

# **TAMIL NADU HOUSING BOARD**

## **PRE- QUALIFICATION SCHEDULE PRICE BID**

### **COVER – ‘B’**

**NAME OF WORK :** Area Development Scheme for 83 Nos. of Plots  
(HIG-16,MIG-21,MIG I-45 & Shop-1)inS.F.No.210/1  
Pt, 3Pt.,211/1 & 211/2 B etc., of Future  
development Plots Two Pockets (Zone I & II)  
in Attur Phase - IV Scheme, Salem District

**VALUE OF WORK: Rs. 207.51 LAKHS.**

**EMD AMOUNT : Rs. 1,14,000/-**

**TAMIL NADU HOUSING BOARD**  
**TENDER NOTICE NO. 03 / 2021-2022-(2)**

**Office of the Superintending Engineer, Salem Circle, Tamil Nadu Housing Board** Tenders will be received by the Superintending Engineer/ TNHB, Salem Circle, **at his Office at Cowly Brown road, R.S.Puram, Coimbatore.2 upto 11.00 A.M. on 05.05.2022** for the work of **Area Development Scheme for 83 Nos. of Plots (HIG-16,MIG-21,MIG I-45 & Shop-1)inS.F.No.210/1 Pt, 3Pt.,211/1 & 211/2 B etc., of Future development Plots Two Pockets (Zone I & II) in Attur Phase - IV Scheme , Salem District**

1. The Tender should be in the prescribed form obtainable from Office of the Superintending Engineer, Tamil Nadu Housing Board. The tenders will be opened by the Superintending Engineer, Tamil Nadu Housing Board or his delegate at the place on the date afore mentioned. The tenderers or their agents are expected to present at the time of opening of tenders. The Tender receiving officer will on opening each tender prepare a statement of the attested and unattested corrections therein and hand it over to the tenderers concerned and initial all such corrections in the presence of the tenderer. If any of the tenderers or their agents finds it inconvenient to be present at the time, then, in such case the tender Receiving Officer will on opening the tender of the absentee tenderer make out a statement of the unattested corrections and communicate it to him. The absentee tenderer shall then accept the statement of corrections without any question whatsoever.
2. Tenders must be submitted in sealed covers and should be addressed to the Superintending Engineer, Tamil Nadu Housing Board with the name of the tenderer and the name of the work being noted on the cover.  
 If the tender is made by an individual it shall be signed with his full name and his address shall be given. If it is made by a member of the firm, it shall be signed with the co-partnership name by a member of the firm who shall also sign his own name, and the name address of each member of the firm shall be given. If the tender is made by a corporation, it shall be signed by duly authorized officer, who shall produce with his tender, satisfactory evidence of his authorization. Such tendering corporations may be required before the contract is executed, to furnish evidence of its corporate existence.
3. Each tenderer must also send a certificate of Income Tax from the appropriate income tax Authority in the form prescribed therefore. This certificate will be valid for one year from the date of issue for all tenders submitted during the period.

In the case of proprietary and partnership firm it will be necessary to produce the certificate aforementioned for the proprietors and for each of the partners as the case may be.

If the tenderer is a registered contractor and if a certificate for the current year had already been produced by him during the calender year in which the tender is made it will be sufficient if particulars regarding the previous occasion on which the said certificate was produced are given.

All tenders received without certificate as aforementioned will be summarily rejected.

<b>CONTRACTOR</b>	<b>NO. OF CORRECTIONS</b>	<b>SUPERINTENDING ENGINEER.</b>
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4. \*\* Each Tenderer must pay as earnest money, a sum of **₹ 1,14,000/- (Rupees One Lakh Fourteen Thousand only) favour of Executive Engineer & Admn. Officer, Salem Housing Unit, TNHB, Salem** enclose with this tender the challan in original. This earnest money **will** be refunded to the unsuccessful tenderer on application after intimation is sent of rejection of the tender or at the expiration of 90 days from the date of tender, whichever is earlier. The earnest money will not be received in cash, cheque or Bank Guarantee. Tenders accompanied by cheque, cash or bank guarantee will be summarily rejected.
5. The earnest money will be retained in the case of the successful tendering and will not carry any interest it will be dealt with as provided for in the tender.  
name of work  
Alternatively the earnest money deposit to the required value will be accepted in any one of these forms.  
**Crossed demand draft on any nationalised banks / NSC / IVP in favour of Executive Engineer & Admn.officer, Salem Housing Unit, TNHB, Salem.**
6. When a tender is to be accepted, the tenderer who is under consideration shall attend the office before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the period specified, his tender will not be considered. He shall forthwith upon intimation being given to him of acceptance of his tender make a **security deposit of ₹ 1,14,000/- (Rupees**
7. **One Lakh Fourteen Thousand only) favour of Executive Engineer & Admn. Officer, Salem Housing Unit, TNHB, Salem** it will be informed to the successful tenderer on acceptance of tender and sign agreement in the proper departmental form for the due fulfillment of the contract. This security deposit together with the earnest money and the amount with held according to Clause 64-1 of the General Condition of the TNBP shall be retained as Security for the due fulfillment of his contract. Failure to enter into the required agreement or to make the Security deposit as defined in this paragraph shall entail forfeiture of the earnest money. The written agreement to be entered into between the contractor and the Superintending Engineer shall be foundation of the rights of the both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by the contractor and then by proper officer authorised to enter into contracts on behalf of the Housing Board.
8. The tenderer shall examine clearly the TNBP and General Condition of and sign the copy of the TNBP and its addenda volume in token of such study before submitting his tender unit rates which shall be for finished work in site. He shall also carefully study the drawings and additional specifications and all the documents which form part of the agreement to be entered into by the accepted tender. The Tamil Nadu Building Practice and other documents connected with the contract such as specifications plans descriptive specifications sheet regarding materials etc., can be seen at any time between 11.00 a.m. and 5.00 p.m. on office of the Superintending Engineer aforementioned.

\*A copy of the set of contract documents can also be had on payment of **₹ 15,750/ including 5%GST (Rupees fifteen Thousand seven hundred and fifty only including + 5% GST)** for each set which will not be refunded on any account. Demand Draft drawn in favour of **the Executive Engineer & Adm. Officer/ Salem Housing Unit, TNHB, Salem payable at Salem.** The tenderer's attention is directed to the requirement for materials under the clause "Materials and workmanship" in the Preliminary. Materials conforming to the Indian Standards Specifications shall be used on the work and the tenderer shall quote his rates accordingly.

CONTRACTOR

NO. OF CORRECTIONS

SUPERINTENDING ENGINEER.

9. Every tenderer is expected, before quoting his rates to inspect the site of the proposed work. He should also inspect quarries, and satisfy himself about the quality and availability of materials. In every case the materials must comply with the relevant standard specification. Samples of materials as called for the standard specifications or in this tender notice or as required by the Executive Engineer in any case, shall be submitted for the Executive Engineer's approval before the supply to site of work is begun. The Tamil Nadu Housing Board will not, however, after acceptance of a contract rate pay any extra charges for load or for any other reason, in case the contractor is found later on to have misjudged the materials available. Attention of the contractor is directed to the "Preliminary Specification" regarding payment of seigniorage tools etc.
10. The Tender's particular attention is drawn to sections and clause in the Standard "Preliminary Specification" dealing with.
1. Test, Inspection and rejection of defective materials and work.
  2. Carriage
  3. Construction plant;
  4. Water and Lighting
  5. Cleaning up during progress and for delivery;
  6. Accidents;
  7. Delays;
  8. Particulars of payment;
- \* To be struck out if such copies are not be issued for sale.

