specified in the schedule of quantities and/or shown on the plumbing drawings.
2. Scope of internal water supply, plumbing, internal sewerage and drainage shall consist of providing and fixing of the following for each blocks as shown on drawings.
  - (a) GI pipe with fittings and valves for cold and hot water supply.
  - (b) Sanitary fixtures, CP fittings and accessories.**
  - (c) Soil, waste, vent, rain water pipes and fittings.
  - (d) Overhead water tank at Terrace with supports.

- (e) Internal Drainage including gully traps.
3. The entire work shall be carried out by licensed plumbers.

#### **Water Supply**

4. Scope of internal water supply will include the following for each Blocks :-
- (a) One over head water tank of capacity as specified 3 layered PEF insulated for each block complete with all fittings including Man Hole cover, Ball valve and necessary supports for fixing on terrace/roof, as per details shown on the drawings.
- (b) All GI pipes and fittings from over head tank to all taps, wall mixers, wash basins, cisterns, sinks, geyser points, washing machine and showers as shown on drawings.
- (c) Provision of hot and cold water supply lines in all toilets and kitchen .

**NOTE :** External water supply distribution mains including water services connection of each Block up to OH tanks (at terrace) and control valves for water supply lines.

#### **MATERIALS**

1. All GI pipes shall be galvanized steel tubes medium grade conforming to IS-1239 and ISI marked of approved makes.
2. All GI fittings shall be conforming to IS-1879 and ISI marked.
3. Valve shall be heavy Gun metal full way conforming to IS-778-1971 class I and ISI marked.

#### **LAYING, FIXING AND FITTINGS OF GI PIPES**

1. All GI pipes below ground shall be laid in trenches and shall have minimum cover of 600mm.
2. The runs of the pipes shall be straight and pipes shall not run diagonally. Proper bends, elbows, tees at turnings/corners shall be used.
3. All GI pipes with necessary fittings wherever they are laid on internal faces of the walls shall be concealed in chase. On external faces they will be laid on walls fixed with G.I. clamps or on M.S. angle iron brackets as shown in drawings.
4. In the concealed portion of plumbing no joints shall be provided in the pipe lines except in the fittings i.e., bends, elbows, tees and nipples where required.
5. All GI pipes for water supply (Hot or cold) within toilets and kitchen shall be laid in walls only. No GI pipe shall be laid in sunken portion of toilets/kitchen.
6. For each block the size of down comers, branch pipes from the ring (at terrace) from over head tank and branch pipes from down comers shall be of sizes as shown on drawing.
7. Pipes and fittings shall be jointed with screwed fittings, care shall be taken to remove burs from the end of the pipe after cutting by a round file. Genuine white/red lead and a few strands of cotton thread shall be applied. All pipes shall be fixed in accordance with layout shown on the drawings. Care shall be taken to avoid air pockets. GI pipes inside toilets shall be fixed in wall chases at least 30cm above the floor.
8. GI pipes in shafts and other locations shall be supported by GI clamps of design as indicated in the Typical detail. Pipes in wall chases shall be anchored by iron hooks.
9. **Unions:** Contractor shall provide adequate number of unions on all pipes to enable dismantling later. Unions shall be provided near each gun metal valve, stop cock, or check valve and on straight runs as necessary at appropriate locations as per direction of Engineer in charge of SBH/ Architect.
10. **Puddle Flanges:** Puddle flanges shall be provided to all connection i.e. inlet overflow, and scour of the over head tank wherever required.
11. **Pipe Protection :** All pipes in chase or under floors or below ground shall be protected against corrosion by applying two coats of bitumen paint, covered with polythene tape and finished with final coat of bitumen paint.
12. **Painting:** All exposed pipes shall be painted with two coats of oil paint over one coat of primer. pipes shall be painted to standard color code as approved by Engineer in charge/Architect.
- Over Head Tanks**
- (a) RCC Over Head Water Tanks shall be provided at terrace as shown in the drawing.
- (b) These tanks shall be constructed on the roof terrace as per details shown on drawings.
- (c) Each over head tank shall be complete with the following:



- i) Inlet, outlet, over flow(25mm), scour pipe (20mm) and Air vent pipe with all fittings.
  - ii) Mosquito proof coupling shall be provided to overflow and air vent pipes.
  - iii) The inlet pipe to the over head tank shall be provided with ISI marked full way gunmetal brass valve and each outlet pipe shall be provided with ISI marked full way gunmetal valve of size of out let pipe as shown in the drawing.
  - iv) The over flow pipes shall be brought down up to the finished terrace level on terrace.
- (d) Vent pipes : Each down take pipe shall be provided with a vent pipe. The height of the vent pipe shall be 150mm above the top of the water tank.