The contractor should closely peruse all the specification clause which govern the rate which he is tendering.

10. A Schedule of quantities accompanies this tender notice. It shall be definitely understood that the Superintending Engineer, aforementioned does not accept any responsibility for the correctness or completeness, of this schedule and that this schedule is liable to alterations by omissions, deductions or additions at the discretion of the Executive Engineer, Tamil Nadu Housing Board or as set forth in the conditions of contract. The tenderer will however base his lumpsum tender on this schedule of quantities. He should quote specific rates for each item in the Schedule and the rates should be in Rupees and Paise. The rates should be written both in words and figures and the units in words. The tenderer should also show the totals of each item and the grand total of the whole contract. The schedule "A" accompanying the lumpsum tender shall be written legibly and free from the erasures, overwritings or conversions of figures, corrections, where unavoidable should be made by crossing out, initialling dating and rewriting.

<b>CONTRACTOR</b>	<b>NO., OF CORRECTIONS</b>	<b>SUPERINTENDING ENGINEER</b>
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11. Tenders offering a percentage deduction from or increase on the estimate amount and those not submitted in proper form or in due time will be rejected. Rates or lumpsum amounts for items not called for shall not be included in the tender. No alteration which is made by tenderer in the contract from the conditions of contract, the drawings, specification, quantities accompanying same will be recognized and if any, such alterations are made the tender will be avoided.
12. The tenderer should work out his own rates without reference being made to the Tamil Nadu Housing Board current schedule of rates or to the estimate rates which are not open for inspection by tenderers.
13. The attention of the tenderers is directed to the contract requirements as to time of beginning work, the rate of progress and the dates for the completion of the whole work and its several parts, the following rate of progress and of proportionate value of work done from time to time. As will be indicated by the Executive Engineer's certificates of the value of work done will be required. Date of commencement of this programme will be the date on which the site (for premises) is handed over to the contractor.

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Period after date of commencement	Percentage of work completed (based on contract lump-sum amount)
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<b>1st Month    10%</b>	<b>4<sup>th</sup> Month    70%</b>
<b>2nd Month    30%</b>	<b>5<sup>th</sup> Month    90%</b>
<b>3rd Month    50%</b>	<b>6<sup>th</sup> Month    100%</b>

- Note :** The period to be entered in Column (1) for the purpose of defining the rate of Progress may be fixed by Executive Engineer to suit each case.
14. No parts of the contract shall be subject without written permission of the Superintending Engineer, nor shall transfer be made by power of attorney authorized to receive payment on the contractor's behalf.
  15. If further necessary information is required, the Superintending Engineer of the Tamil Nadu Housing Board will furnish such but it must be clearly understood that tenders must be received in order, and according to instructions.
  16. The Superintending Engineer or other sanctioning authority reserves the right to reject any tenders without assigning any reason therefore.
  17. Preference in the selections from among the tenders will be given. Other things equal, to those who are themselves professionally qualified or who undertake to employ qualified men at their cost to look after the work. The tenderers should therefore state in clear terms whether they are professionally qualified or whether they undertake to employ technical staff and if so to give their professional qualifications or of the staff to be employed. In case the selected tenderer is one who has undertaken to employ technical staff under him he should see that one of the staff is always at site of the work during hours personally checking all items of work and paying extra attention to such works as may demand special attention e.g., reinforced concrete works etc.,

**CONTRACTOR      NO., OF CORRECTIONS      SUPERINTENDING ENGINEER**

18. A tenderer submitting a quotation which the tender accepting authority considers excessive and / or indicate of the insufficient knowledge of current prices or definite attempt at profiteering will tenderer himself liable to be debarred permanently from tendering or for such period as the tender accepting authority may decide.
19. The fact of submitting the tender implies that the tenderers actually inspected the site of works and have examined before tendering the nature and extend of various kinds of soil at various depth and have based their tenders on such examination by them and no future representation in this regard will be consideration.
20. A statement giving brief particulars of equipment and resources that will be put at the disposal of the work under the following classifications should accompany the tender.
  - a) Equipment (Transport for materials viz., lorries and carts, concrete mixers)
  - b) Organization (i) technical and (ii) unskilled.
  - a) Resources in materials like teakwood, steel, etc., and extent to which departmental help is not required for procurement of materials and transport of the same.
  - b) Methods that will be adopted up the work to ensure completion within or less than the time fixed for completion.
21. The Superintending Engineer, reserves to himself the right of allotting the different sub-works to different contractors or to one and the same contractor as he may decide after the receipt of tenders.
22. The Contractors are liable to pay a penalty of not exceeding one percent of the estimated value of work for non employment of the technical staff if the value exceeding Rs. 50,000/-
23. The cost of materials supplied will be recovered from the bills or any other amounts due to the contractor.

<b>CONTRACTOR</b>	<b>NO. OF CORRECTIONS</b>	<b>SUPERINTENDING ENGINEER</b>
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**OFFICE OF THE SUPERINTENDING ENGINEER**

**TAMIL NADU HOUSING BOARD**

**TENDER**

To

**The Superintending Engineer,  
Salem Circle,  
Tamil Nadu Housing Board  
Coimbatore-2**

Date ..... 2022

Sir,

I / We, do hereby tender and, if this tender accepted, undertake to execute the following work, viz.,

**Area Development Scheme for 83 Nos. of Plots (HIG-16,MIG-21,MIG I-45 & Shop-1) in S.F.No.210/1 Pt, 3Pt.,211/1 & 211/2 B etc., of Future development Plots Two Pockets (Zone I & II) in Attur Phase - IV Scheme , Salem District**

as shown in the drawings and described in the specification deposited in the Office of the Superintending Engineer, Salem Circle Coimbatore.2, Tamil Nadu Housing Board, with such variations by way of alterations of additions to, and omissions from the said works and method of payment as are provided for in the conditions of contract for the sum of Rs. ....  
(in words and figures) .....

.....

.....

or such other sum as may be arrived at under the clause of the Standard Preliminary specification relating to "Payment of lump-sum basis or by final measurement at unit price".

I / We have also completed the price list of items of Schedule 'A' annexed (in words and figures) for which I / We agree to execute the work and receive payments on detailed final measurement at Unit Prices.

I / We hereby distinctly and expressly declare and acknowledge that, before the submission my / our tender I / We have carefully followed the instructions in the tender notice and have read the Tamil Nadu Detailed Standard Specification and the Preliminary Specifications therein and that I / We have made such examination of the contract documents and the plans, specifications and quantities and of the location where the said work is to be *done* and such investigation of the work required to be done and

**CONTRACTOR**

**NO. OF CORRECTIONS**

**SUPERINTENDING ENGINEER**

in regard to the material to be furnished as to be enable me / us to thoroughly understand the intention of the same and the requirement, covenants, agreements, stipulations and restrictions contained in the contract, and in the said plans and specification and distinctly agree that I / We will not hereafter make any claim or demand upon the Board based upon or arising out of any alleged misunderstanding or misconception, of mistake on my / our part of the said requirements, covenants, agreements, stipulations restrictions and conditions.

I / We being a registered contractor enclose an income-tax verification / I have already produced and income-tax verification certificate in respect of (here particulars of the previous occasion on which the certificate was produced should be given).

I / We enclose herewith a Demand Draft for the payment of the sum of Rupees (in words and figures) ..... as earnest money not to bear interest. If my / our tender is not accepted; this sum shall be returned to me / us on my / our application when intimation is sent to me / us of rejection or at the expiration of 150 Days from the date of this tender whichever is earlier. If my / our tender is accepted, the earnest money shall be retained by the Board as security for the due fulfillments of the contract. If upon written intimation to me / us by the Superintending Engineer indicating that my / our presence is required for the purpose of enquiry. I / We fail to attend the said office before the end of period specified on such intimation, and if upon intimation being given to me / us by the Superintending Engineer of acceptance of my / our tender. I / We fail to make the additional security deposit or to enter into the required agreement as defined in clause 4 of the tender notice. Then I / We agree to the forfeiture of earnest money. A notice required to be served on me / us hereunder shall be sufficiently served on me / us personally or forwarded to me / us by post (registered or ordinary) or left at my / our address given herein such notices shall be sent by post be deemed to have been served on me / us at the time when-in due course of post it would be delivered at the address to which it is sent.

I / We fully understand that the written agreement to be entered into between me / us and the Board shall be the foundation of the rights of both the parties and the contract shall not be deemed to be complete until the agreement has first been signed by me / us and then by the proper officer authorised to enter into contracts on behalf of the Board.

I am / we are professionally qualified and my / our Qualification is given below:

Name	Qualifications

**CONTRACTOR**

**NO. OF CORRECTIONS**

**SUPERINTENDING ENGINEER**



I / We will employ the following technical staff for supervising the work and will see that one of them is always at site during working hours personally checking all items of works and paying extra attention to such works as require special attention (e.g) Reinforced Concrete Work.

Name of Members of technical Staff Proposed to be employed	Qualifications
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- Note :
- a) The last two clauses should be scored out if the cost of the works involved is less than Rs. 10,000/-
  - b) The tenderers should score out the last clause or the penultimate according as they are themselves professionally qualified or undertake to employ technical staff under them.

**CONTRACTOR**

**NO. OF CORRECTIONS**

**SUPERINTENDING ENGINEER**

**RATE OF PROGRESS****(Fill in under Notice)**

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Period after the	Percentage of work to be	
commencement of	completed on the whole work	

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<b>CONTRACTOR</b>	<b>NO. OF CORRECTIONS</b>	<b>SUPERINTENDING ENGINEER</b>
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## Schedule-A

### TAMIL NADU HOUSING BOARD

#### SCHEDULE OF APPROXIMATE QUANTITIES FOR THE WORK OF

**Area Development Scheme for 83 Nos. of Plot (HIG-16,MIG-21,MIG I-45 &Shop-1) in S.F.No.210/1 Pt, 3Pt.,211/1 & 211/2 B etc., of Future Development Plots Two Pockets (Zone I & II) in Attur Phase - IV Scheme , Salem District**

The quantities here given are those upon which the lumpsum tender cost for the work is based but they are subject to alteration, omission, deduction or addition, as provided for in the conditions of the contract and do not necessarily show the actual quantities of the work to be done. The unit rates noted below are those governing payment for the extras or deductions or omissions or alterations according to the conditions of contract as set forth in the preliminary specification of the Tamil Nadu Building practice and other conditions of specifications of this contract.

It is to be expressly understood that the measured work is to be taken nett. ( Not withstanding any custom of practice to the contrary ) according to the actual quantities when in place and finished according to the drawings or as may be ordered from time to time by the Executive Engineer, as the cost calculated by measurement or weight at the respective prices quoted are for the work in situ and in every respects.

<b>Contractor</b>	<b>No. of Corrections</b>	<b>Superintending Engineer</b>
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## TAMIL NADU HOUSING BOARD

**SCHEDULE 'B'**

Name of Work:- **Area Development Scheme for 83 Nos. of Plots (HIG-16,MIG-21,MIG I-45 & Shop-1) in S.F.No.210/1 Pt, 3Pt.,211/1 & 211/2 B etc., of Future development Plots Two Pockets (Zone I & II) in Attur Phase - IV Scheme , Salem District**

1	posed – <b>Area Development Scheme for 83 Nos. of Plots (HIG-16,MIG-21,MIG I-45 &amp; Shop-1) in S.F.No.210/1 Pt, 3Pt.,211/1 &amp; 211/2 B etc., of Future development Plots Two Pockets (Zone I &amp; II) in Attur Phase - IV Scheme , Salem District</b>
2	<b>Building plans.</b>

**Note: All the drawings can be seen in S.E/Salem Circle / Drawing Branch.**

**Contractor.**

**No.of corrections.**

**Superintending Engineer**

## **TAMIL NADU HOUSING BOARD**

### **ANNEXURE**

#### **PAYMENT OF EMD AND SECURITY DEPOSIT PRESCRIBED ACCEPTABLE FORM**

Circular No. CE / TC / 5 /98 dated 10-06-98

#### **I**

EMD will be accepted in the following form only and any other form for payment of EMD will not be accepted.

- 1) Demand Draft / Banker's Pay orders / Banker's cheque drawn in the name of Exe. Engineer / Tamil Nadu Housing Board of Division concerned (subject to realization of cash)
- 2) A deposit at call receipt duly pledged to the Exe. Engineer / Tamil Nadu Housing Board of concerned Divisions.  
  
(Note item 2 and 3 shall be from Nationalized Bank / Schedule (Indian) Bank)
- 3) Government Securities / Bonds / Certificates duly endorsed / pledged in favour of the Exe. Engineer / Tamil Nadu Housing Board of Division concerned.
- 4) Indra Vikas Patras along with letter (In triplicate) stating that he / they / is / are submitting EMD in the form of IVP & by indicating name of the post office, IVP numbers and value and to mark his / their name in the back side of IVP.
- 5) NSC / KVP pledged in favour of Exe. Engineer / Tamil Nadu Housing Board Division concerned, along with the letter triplicate confirming the pleading scrips to the Exe. Engineer / Tamil Nadu Housing Board (This is not applicable to companies and Institutions)

(Note : Item 2, 3, 4 & 5 above shall be valid for 150 days from the date of opening of Tender (i.e. maturity date of above shall be on or after 150 days from the date of opening of tenders)

II. The successful tenders / Suppliers should furnish security deposit (Including EMD furnished in other forms) in the form of small saving scrips / Deposit accounts.

- 1) NSC / KVP pledged in favour of the Exe. Engineer / Tamil Nadu Housing Board Division concerned along with the letter in triplicate confirming the pledging the scrips to the Exe. Engineer / Tamil Nadu Housing Board (This is not applicable for companies / Institutions)
- 2) I.V.P. along with the letter (in Triplicate) indicating the name of the Post office IVP number and value and confirming to have been furnished the same towards Security Deposits.

**Contractor**

**No. of Corrections**

**Superintending Engineer**

- 3) Other Small Savings scrips / Deposit accounts with the compliance of the stipulation stated in (1) / (2) (as application in this case)
- III. The above are applicable to the Tenderer / firms situated in Tamil nadu only. The tenderers from other states shall remit EMD / SD by means of , Bankers Demand Drafts, Bankers Pay order, payable to the EE / TNHB. Division concerned. Other form of payment of EMD / SD. will not be considered in respect of the tenderers from other states.
- IV. In case of Companies / Institutions, IVP alone will be accepted towards SD, selected Small saving scrips like KVP, NSC. Time Deposit will not be accepted for EMD / SD. The companies / Institutions along with IVP, if furnished for EMD / Security Deposit shall give letter indicating the name of the post office IVP No's and its value and confirming to have been furnished by them towards EMD / S.D. for the tender / Agreement under reference.
- V. Actual purchase cost of small saving scrips will alone be taken as the amount paid by the Tenderer / Contractor. The maturity value will not be considered.
- VI. This shall form part of tender schedule / Agreement and shall supersede any other stipulations made stated elsewhere in the tender schedule / Agreement.