#### **Testing of GI pipes**

- (a) All pipe lines shall be tested hydraulically to pressure of 7Kg./Sq.cm. for a minimum period of 24 hours for leakage.
- (b) The pipe line in chase of under floors/ground shall be covered up only after the testing is carried out satisfactorily and passed by the Engineer in charge/Architect.
- (c) The instrument, equipment and water for testing shall be arranged by the contractor without extra charges. (i.e. Hydraulic testing machine with pressure gauge).
- (d) A test register shall be maintained by the Engineer in charge and all entries shall be signed and dated by the Contractor, Engineer in charge/Architect.

#### **Insulation**

- (a) Hot water line in chases shall be provided with 20mm thick insulation by wrapping 6mm dia asbestos rope and finishing with a coat of 85% magnesia.

#### **Approval of layout of GI pipes and position of fixtures at site**

- a) The Contractor shall mark the location of all fixtures and fittings and layout of GI pipes on the terrace walls/ground at site and taken approval of Engineer in charge/Architect before commencement of cutting chases for GI pipes within the building and digging trenches outside the building.

#### **Sanitary Fixture and CP Fittings and Accessories**

- a) All sanitary ware shall be first quality white-vitreous china and shall be inclusive of all fixing devices nuts, bolts and hangers/Brackets.  
These shall be from one of the following manufactures:-
  - a) Hindustan Sanitary Ware
  - b) Parry Ware
  - c) Hydrobath
- b) It will be ensured that all sanitary fixtures are from one manufacturer only for the entire work. However, if due to any reason contractor proposes to provide part quantity from other manufacturer as approved above, then he may be permitted, but he will have to obtain specific approval of Engineer in charge/Architect for this change in brand. This will be subject to that all items and fixtures in any particular block/other buildings shall be always of one manufacturer only. In no circumstances items of two manufacturers shall be used in all of the toilets of particular block/other buildings.

#### **Kitchen sink and draining Board:**

- a) Kitchen sink and draining boards shall be of stainless steel (NIRALI) make. The sink and draining board shall be in one piece of following sizes with rectangular compartment/bowl. Each sink shall be provided with one CP brass waste and PVC waste pipe.
- c) Kitchen Sink shall be supported on RCC platform having suitable cut for the bowl of the sink as per the details shown on the drawings.
- e) All bib cocks, stop cocks, angle-valves, pillar taps, mixtures, showers rose & arm, bottle traps, CP waste and inlet connections and other minor fittings shall be brass chromium plated. These shall be ISI marked where manufactured. Contractor shall obtain the approval of the name of the manufacturer and brand of CP brass fittings from Engineer in charge/Architect before placing the supply order. If demanded, a copy of the Bureau of Indian Standard letter

under which the manufacturer has been issued the license and authorized to mark the five items of CP brass fittings as listed in hereinafter below with ISI marking should be submitted One sample of each fittings of the particular brand duly ISI marked shall be given by Contractor.

- e) If any of the CP brass fittings which are not manufactured as ISI marked these shall be of the same brand of other ISI marked CP brass fittings approved by Engineer in charge SBOP.
- f) All chromium plated brass fittings and accessories shall be provided with CP cast brass wall flanges.
- g) For fixing of CP brass fittings wherever required CP brass extension pieces shall be provided.
- h) Fixing screws shall be half round head chromium plated brass screws with CP washers.
- i) All exposed pipes, if any, within the toilets and near the fixtures shall be chromium plated brass except otherwise specified.

Schedule of Sanitary and CP Brass fittings in each Block shall be as under :-

(a) **Kitchen**

- (i) Stainless steel Sink with drain board of overall size 510x1060 with bowl size of 500x 400 x 200 mm.
- (ii) CP Brass waste coupling.
- (iii) Sink Mixer
- (iv) GI Waste pipe 40mm dia from CP Waste to floor drain grating.
- (b) Toilets: All vitreous china sanitary wares. The fittings and fixtures in toilets of each Block shall be as under :

(A) **Wash Hand Basin**

- i) Vitreous china first quality.  
wash basin 550x400mm counter top type
- ii) CP Brass waste 32mm dia with over flow.
- iii) CP Brass bottle trap with CP brass pipe to  
**wall with CP brass wall flange.**
- iv) CP Brass Basin Mixer.
- v) CP Brass angle valves with PVC  
connecting pipes with nuts and washers.