**CONTRACTOR**

**NO.OF CORRECTIONS**

**SUPERINTENDING ENGINEER**

## TAMIL NADU HOUSING BOARD

### List of Electrical Materials and Sanitary fittings & PVC Doors and Windows of approved Brand to be used in TNHB works

Sl.No.	Name of Materials	Company Name	IS No.
<b><u>CEMENT:</u></b>			
1	Ordinary Portland Cement (OPC) 43 grade only	M/s. JSW Cement Ltd	
2	"Bharathi Cement" Ordinary Portland Cement (OPC) 43 grade only	M/s. Bharathi Cement Corporation Pvt. Ltd,	
3	1. "Penna" Ordinary Portland Cement (OPC) 43 Grade. 2. "Penna" Ordinary Portland Cement (OPC) 53 Grade. 3. "Penna" Portland Pozzolana Cement. 4. "Penna" Portland Slag Cement.	M/s. Penna Cement Industries Ltd	
4	1. "Asian" Portland Pozzolana Cement - Part 1 – Fly Ash Based Grade 2. "Asian" Ordinary Portland Cement – 43 Grade	M/s. Asian Cement Concrete and Mineral Corporation	<b>IS 1489 : Part I : 2015</b> <b>IS 269 : 2015</b>
<b><u>STEEL:</u></b>			
1	"GBR TMT" Fe-500, Fe-500D 8mm to 32mm dia	MDS, GEM, HAVELIS, ZETA HPL, SPUTNIK WITH ISI MARK. MARISON	
2	"J.R TMT" Fe-500 GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. J.R. Metal Chennai Ltd	<b>IS 1786 : 2008</b>
3	"Suryadev TMT bar" Fe-500 8mm to 32mm dia	M/s. Suryadev Alloys & Power (P) Ltd	
4	1. "KAMACHI TMX" Fe 500 TMT bars (8mm to 40mm) 2. "KAMACHI TMX" Fe 500D TMT bars (8mm to 40mm) 3. "KAMACHI TMX" Fe 550 TMT bars (8mm to 40mm)	M/s. KAMACHI Industries Ltd	
5	"ARS" Fe-500, Fe-500D, Fe-550D Grade TMT(8mm to 32mm dia)	M/s. ARS Steel & Alloy International PVT LTD	<b>IS 13032-1991</b>
6	"SSI" Fe-500, Fe-500D Grade TMT(8mm to 32mm dia)	M/s. Sakthi Ferro Alloys India Pvt Ltd	

7	1."PULKIT TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PULKIT METALS PVT LTD.	
8	1."PULKIT TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PULKIT METALS PVT LTD.	<b>IS.3043:1987.</b>
9	1."PULKIT TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PULKIT METALS PVT LTD.	
10	1."TULSYAN TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. TULSYAN NEC LTD	
11	1."TRIPLE POWER TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PONNERI STEEL INDUSTRIES	<b>IS 1786 : 2008</b>
12	1."VIKI TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. VIKI INDUSTRIES PVT.LTD	
13	1."FERRON TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. V.V. Iron & Steel Co. (P) Ltd	<b>IS 2830 : 2012</b>
14	1."SUMANGALA TMT" GRADE Fe 500. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. Sumangala Steel (P) Ltd	<b>IS 1786 : 2008</b>
15	1."SUMANGALA TMT" GRADE Fe 500D. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. Sumangala Steel (P) Ltd	<b>IS 1786 : 2008</b>
16	1."THIRUMALA TMT" GRADE Fe 500D. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PRAKASH FERROUS INDUSTRIES PVT LTD	
17	1.. "THIRUMALA TMT" GRADE Fe 550. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PRAKASH FERROUS INDUSTRIES PVT LTD	
18	1.. "THIRUMALA TMT" GRADE Fe 550D. Sizes: 8,10,12,16,20,25,28 & 32mm.	M/s. PRAKASH FERROUS INDUSTRIES PVT LTD	

**TILES:**

1	Orient Bell Vitrified Tiles, Ceramics Floor and Wall Tiles & Pressed Ceramic Tiles (Glazed)	M/S. Orient Bell Limited	
2	"ANUJ" Ceramic wall & Floor Tiles "ANUJ" Vitrified Floor Tiles "ANUJ" Vitrified Parking Tiles "ANUJ" Cool Roof Tiles in all	M/s. Aravind Ceramics Pvt Ltd	



	Sizes		
3	1. "Johnson" (Pressed Ceramic Tiles)	M/s Prism Johnson Limited	<b>IS 15622 : 2017</b>
4	Kajaria Ceramics Tiles	M/s. Kajaria Ceramics limited	
5	1. Pressed Ceramic Tiles 2. Vitreous Sanitary Appliances (Vitreous China) : Part 2 Specific Requirements of wash-Down water-closets 3. Vitreous Sanitary Appliances (Vitreous China) : Part 2 Specific Requirements of Squatting Pans variety Orrisa Pattern and Size 580mm x 440 (in mm) 4. Vitreous Sanitary Appliances (Vitreous China) : Part 4 Specific Requirements of wash basin	M/s. R.A.K. Ceramics India Pvt. Ltd	
6	"Sun heartt Ceramiks" Pressed Ceramic Tiles	M/s. SUNSHINE TILES COMPANY PVT LTD	<b>IS 15622 : 2017</b>
7	"ROOF PLUS" Weather proof SRI Tiles	M/s. MOHNITH TRADERS	

**PAINT:**

1	1. Nippon Paint Samurai- Exterior Emulsion 2. Nippon Paint Vinitex- Interior Emulsion	M/s. Nippon Paint (INDIA) Pvt Ltd	
2	1. "Surfa coats" Cement Paint	M/s. Surfa coats (India) Pvt Ltd.	<b>IS 5410 : 2013</b>
3	1. "Surfa coats" Exterior Emulsion 2. "Surfa coats" Interior Emulsion 3. "Surfa coats" Emerald High Gloss Enamel 4. "Surfa coats" Interior Acrylic Distemper.	M/s. Surfa coats (India) Pvt Ltd.	

**UPVC Pipes:**

1	1. UPVC pipe for Potable Pipe 2. PP-R pipe for Hot and Cold Water (Indo Green) 3. PVC pipe for SWR APPLICATION 4. UPVC Underground Drainage pipe (Eco Drain) Double Wall Corrugated Pipe (Ultra Plus) 5. HDPE Pipe for potable water 6. HDPE pipe for Sewerage 7. STORAGE TANKS	M/s. The Supreme Industries Ltd	
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	8. UPVC Underground Drainage Pipe(New Drain) 9. CPVC pipe (Lifeline) 10. CPVC Fire Sprinkler (Flame Guard) 11. UPVC Screen and Casing Pipe forBore well 12. UPVC pipe (Aqua Gold) 13. SWR Low Noise System(Sky Rise) 14. PE ultra-Manholes		
2	1. Astral Cpvc Pro Pipes & Fittings 2. Astral Aqua safe Agri Pipe & Fittings 3. Astral Ultra drain SWR Pipes & Fittings 4. Astral Foam core Pipes & Fittings 5. Astral UPVC pipes for potable water supplies & Injection moulded PVC fittings with solvent cement joints for water supplies: Part 1 general requirement.	M/s. Astral Poly Technic Ltd	

#### **DOOR LOCKS / FITTINGS:**

1	1. Brand-Mavin 2. Brand-Yale 3. Brand-Lockwood 4. Brand-ENOX	M/s. Mavin Architectural Solutions Pvt Ltd	
2	1.“GLOBAL” Tower Bolts: Part-2-Non-Ferrous Metals. 2.“GLOBAL” Door Handles . 3.“GLOBAL” Non-Ferrous Metal Butt Hinges. 4.“GLOBAL” Non-Ferrous Metal Sliding Door Bolts (Aldrops) for with Padlocks.	M/S. ALUMINIUM UDYOG	<b>IS 204 : Part2 1992</b>

#### **UPVC DOORS:**

1	AMD UPVC Windows	M/s. AMD Overseas Impex (INDIA) Pvt Ltd	
2	1. Qute UPVC Windows 2. Qute Solid UPVC Door with Frame (Bathrooms Toilet doors only)	M/s. Qute Extrusions Pvt Ltd	
3	Prominace UPVC Windows	M/s. Prominace UPVC Window Systems	
4	1. “SIMTA ASTRIX” UPVC WINDOW. 2. “SIMTA ASTRIX” UPVC DOOR PROFILES.	M/S. SIMTA CLEAR COATS PVT LTD	
5	“VENSTER” UPVC WINDOWS AND DOOR	M/s. Aparna Enterprises Ltd.	
6	1. “Sarvesh” UPVC WINDOW. 2. “Sarvesh” UPVC DOOR PROFILES.	M/S. Sarvesh Multi Plast India Pvt. Ltd.	<b>ASTM-P 1525 &amp; 790</b>

**ELECTRICAL ITEMS:**

1	PVC insulated cables for working voltages upto and including 1100V, for Fybros by Kundan cab wires and cables	M/s. Balar Marketting Pvt Ltd	
2	1. ROOPA PVC INSULATED CABLES FOR WORKING VOLTAGES UPTO AND INCLUDING 1100 VOLTS. 2. ROOPA SWITCHES FOR DOMESTIC AND SIMILAR PURPOSES 3. ROOPA PLUGS AND SOCKET OUTLETS OF 250 VOLTS AND RATED CURRENT UP TO 16 AMPERES. 4. ROOPA ELECTRIC CEILING TYPE FANS AND REGULATORS. 5. ROOPA ELECTRICAL ACCESSORIES – CIRCUIT BREAKERS FOR OVER CURRENT PROTECTION FOR HOUSEHOLD AND SIMILAR INSTALLATIONS PART I – CIRCUIT BREAKERS FOR AC OPERATION. 6. ROOPA DISTRIBUTION BOARD & AC BOX.	M/s. Roopa Electricals Pvt Ltd	<b>IS 694 : 2010</b>
3	“Q-FLX”PVC Insulated Unsheathed and Sheathed Cables/Cords with Rigid and Flexible Copper Conductor for rated voltages up to and including 1100V.	M/s. Cybele Industries Ltd	<b>IS 694 : 2010</b>
4	KEI Wires, LT Cables, HT Cables	M/s. KEI Industries Ltd	<b>IS 694 : 2010</b>
5	1. “BENLO” SELF BALLASTED LED LAMPS FOR GENERAL LIGHTING 2. “BENLO” AC SUPPLIED ELECTRONIC CONTROL GEAR FOR LED MODULES 3. “BENLO” FIXED GENERAL PURPOSE LED LUMINAIRES 4. “BENLO” PLUGS & SOCKETS OUTLETS OF RATED VOLTAGE UPTO AND INCLUDING 250V AND RATED CURRENT UPTO 16 AMPS 5. “BENLO” SWITCHES FOR DOMESTIC AND SIMILAR PURPOSE 6. “BENLO” MCB/MCCB 7. “BENLO” RCCB/DB’s/ A/C BOX 8. “BENLO” AC STATIC WATT HOUR METER, CALSS 1 & 2.	M/s. Bentec India Ltd	<b>IS 12640 : Part1 : 2008</b>

6	<p>1. "C&amp;S" Air Circuit Breaker (ACB).</p> <p>2. "C&amp;S" Moulded Case Circuit Breaker (MCCB).</p> <p>3. "C&amp;S" Switch Disconnect or Fuse/SD.</p> <p>4. "C&amp;S" Low-voltage fuses for voltages not Exceeding 1000v ac or 1500v dc: part 2 Fuses for use by authorized persons, sec 1 supplementary requirements.</p> <p>5. "C&amp;S" Contactors.</p> <p>6. C&amp;S" Electrical accessories- circuit breakers for over current protection for household and similar installations, Part 1- Circuit breakers for ac operation.</p> <p>7. "C&amp;S" Residual Current Operated Circuit-Breakers for Household and similar Uses- Part 1: Circuit-Breakers without Integral Over current Protection(RCCBS).</p> <p>8. "C&amp;S" Distribution Boards (DB).</p> <p>9. "C&amp;S" Switches for domestic and similar purposes.</p> <p>10. "C&amp;S" Plugs and socked outlets of 250 volts and rated current up to 16 amperes.</p>	M/s. C & S Electrical Ltd	
7	"AQUARIUS" Conduits for electrical Installations: Part 3 Rigid Plain Conduits of Insulation Materials	M/s. AQUARIUS PVC PIPES	
8	<p>1. "LUKER" Fixed General Purpose LED Luminaries.</p> <p>2. "LUKER" Self ballasted LED Lamps for general lighting services.</p> <p>3. "LUKER"DC or AC supplied electronic control gear for LED modules.</p>	M/s. Luker Electric Technologies Pvt Ltd	
9	"Marison Wires and UG Cables" – PVC Insulated Unsheathed and Sheathed UG Cables/Cords with Rigid and Flexible Conductor and MCB, DB BOX for Rated Voltage Up to and including 1100V.	M/s. Subura Impex Pvt Ltd	<b>IS 694 : 2010</b>
10	<p>1. "Anchor" Switches (Roma Plus) for domestic and similar purposes.</p> <p>2. "Anchor" Plugs and socked outlets of 250 volts and rated current up to 16 amperes.</p> <p>3. "Anchor" Electrical accessories- circuit breakers for over current protection for household and similar installations, Part 1- Circuit breakers for ac operation. (MCB).</p> <p>4. "Anchor" " Residual Current Operated Circuit-Breakers for Household and similar Uses-</p>	M/s. Anchor Electrical Pvt Ltd	