**NOTE:** Outlet of CP brass bottle trap shall be connected to nearest floor trap by GI waste pipe (concealed) as per details shown on drawings.

(B) **Water Closets and Cisterns**

- i) European type white vitreous china ware pedestal type and cistern
- ii) White 6.00 litre capacity low level flushing cistern with fittings and C.I /M.S brackets.
- iii) W.C with concealed type flush bend, over flow arrangements, mosquito proof coupling.
- iv) CP brass angle valve with PVC connecting pipe with nut and washer.
- v) Bakelite solid type seat and cover ISI marked Type 1A (IS-2548-1983) with CP brass Hinges commander brand (white colour).
- vi) C.P jet spreader complete set with concealed stop cock.

**BATH TUBS**

Hydro bath make corner model of size 1230 x 1230 x 380mm.  
Hydro bath make rectangular model of size 1690 x 755 x 435mm.

(C) **Urinals**

White vitreous chinaware flat back urinal of size 630 x 400 x 420 mm with 12 mm angle valve, C.P spreader, C.P dome grating, C.P brass flush pipe.

(D) **Shower and Taps**

- i) CP brass wall mixer with bend for over head shower with central control knob for three positions, for supply to spout, second to stop and third for supply of shower.
- ii) 125mm dia CP brass shower rose 15mm with ball joint and 230mm long CP brass extension pipe.

- (E) **Towel Rail**  
i) CP brass towel rail 20mm dia 16 gauge 600 mm long including brackets.
- (F) **Towel Ring**  
i) CP brass towel ring 200 mm dia with CP brass brackets fixed to wall with flanges and CP brass screws.
- (G) Mirror of size as specified in the items and 4mm thickness over every wash hand basin. The mirrors shall be of make Modi float or Atul Brand made from Tata Ashi float glass. The mirror shall have marine ply backing 9mm thick with teak wood moulding all around of size 1-1/2" x 3/4 "
- (H) **Peg Sets:** Aluminium Anodized with 3 hooks.
- (I) **Gratings:**  
i) All floor traps (FT) and floor drains (FD) shall be provided with 100mm round stainless steel gratings respectively of approved design and shape. The weights of 100mm dia gratings shall not be less than 100 gms.  
ii) Gratings for floor drain (FD) below sink in kitchen shall have suitable hole for passing GI waste pipe from sink.

**Geysers:** Scope for arrangement of fixing of Geysers included in this contract is as under :-

- (a) **Residential Block: Arrangement for fixing electric geyser vertical type on each in toilets.**
- (b) **At the inlet pipe of all Geysers one number CP brass angle valve shall be provided.**
- (c) **The ends of inlet and outlet pipes shall be connected with on PVC connecting pipe with CP brass nuts and washers. This is to pass the water from inlet to outlet till Geyser is installed at a later date.**
- (d) Provisioning and fixing of Geysers is beyond the scope of this contract.

#### **Installation of Sanitary Fittings**

- (a) **European Type water closets shall be fixed with brass screws of suitable length with PVC plugs or phill plugs embedded in the floor after drilling hole in floor. It should be coupled with low level flushing cistern complete with rubber cone adapters etc, all as per manufacturer instructions.**
- (b) Wash hand basins shall be fixed firmly to wall with MS angle iron brackets. The brackets shall be given two coats of white enamel paint over a coat of primer. In addition the wash basin shall be securely fixed to walls with a pair of 25x3mm MS clips screwed with rawl plugs to walls (placing of basin over the brackets with out secure fixing on wall shall not be accepted).
- (c) Indian type Water Closets shall be embedded firmly in the floor and its surrounding packed with cement concrete (1:3:6) 40mm graded aggregate below the level of top of the Closet to receive the top layer of floor finish. WC shall be set in the CI trap in cement concrete 1:3:6 (1 cement:3 coarse sand:6 graded stone aggregate 20mm nominal size), joint between WC and Flush pipe will be made in the pre-moulded rubber joint.
- (d) Urinals: Urinals shall be flat back white glazed vitreous china of first quality and size 630 x 400 x 420 mm size.