	<p>Part 1: Circuit-Breakers without Integral Over current Protection (RCCBS).</p> <p>5. "Anchor" Low-voltage switchgear and control gear: Part 3 Switches, Disconnectors, Switch Disconnectors and Fuses combination Units.</p> <p>6. "Anchor" Polyvinyl Chloride Insulated Unsheathed, Cables/ cords with Rigid and Flexible Conduits for Rated voltage up to and including 1100V.</p> <p>7. "Anchor" Conduits for Electrical installation: Part 3 Rigid Plain conduits of insulating materials.</p>		
11	PVC Insulated Wires (FR & FRLS) and HT/LT – Power Cable	M/s . POLYCAB INDIA LIMITED	<b>IS 694 : 2010</b>
12	<p>1. "Great White" Switches for domestic and similar purposes.( IS 3854:1997)</p> <p>2. "Great White" Electrical accessories- circuit breakers for over current protection for household and similar installations, Part 1- Circuit breakers for ac operation. (IS 60898:Part 1:2002)</p> <p>3. "GREAT WHITE" Self Ballasted LED lamp for General lighting services.</p> <p>4. "GREAT WHITE" PVC insulated cables for working voltages up to and including 1100 V.</p>	M/s. Great white electrical	<p><b>IS 3854:1997</b></p> <p><b>IS 60898:Part 1:2002</b></p>
13	"P-KRAFT" – PVC Insulated Unsheathed and Sheathed Cables/cords with Rigid and Flexible Conductor for rated voltages up to and including 1100 V.	M/s. Sankeshwara Industries	<b>IS 694 : 2010</b>
14	<p>1. "ORBIT" Switches for domestic and similar purposes. ( IS 3854:1997).</p> <p>2. "ORBIT" Plugs and socket outlets of 250 volts and rated current up to &amp; including 16 amperes. (IS 1293:2005).</p> <p>3. "ORBIT" PVC insulated cables for working voltages up to and including 1100V.</p> <p>4. "ORBIT" PVC insulated (HEAVY DUTY) Electric cables: part 1 for working voltages up to and including 1100 V.</p> <p>5. "ORBIT" Cross linked polyethylene insulated PVC sheathed cables: part 1 for working voltage up to and including 1100V.</p>	M/S. Orbit Industries & Orbit cable (India)	

15	"DECCAN" Submersible Pumpsets.	M/s. Deccan Industries	IS 8034 : 2018
16	"KARVEL" Openwell Submersible Pumpsets.	M/s. Vel Pumpsets	IS 14220 : 2018
<b><u>SANITARY WARES:</u></b>			
1	1. Hindware Sanitary wares. 2. Hindware CP Fittings.	M/s. HSIL Limited	
2	1. "JOHNSON" Copper alloy fancy single taps, combination tap assembly and stop valves for water services. IS 8931: 1993 2. "JOHNSON" Vitreous Sanitary appliances (Vitreous china) Part 2 Specific requirements of wash down water-closets. IS 2556 (Part 2) : 2004 3. "JOHNSON" Vitreous Sanitary appliances (Vitreous china) Part 3 Specific requirements of squatting pans. IS 2556 (Part 3) : 2004 4. "JOHNSON" Vitreous Sanitary appliances (Vitreous china) Part 4 Specific requirements of wash basins. IS 2556 (Part 4) : 2004	M/s. Prism Johnson Limited	IS 8931 : 1993

CONTRACTOR

NO.OF CORRECTION

SUPERINTENDING ENGINEER

**TAMIL NADU HOUSING BOARD**  
**SCHEDULE 'C'**  
**ADDITIONAL SPECIFICATION**

1. The contractor shall make his own arrangements for clean fresh water for use on the work and shall meet all charges therefore.
2. The broken stone for concrete and RCC work shall be granite as passed by the Executive Engineer.
3. SAND & BRICK: River sand will be used in all cases. The bricks shall be stock bricks or good country bricks of fairly uniform size, shape, colour and well burnt.
4. All iron works or steel work of every kind, except such as is to be embedded in cement concrete shall immediately on arrival at the site be, properly scrapped and wire brushed and given a priming coat of lead paint without claim for extra.
5. The teakwood shall be of best Indian Teak wood only and shall be subject to inspection and approval by the Executive Engineer before use on work country wood where specified shall be best and known for scantling and uniform planks.
6. Holes and chases for electric wiring, water supply and drainage etc., shall be provided as directed during the progress of work without any claim for extra,
7. All external corners, edges of beams, edges of doors and windows openings etc. shall be finished sharp using rich mortar if necessary and also finished truly vertical or horizontal as the case may be. The rates for plastering shall include the cost of finishing as above. No extra for finishing the corners, edges of beams, etc., will be paid. The construction of the building will be deemed to be complete only if all the items of work including finishing items contemplated herein are executed. Concrete works.
8. The arrangement of M.S./RTS rods for reinforcement for each RCC works shall be in accordance with working drawings supplied.
9. The contractor has to use steel sheets over wooden frames, providing the required finish to the under side of the slab. Centering and form work shall be provided to the extent and area ordered by the Executive Engineer during the execution. The payment for centering works will be paid after the concrete is laid.
10. All cement concrete for RCC works shall be machine mixed and vibrated.
11. All lime mortar shall be ground in a mortar mill as per TNDSS (MDSS).
12. The rate for brick work in all floors includes the labour charges for fixing the frame of doors and window's and fixing G.I. Pipe outlets for windows and per sub clause 14 of TNDSS (MDD.No.31).

Contractor

No. of Corrections

Superintending Engineer

13. The rate for plastering includes providing cornice, band cornice, ceiling cornice, and skirting wherever necessary as directed by the departmental officers.

14. It is not obligatory to supply any materials (controlled or non-controlled) required for the construction, which are not available in the general stores and the contractor is expected to make; his own arrangements. The quality of these materials shall conform with, the specification given in ISI. If the material is available in the general stores, the contractor should use that materials only and the cost there of will be recovered as per the ANNEXURE. The cost of materials supplied will be recovered from the bills or any other amount due to contractor.

15. M.S. Rod, RTS Rod should be cut and placed as reinforcement with proper care according to the available rod at site, so as to ensure the minimum wastage possible.

Note: No separate charge will be paid to the contractor for straightening the M,S. Rods, RTS Rods if happens to be bend or in coils.

16. The cement brought by the contractor for use on work should be carefully stocked in approved stores and should be used on works as and when required with proper care .

17. All the dismantled portion should be made good, plastered and cement painted etc., to match original surfaces.

18. If the rates are not separately called for, for similar items of works in the works in the different floor the contractor should quote one rate applicable for all the floors indicated in the detailed plans. Any claims for such items floor wise will not be entertained under any circumstances.

19. If night work required to fulfill the agreed rate of progress, all arrangements shall be made by the contractor inclusive of lighting without any claim for extra rate.

20. Rates: The tenderer shall quote their rates for the finished items of work only as given in the schedule. It shall be clearly understood that no increase in rate tendered for will be permissible on any account.

Contractor

No. of Corrections

Superintending Engineer



21. The contractor should not employ the labour below the age of 12 years.

22. The rate for all the items shall be <sup>25</sup>quoted for in the metric units.

23. The tenderer, shall examine closely the general condition of contract of the Tamilnadu Detailed Standard specification issued in the G.O. Ms. No.2659, dt.23.12.1970 and to see the copy kept in the division office in token of such study before submitting his tender. Unit rates which shall be for finished work insite.

24. The electrical works should be executed by a person or firm holding 'A' grade or 'B' grade license issued by Electrical Wireman, Supervisor, contractors, licensing Board and Government of Tamil Nadu.

25. Once the offer of the tenderer is accepted by the Board, If either the tenderers choose to withdraw this tender or for any reason refused to execute the agreement and comply with the terms of the tender and agreement, the amount deposited by the tenderer towards the EMD and A.S.D, shall be forfeited and tenderer shall not be entitled to refund the same (CE/TC/7/79) dt. 14.3.79.

26. The contractor should take risk insurance against fire, other usual risk for all or any loss or damages occasioned by or arising out of acts of God, and in particular un precedent flood, volcanic eruption . earth quake or other convulsion of nature, invasion, the act of foreign enemies, hostilities or warlike operations (before or after declaration of war) rebellion, military or usurped power, such policy should cover the construction period against the risk by the contractor at his /their own cost and produce to the concerned Executive Engineer & Superintending Engineer within one month from the date of execution of the agreement failing which the TNHB shall be entitled to take out what ever policy as may be required to cover those eventualities and to effect recovery towards the cost of such policies from the contractor's payments with a penalty of 50% on the cost of such policiesss.

27. The consumption of lead must be in accordance with the Table, VIII of MDSS No.109. any additional consumption of lead must be intimated to Executive Engineer and Admn. Officer, who will then decided the necessity.

Contractor

No. of Corrections

Superintending Engineer

28. The pipes should not be covered until the Executive Engineer tests and approve the work. If it is covered it must be uncovered by the contractor at his own cost without claiming extra.

29. Any extension of time may not be granted by the authority, unless the delay caused is on departmental side.

30. The contractor should agree for the change of Arbitrator due to change in incumbency or due to change in territorial Jurisdiction.

- a. For Claims upto Rs.10,000/- S.E. of TNHB
- b. Rs.10,001/- to Rs.50,000/- C.E of TNHB
- c. Rs.50,001/- and above referred to the court (CE/TC/24/83, dt.7.9.83).

31. The Board would retain 50% R.M.D. recovered from the contractor for 2 years after the date of completion of work in order to enable the departmental officers to watch the effect of all seasons of the work. After completion of two years, the contractor should produce an indemnity bond for a further period of three years. The EMD., SD and 50% of the RMD shall be released only after the expiry of six months period from the date of completion of the work (CE/TC/24/83 dt 7.9.83).

32. In case of tender at 10% less than the estimate value 1% (One) of the estimate value shall be collected in one lump sum as additional security deposit.

33. It is obligatory on the part of the contractor to effect recovery of Employees Provident fund subscription from Employees who work more than 60 days and remit to the Regional provident Fund Commissioner.

34. The contractor is bound by all the conditions of clauses of the standard preliminary specifications as amended from time to time. If in the course of the contract any G.O. is issued introducing new conditions or clauses (for PWD / other Departments) supplemental agreement must be executed by the contractor.

35. The Security deposit shall be paid by the contractor in the form of small savings scripts and also in the form of Irrevocable Bank guarantee from nationalized banks/scheduled banks can also be accepted and it has to be duly verified with concern bank for genuiness.

36. Contractors special attention is invited to clause 27 and 38 of the preliminary specification on TNDSS and he is requested to provide his own expenses, shed, latrine, and urinal for his workmen.

Contractor

No. of Corrections

Superintending Engineer

37. In respect of the work being transferred from any other circles / Divisions, subdivisions, the S.E, E.E, AEE and A.E who is incharge of Circle / Division / subdivision having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of the Government.

38. Water closet, basins urinals, sinks and other sanitary ware shall be of approved make as required in the relevant items. The fixing of these should be in accordance with the special specifications after the completion of the work.

39. The work shall be carried out with least hindrance of the adjoining building and the contractor shall be responsible if any damage caused to the existing fixtures, electrical fittings etc., in the course of execution and the contractor shall make good any such damages without claim for extra.

40. The clamps of G.I. pipes fittings should not be spaced more than 3'-0" apart from the wooden plug for pipe and bracket fittings should be properly fixed in C.M. 1:3 in holes made in and not hammered into the walls. The size of plugs should be not less than 1 "square at this end and at the other end with the depth of not less than 3".

41. The contractor should procure approved quality of paint only in containers. The above container should be used in the present of the Assistant Executive Engineer and got approved before use. On any account paint in other than original container will not be allowed for use.

42. The contractor shall form his own approach road to the work sites for which no extra will be due to him. On completion of work the contractor shall not be permitted to remove the materials laid for formation of road. If the contractor is allowed to use the existing roads, he shall maintain them in good condition at his own cost throughout the period of contract.

43. The work should be executed in accordance with the circular instruction of the CE issued time to time. Copy of the circular instructions can be perused in circle office during office hours.

44. Copy of latest income tax clearance certificate should be enclosed along with the tender.

45. An authenticated credential in support of experience for the similar works done so far should be enclosed.

46. EMD will be 1% upto Rs.20.00 Lakhs of estimate value plus 1/2% of the amount by which the estimates value exceeds Rs.20 Lakhs

47. Security deposit will be 2% of the contract value minus the EMD already remitted along with the tender.

Contractor

No. of Corrections

Superintending Engineer

48. Recovery under Revenue Recovery Act: - Whenever any amount has to be paid by the contractor in view of termination of the contract by virtue of clause 57.4 (TNBP) or any amount that maybe due or may become due from the contractor under these present and the contractor is not responding to the demand for the payments of the said amount, then the Government, Tamilnadu Housing Board shall be entitled to recover the said amount, as per the provisions of the Tamilnadu Revenue Recovery Act. 1964 (Tami Nadu Act. V of 1864).

49. Brick used should be of class designation 50 i.e. having a crushing strength of not less than 50 kg/cm<sup>2</sup>.

50. The building materials like bricks, tiles etc., the finished products like concrete cubes etc., should be tested in recognized institution as directed by the departmental staff. The expenditure should be borne by the contractor.

51. The tenderers are requested to quote their validity of tender upto 90 days from the date of opening of the tender.

52. The manual workers fund @ 1.00% of actual value of work done may not be collected from the contractor and will paid by the TNHB, which will be directly remitted to the concerned department vide memo.No.(PT1/25800/12 dated 2.1.2015)

53. Impounding minimum 10cm of water over roofs for 48 hours before laying the weathering course and press tiles to check the water tightness. (vide. Memo.No.TC4/68839/95 dated 24.11.95)

54. Xerox copy of the certificate for the technical personnel's to be enclosed along with the tender.

CONTRACTOR

No. of Corrections. Superintending Engineer

55. Withheld amount towards effective performance of the contract do not exceed 10% of the total value of Contract. Present rule of with-holding 5% of bill amount may be followed .

56. Payment of liquidated damages and penalty payable by the contractor in the event of non-fulfillment of any or Whole of the contract.

57. Quantity variation is permissible, to the extend of 25% with prior approval of the authority who accepted the tender provided that total value including variation is within the power of officers concerned. Otherwise, orders of higher authority shall be obtained .

58. In the Case of discrepancy between the prices quoted in words and in figures, the lower of the two shall be considered.

59. The contractors should not be allowed to use water with Saline content. The usage of water with saline content is strictly prohibited.

60. The payment of security deposit, FDR from any Nationalised Bank can also be accepted apart from whatever small savings scripts available in vogue with an understanding from the concerned Bank to release the deposit to Tamil Nadu Housing Board on request unconditionally.

61. Withdrawal of tender on any circumstances after its submission is not acceptable. The name of such of those tenderers will be removed from the list of approved contractors and their tender will not be entertained thereafter and will be summarily rejected.

62. In the event of the work being transferred to any other Unit I Division SubDivision the Exe. Engr. and Admn. Officer, the Asst. Engineer who is in-charge of the unit Division I Sub-Division having jurisdiction even the above work shall be competent authority to exercise all thsse powers and privileges of Tamiladu Housing Board and act on behalf of Tamilnadu Housing Board.

Contractor

No. of Corrections

Superintending Engineer"

63. All the Measuring tapes used on works by Departmental officers and Contractors, Suppliers shall be graduated only in metric units and shall bear the verification Stamping of the department of Legal Meterology (on the end book) Dual Marked (Metric and feet and inches) measuring tapes should not be used by the departmental officers / Contractor; Suppliers. All the tapes should be Confirming to the Standard of weights and measures (General) Rules 1987 (Board Circular memo No. TC4/66896/98dt: 6.10.99).