- (i) **Urinals shall be provided C.P spreader, 32mm dia CP domical waster and C.P angle valve, and shall be fixed to wall by one CI bracket and two CI wall clips complete as recommended by manufacturer's directives/Engineer in charge.**
- (ii) Half stall urinals shall be fixed with C.P. brass screws.
- (iii) Flush pipes shall be G.I. pipes concealed in wall chase but with chromium plated bends at inlets and outlets.
- (iv) Urinals may be flushed with flush valves as described in the item.
- (v) Waste pipes for urinals shall be any of the following.
  - a) G.I. pipes. b) Rigid PVC.Waste pipes may be exposed on wall or concealed chase as directed by the engineer-in-charge.

**Specifications for waste pipes shall be same as given in SUBHEAD II.**

**Internal Drainage:**

Scope of internal sewage disposal and drainage system for all buildings/under this contract will include the following and shall be provided as per the layout/locations shown on drawings:

- (a) GI floor drains in toilets and kitchen.
- (b) HCl waste pipes and their connections up to Gully traps.
- (c) HCl soil pipes and their connections up to nearest manholes.
- (d) Vent pipes with vertical stacks
- (e) All floor traps and gully traps.

**NOTE: SWG** sewerage lines from Gully Trap and nearest manholes onwards shall be measured and paid separately .

**Soil, Waste, Vent and Rain Water Pipes:** All pipes shall be sand cast iron and shall comply to IS-1729 of 1979 and shall be ISI marked. Where shown on drawings the floor drains (FD) shall be of GI pipe medium grade ISI marked.

All cast iron pipes fittings like bends, branches, floor traps, tees 'Y' junctions, in waste, soil and vent pipes shall be sand cast iron comply with IS 1729 and shall be ISI marked. These shall be spigot and socket "Access door shall be made up with 3mm thick insertion rubber washer and white lead. The bolts shall be lubricated with grease or white lead for easy removal later. The fixing shall be air and water tight".

**Cast Iron Traps**

Floor trap shall be cast iron, deep seal with an effective seal of 50mm. The trap and waste pipes shall be set in cement concrete blocks firmly supported on the structural floor. The blocks shall be in cement concrete 1:2:4 (1 cement:2 coarse sand: 4 graded stone aggregate 20mm nominal size) and extended to 40mm below finished floor level. The concrete portion at top of the floor trap inlet shall be finished smooth and water proofed by applying neat cement slurry mixed with water proofing compound. Size of the blocks shall be 30x30cms of the required depth. The trap shall be 100mm inlet and 100mm outlet for kitchen and for toilets. Traps shall have extension pieces to receive waste lines as indicated in typical details.

**Urinal Traps**

Urinal traps shall be cast iron P&S trap with or without vent and set in cement concrete block specified in para above without extra charge.

**Clean out Plugs**

Contractor shall provide cast brass cleanout plugs as required. Cleanout plugs shall be thread and provided with key holes for openings. Cleanout plugs shall be fixed to the pipe by a G.I. socket lead caulked.

**Laying and Joining of CI (Cast Iron) Pipes:**

- (a) Pipes and fittings shall be fixed truly vertical horizontal or in slope as required in a neat workmanship. Pipes shall be fixed in a manner as to provide easy accessibility for repairs and maintenance and shall not cause obstruction in shafts etc.
- (b) All vertical pipes shall be fixed by MS clamps truly vertical Branch pipes shall be connected to the stack at the same angle as that of fittings. No collar shall be used in HCl pipes laid in sunken portion of slabs and vertical stacks. Each stack shall be terminated at top with a cast iron COWL and to the height as specified hereinafter.
- (c) MS clamps shall be standard design and fabricated from MS flat 40x3mm thick anchored directly to walls, concrete slabs, beams or column or as indicated in detailed drawings or and as directed by Engineer in charge/Architect.
- (d) Joints in cast iron soil, waste, vent and rain water pipes shall be lead caulked joints. Quantity of lead to be used for each joint shall be 1.2Kg. for 100 dia pipes, 1.00 Kg. for 75 mm dia pipe and 0.80 Kg. for 50mm dia pipe.
- (e) The water closet in ground, first and second floor shall be connected to the common soil pipe coming vertically downwards along the external face of walls with single branch connections with necessary bends/Y junction containing access doors. A vent pipe shall be provided from the single branch connection at the last floor level (as a continuation of the soil pipe) taken vertically upwards up to 800mm above the top of parapet wall and shall be provided at top with cast iron cowl.
- (f) CI/GI waster pipes and HCl soil pipes laid under floors shall rest in cement concrete 1:2:4 (1 cement:2 coarse sand:4 parts stone aggregate 20mm, 70mm thick minimum) 300mm wide. All pipes and fittings shall also be encased al-round with concrete 1:2:4 70mm thick.
- (g) Floor traps shall have extension pieces to receive waste pipes. Waste pipes from floor traps shall be connected to common waster pipe coming downward along the external face of walls with single branch connections with necessary bends/Y junctions containing access doors. The common waste pipe shall run vertically downwards up to gully trap. A vent pipe shall be provided from the single branch connection at top of parapet wall and shall be taken vertically upward up to 800mm above the top of parapet wall and shall be provided at top with a cowl and fixed with iron clamps.
- (h) Cast iron drain pipes passing under the building shall be laid before commencement of works in foundations and where passing through concrete work inserts/sleeves should be left before casting the concrete.
- (i) Drain pipe shall be laid to levels/slopes indicated in drawings.
- (ii) Soil, waste, vent and rain water pipes in exposed location in shafts and pipe space shall be painted with two or more coats of oil paint to give an even shade. G.I. pipes in chases shall be painted with two coats of bitumen paint.

#### **Gully Traps**

- (a) Gully traps shall be of the same quality as described for stoneware pipes.
- (b) After excavation gully traps shall be fixed on 100 mm thick cement concrete 1:5:10 mix (1 cement:5 coarse sand:10 stone aggregate 40mm nominal size). After fixing the gully trap and pipe a brick masonry chamber 1'x1' inside in 4-1/2" thick brick work around the gully trap in cement mortar 1:5(1 cement: 5 coarse sand) shall be constructed up to the ground level. The space between chamber wall and the trap shall be filled in with cement concrete 1:5:10 (1cement: 5 coarse sand:10 stone aggregate 49mm nominal size). The upper portion of the chamber shall be plastered inside with cement mortar 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement with all corners rounded off sloping towards the grating. A square CI grating shall be fixed on trap inlet.

#### **Testing:**

- a) HCl soil and waste and vent pipes. These shall be tested to hydraulic test of 8 mtr. head.
- b) The joints of CI pipes coming under floors/walls shall be covered up only after testing is carried out satisfactorily and passed by Engineer in charge/Architect.
- c) For SWG pipes test as indicated in particular specification part III shall be carried out.
- d) A test register shall be maintained which shall be signed and dated by Contractor, Engineer in charge and Architect.

Approval of layout of waste/soil/GI/CI/SWG pipes, Floor traps, gully traps and manholes. The Contractor shall mark the location of these pipes, floor traps, gully trap and MG on floors / walls/ground at site and take approval of Engineer in charge/Architect before commencement and

cutting of holes in walls, digging of trenches and laying of pipe lines. Record of these approvals should be recorded in a register and kept in Engineer in charge's office.

**44. LIST OF REGISTERS / RECORDS TO BE MAINTAINED AT SITE BY THE CONTRACTOR FOR THE FOLLOWING MATERIALS / ITEMS**

- Cement
- Steel
- Anti – termite chemical
- Test Reports
- Wood Work
- Hindrance
- Labour wages
- Site Order Book

**Apart from the above, some other registers also to be maintained as and when required.**

**LIST OF MANDATORY TESTS:**

TEST	TEST PROCEDURE	MINIMUM QUANTITY	FREQUENCY
<b>Cement</b>	From Manufacturer		For each lot
<b>SAND</b>			
Silt Content	Field	40 Cum	40 cum or part thereof
Bulking	Field	40 cum	50 cum or part thereof
Particle size distribution	Field	80 cum	Every 80 cum or required in RCC work.
<b>COARSE AGGREGATE</b>		135 cum	Every 135 cum or part thereof for RCC work for rest of work as desired.
Particle size Distribution			
<b>R.C.C.</b>			
Slump			Once a day or as desired.
Cube Strength	From lab	20 cum in slab beams and connected columns 5 cum in column	Every 20 cum of a days concrete. Every 5 cum in column concrete.
<b>BRICKS :</b>			
Water absorption and efflorescence	From lab	Designation 40	One test for each source of manufacture
Compressive Strength	Rom lab	Designation 40	1,00,000 or part there of Two tests for 1 <sup>st</sup> lot of 1,00,000 and one test later for every 2,00,000 and part thereof.
<b>TIMBER :</b>			
Species		1 cum	Every three cum and part.
Moisture		1 cum	Every three cum and part.
<b>ALUMINIUM DOORS, WINDOWS &amp; VENTILATORS</b> Thickness of anodic coating	IS - 5523		5% of Nos. Manufactured.

<u>ORTICE LOCK :</u> Testing of Springs		<u>50 nos</u>	<u>100 OR part thereof</u>
<u>STEEL :</u> A. Tensile Strength	IS 1529	20 Tonne	Every 20 Tonne or part
B. Bend Strength	<u>IS 1529</u>		<u>-- DO --</u>
<u>MARBLE, MOSAIC / TERRAZO TILES</u>			
1. Transverse Strength	<u>IS 1237</u>	<u>10,000 Tiles</u>	<u>10,000 tiles or part</u>
2. Water absorption	<u>IS 1237</u>	<u>10,000 Tiles</u>	<u>10,000 tiles or part</u>
3. Abrasion test	<u>IS 1237</u>	<u>10,000 Tiles</u>	<u>10,000 tiles or part</u>
<u>VITRIFIED TILES, GLAZED TILES</u>			
1. Water absorption	<u>IS 777</u>	<u>10,000 Nos</u>	<u>10,000 or part</u>
2. Craxing	<u>IS 777</u>	<u>10,000 Nos</u>	<u>10,000 or part</u>
3. Impact	<u>IS 777</u>	<u>10,000 Nos</u>	<u>10,000 or part</u>
<u>FLUSH SHUTTER :</u>			
1. End immersion	<u>IS 2202</u>		
2. Knife			<u>No. of shutters</u>
3. Adhesion		<u>22-65</u> 66-100 101-180 181-300 301-500 501-above	1 2 2 3 4 5

1. Cost of testing and transport will be borne by the contractors.
2. Any other material will be tested by contractors at his own cost as per the instructions and Bank from time to time.
3. Frequency stated above is minimum and the contractor may have to test materials with any frequency as instructed by Architect / Client without any cost.

### **FORM OF AGREEMENT**

ARTICLES of AGREEMENT made this \_\_\_\_\_ day of \_\_\_\_\_ year 2016 between the **ZONAL Manager, BANK OF MAHARASHTRA, Hyderabad Zonal Office, Koti, Hyderabad-500001** (Hereinafter referred to as the "Employer/Owner/client" which expression shall, unless excluded by or repugnant to the context, includes its successors and assigns) of the ONE PART and \_\_\_\_\_ of \_\_\_\_\_ (Hereinafter referred to as "Contractor" unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.

WHEREAS the Employer intends to carry out (**furnishing/maintenance work of ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD**) and shall herein after referred to as "Project".

AND WHEREAS the Employer in order to effectively carry out the above said project has engaged \_\_\_\_\_ (Hereinafter referred to as "Architects") to prepare plans, drawings and specifications describing the works to be executed by the contractors, namely, **Interior furnishing/maintenance work of ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD**tc. for the project, to open tenders received at the office of the Employer, to scrutinize and recommend to the Employer the name(s) of the Contractor(s) from whom tenders were received and recommended to the Employer for the issue of work order to the contractor.

AND WHEREAS for the purpose of the above said project, the Employer invited sealed tenders from experienced, resourceful and bonafide contractors vide his Notice Inviting Tender (NO. \_\_\_\_\_ dated.MMMM).

WHEREAS the contractor submitted his Tender Documents containing 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, Declaration, Technical Specifications as in Schedule of Quantities etc. for the above said project, (Hereinafter collectively referred to as the "said conditions"), duly signed on each page as a token of his acceptance of the same, along with requisite Earnest Money Deposit of Rs 52,000/-

AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most suitable for the project.

AND WHEREAS the Employer has accordingly issued the work order (NO. \_\_\_\_\_ dt. \_\_\_\_\_) to the contractor subject to his furnishing the requisite Security Deposit.

AND WHEREAS the Contractor has accepted the aforesaid Work Order vide his letter of acceptance NO. \_\_\_\_\_ dt. \_\_\_\_\_ and has also deposited with the Employer a sum of Rs. \_\_\_\_\_ which with the Earnest Money of RS. \_\_\_\_\_ forms the requisite Security Deposit @ 2 % of the accepted Tender Value of Rs. \_\_\_\_\_.

AND WHEREAS the Employer has caused the plans, drawings, specifications, schedule of quantities etc. relating to the above said project at the work site are to be issued to the Contractor.

NOW, therefore, it is hereby agreed to and between the parties as follows:

1) Contract documents

The following documents shall constitute the Contract Documents.

I. This Article of Agreement.

II. Tender Document submitted by the Contractor including the "said conditions", N.I.T and Schedule of quantity.

III. All correspondence between the Employer and the Contractor from the date of issue of N.I.T and the date of issue of work order.

IV. Work order No. \_\_\_\_\_ dt. \_\_\_\_\_

2) In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions, execute and complete the contracted project works shown upon the said drawings etc. and such further detailed drawings as may be furnished to the contractor by the said Employer and described in the said Specifications and the said Schedule of Quantities.

3) Notwithstanding what are stated in the N.I.T conditions of Tendering, Conditions of Contract of herein stated before, the Employer reserves itself the right of altering the drawings and the nature of the work and addition to or omitting any items of work or of having portions of same carried out departmentally or otherwise and such alterations or variations shall be carried out without prejudice to this contract.

4) As mentioned in Article 1 above, the "said conditions" shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.

5) Any dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the General Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of the Hyderabad thereto. The decision of the arbitration shall be final and binding on both the parties.

IN WITNESS WHEREOF THE PARTIES to there present have hereunder set and subscribed their hands, the \_\_\_\_\_ day, month and year first above written.

Signed and delivered for and on behalf of

BANK OF MAHARASHTRA

Shri. \_\_\_\_\_

\_\_\_\_\_  
Its duly authorized official

In the presence of –

1. (Name and Address)



2. (Name and Address)

Signed and delivered for and on behalf of

The Contractor \_\_\_\_\_ by  
Shri \_\_\_\_\_ his

Duly authorised official

In the presence of –

1. (Name and Address)

2. (Name and Address)

### **GENERAL SPECIFICATIONS ( MATERIAL )**

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 BWR GRADE and IS 710. The plywood so manufactured shall be of Garjancore, 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 Engineer in charge..
9	12mm thick soft boards shall be used for display board only, duly covered with upholstery costing in a range of Rs.100.00 to Rs 125.00 per meter of cloth.
10	All type of work stations i.e. the officer/ clerical tables, counters,work stations etc shall have a foot rest of polished M.T.W. of 4" x 1.5" size and a stand for CPU, made with 19mm ply and fixed on adjacent sides.allinside surfaces of these shall be fixed with 0.8mm thick laminate whether specified in the schedule of quantity or not.
11	Wherever specified the working tops shall be laid with float glass cut to shape and edges polished. The position of wire managers shall be cut to shape precisely.
12	Provisions shall be made within the partitions/ Tables/counters/work places wherever necessary to enable conduit for electrical and LAN cabling.
13	Colour pattern on the walls and the ceiling shall be decided by the Engineer in charge.
14	Keyboards of approved quality to be used.
15	For any type of deviation (to any of above or subsequent instructions), contractor has to procure/ obtain the written instruction of the Engineer-in-charge for the purpose otherwise shall not do.
16	Any discrepancy in the site conditions shall be brought to the notice of the Engineer in charge.
17	The contractors shall visit the site and understand themselves the site conditions, the possible working hours and the resources available, etc., before quoting for the tender.
18	The height of the full height partitions shall be considered only till the false ceiling height, irrespective of the fact that the framework has to be fixed to the RCC slab.
19	Average height shall be considered for the surface area measurements of multi-level partitions, storage units and soft boards.
20	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.

**READ, UNDERSTOOD AND ACCEPTED****SIGNATURE OF THE CONTRACTOR WITH SEAL&DATE****LIST OF APPROVED MANUFACTURERS / NATURAL SOURCES OF MATERIALS TO BE USED IN THE INTERIOR WORKS SUBJECT TO THE APPROVAL OF SAMPLES BY THE EMPLOYER****Furniture works**

APPROVED BRANDS / MAKES OF MATERIALS		
SR NO.	MATERIALS	BRANDS
1	PLYWOOD BWR IS 710 Grade	Greenply / Duro / Euro / Austinply / Goel / Kenwood / Samrat / Hunsur / Sharon Mayur / Sharon / Mayur / Sarda / Century / Uniply / Or equivalent
2	LAMINATES	Formica / Greenlam / Royal touch / Archid / Century / Merino / VIR / Decolam - Decolite / National or equivalent

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 / Araldite / Jivanjhor / Vamicol.
5	HARDWARE: LOCKS, CHANNELS,	Godrej / Tristar / Earlbihari / Dorset / Nimmi / Jyothi, Hettich, Haffle.
6		EarlBihari / Efficient Gardgets / Etalica
7	KEY BOARDS CHANNELS	Earl Bihari, Hettich, Haffle.
8	HANDLES, FITTINGS	Kircheff / Dorset / Hatrdwin / Kich/ Godrej
9	KNOBS	Kircheff /Dorset / Hatrdwin / Kich/ Godrej
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	Birla wall care
14	PAINTS	Nerolac / Asian / Berger / ICI
15	DOOR CLOSERS / FLOOR SPRINGS	Hardwin / Everite / Dorma / Efficient Gadgets.
16	GYPNUM BOARDS	Indian Gypsum / Boral / Lafarge
17	GRID CEILINGS	Armstrong / Cipro / Insula ( Minwool Rock Fibres Ltd)
18	PRELAMINATED SHEETS	Novopan / 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
22	CERAMIC TILES	Asian, Naveen, Somani, Orient, Jhonson
23	CI FITTINGS	Bic / NEKO / NEC,
24	GI VALVES	Zoloto / Rani
25	CEMENT	Ultra tecc / ACC / Orient / Ramco
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, GREENPanelmax Exterior Grade

**NOTE :** The contractor shall use only above mentioned material or the equivalent make of which prior written approval is obtained from the Engineer-in-charge. All materials shall conform to laid down specifications. The contractor shall take this into account while tendering rates / prices.

**CIVIL WORKS**

	<b>MATERIAL NAME</b>	<b>MAKE NAME</b>
1	Construction Chemicals	Fosroc, Roffe, Dr. Fixit or approved equivalent
2.	Cement	PORTLAND, L&T(ALTRATECH), AMBUJA
3.	Aluminium	Jindal, Nalco or approved equivalent
4.	Wood	M.T.W./ B.T.W. as per approval
5.	Tor Steel	TATA or as approved
6.	Poly carbonate sheets	G.E. Lexan or approved equivalent
7.	Mild steel	Box sections etc. of Tata or approved equivalent.
8.	G.I Pipes	Tata, Jindal or approved equivalent.
9	Fixtures	Parryware, Hindware
10	CP fittings	JAQWAR <b>or as approved</b>
11	G.I Bends, elbows	R brand
12	PVC water tanks	Sintex, ISI brand
13	Silicon sealant	GE silicones
14	G.I Valves	Zoloto/ <b>Leader</b>
15	C.I fittings	Nicco, BEC, <b>R.I.F.</b> or approved equivalent.
16	CPVC pipe	Ashirvad, Astral
17	Neru Plaster	More - Brand
18	Seat Covers	Patel, Commander or approved equivalent
19	Kitchen Sink	Neelkanth, Jayna
21.	C.P. Accessories	Picasso
<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	Doorset FS-120 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

**NOTE :**

The contractor shall use only above mentioned material or the equivalent make of which Prior written approval is obtained from the Engineer-in-charge. All materials shall conform to laid down specifications. The contractor shall take this into account while tendering rates / prices.

**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 (**furnishing/maintenance work of ZONAL OFFICE & SULTAN BAZAR BRANCH KOTI, HYDERABAD**) of BANK OF MAHARASHTRA 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, 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 Engineer-in-charge 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

**Witness:**

- 1.
- 2.

**NOTE**

ALL TYPE OF TECHNICAL CLARIFICATIONS (IF ANY) SHOULD FORM A PART OF 77 TECHNICAL BID ONLY. ANY CLARIFICATIONS SOUGHT AFTER OPENING OF THE TENDERS WILL NOT BE ENTERTAINED AT ANY COST.