64 a. The Government of Tamil Nadu by Act 15 of 1999 has introduced section 7F to the Tamilnadu General Sales Tax Act 1959 where in provisions has been introduced for 'Deduction of Tax at Sources in Works Contract' at the time of payment.

b. According to Section 7F of the TNGST Act 1959, every person responsible for paying any sum to any dealer for execution of works contract will deduct Sales Tax at source (from the dealers I Contractors) at the time of payment at the following rates.

- i. Civil works contract : 2% of total amount payable to such dealers
- ii. All other works contract: 4% of the total amount payable to such Dealers.

The amount so deducted shall be deposited to the Assessing Authority of Commercial Tax Department with in 7 days of the amount so deducted along with a statement in the prescribed form (Form) (XXVII).

65. Any change in the existing levy/charges announced by the Government/Authorized body from time to time will be recovered from the payment to the contractor without any prior information.

Contractor	No. of Corrections	Superintending Engineer
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65. For testing the concrete and aggregate the contractor must procure the following equipments and make them available at site.

- a. Steel mould for making 15cm cube of concrete
- b. Slump cone for testing consistency (slump test) the cone will be 30cm height truss casted cone with top and bottom diameters of 10 cm and 20cm respectively. In addition a steel rod 1.5cm dia and 50cm in length and with tamping and rounded is to be procured.
- c. For finding fineness modules and coarse aggregate hand operated Sieve Shaker apparatus may be procured along with weighing machine for weighing the aggregate and the sand.
- d. In the case of any breach of the terms of the contract the contract will be closed at the risk and the cost of contractor in addition to the forfeiture of the EMD and security deposit.
- e. The testing is to be done at the contractor's cost for all building materials and also for concrete cubes.
- f. The work shall be executed and measured as per metric dimension given in the schedule of quantities drawing etc. (F.P. units where indicated are for guidance only)
- g. Unless otherwise specified all the rates quoted by the contractor shall be for works at all levels of the buildings.
- h. Rates for every item of work to be done under this contract shall be for all lifts and leads, heights, depths, lengths and widths Except when specifically mentioned in the item, otherwise nothing extra will be paid on this account The rate for all item in which use of cement is involved is inclusive of charges for curing.

66. If at any time the Executive Engineer shall be of the opinion that the contractor is delaying commencement of the work or violating any of the progress of the site work as defined by the tabular statement rate of progress in the article of agreement, the Executive Engineer shall so advice the contractor in writing and at the same time demand complied. If the contractor neglects to comply with such demand within seven days after the receipt of such notice it shall these or at any time thereafter be lawful for the Executive Engineer to determine the contract which determination shall carry with the forfeiture of the security deposit and the total of the amount withheld from the final bill together with value of such works as may have been executed and not paid for such proportion of such total sums as shall be assessed by the Executive Engineer.

CONTRACTOR      No. of Corrections.      Superintending Engineer

67. Water and lighting : The contractor shall pay all fees and provide water and light as required from Municipal main or other sources and shall pay all charges therefore (including storage tanks, metre etc.) for the use of the works and workman unless otherwise arranged and decided as in writing with Executive Engineer.

The tenderer shall ensure that no damage is caused to the existing structure / building whether it is Government owned or private owned etc. in the adjacent areas close preliminary to the proposed site and if any damage is caused due to pile driving etc. to the adjacent buildings it shall be rectified / compensated by the tenderer at his own cost of the satisfaction of departmental officers / owners of any private building affected (i.e) the contractor should indemnify the department against damages if any to adjacent building due to pile driving.

The contractor has to make his own arrangements for procuring water for construction purpose and curing should be done with water free from injurious amounts of deletion materials portable water are generally considered satisfactory for curing and mixing concrete and masonry. However the water to be used should be periodically tested at contractors cost for its suitability for using the construction work and got approved from Department Engineers.

Electricity: The contractor should make his own arrangements for obtaining electricity for all types of his use like lighting, welding, pumping and mosaic and marble polishing etc. Any damages to work resulting from rains or flame, any other cause until these work is taken over by the department after completion, will made good by the contractor at his own cost.

CONTRACTOR	No. of Corrections.	Superintending Engineer
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**TAMIL NADU HOUSING BOARD**  
**SPECIAL CONDITION FOR TAXES**

- a. The Taxes are applicable for the project with any tax /fund/ charges announced by the State / Central Government will be recovered from the payment to the contractor without prior information and cannot be refunded.
- b. The rates quoted in the tender shall be inclusive of all Taxes like GST etc., as announced by the State/Central Government.
- c. Any change in the existing levy/charges announced by the State/ Central Government from time to time will be recovered from the payment to the contractor without any prior information.

CONTRACTOR

No. of Corrections

Superintending Engineer

**TAMILNADU HOUSING BOARD****SCHEDULE-C****SPECIAL CONDITION FOR "WHITE WASHING"**

1. Each coat of white wash shall be laid on with a brush and allowed to dry before the next coat is applied.
2. A stroke of the brush shall be given from the top down wards another from the bottom upwards over the first stroke and similarly one stroke from the right and another from the left over the first brush before it dries. .
3. The No. of coats to be applied shall be as mentioned in the schedule.
4. The rate should be inclusive of wall cleaning, brushing and all patching must be scraped properly.
5. The old loose white wash is to be first removed and minor repairs to the plaster done, such as filling old holes etc.,
6. Each coat of white wash is to be allowed to dry and should 'be inspected by the subordinate incharge before applying the next coats.
7. The surface shall present a uniform white appearance without exhibiting any patching or hair cracks or streaks.
8. It is the responsibility of the contractor to clean the splashes on the wall, floor and other surfaces and articles to the satisfaction of the Executive Engineer.
9. The ladders, poles, scaffolding, etc. should be shoed with bags to prevent damages or scratching of the walls and floor.

Contractor

No. of Corrections

Superintending Engineer

## **SCHEDULE 'D'**

Applicable to all cases of works where minimum of fifty workers are employed except works relating to roads, channels and canals.

### **For the Provision of Health and Sanitary Arrangement for the Workers.**

The contractor's special attentions is invited to clauses of TNBP and he is requested to private at his own expense the following amenities to the satisfaction of the superintending Engineer.

1. **FIRST AID** At the work site there shall be maintained in a readily accessible place, first aid appliance and medicines including an adequate supply of sterilized dressings and sterilized cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of the responsible person who shall be readily available during working hours.
2.
  - a) Water of good quality fit for drinking purposes shall be provided for the work people on a scale of not less than a gallon per head per day.
  - b) Where drinking water is obtained from an intermittence public water supply, each work place shall be provided with storage tank. Where such drinking water shall be stored.
  - c) Every water supply storage shall be at a distance of not less 50 ft. from any latrine, drain or other source of pollution. Where water has to be drawn from an existing well which is within such of latrine, drain or any other source of pollution the well shall be properly chlorinated before water is drawn from it for drinking.
  - d) All such well shall be entirely closed in and is provided with a trap door which shall be dust and water proof.
  - e) A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or inspection which shall be done at least once a month.

**Contractor**

**No. of Corrections**

**Superintending Engineer**

**3. Washing and Bathing places:**

Adequate washing and bathing places shall be provided, separately for men and women. Such places shall be kept in Glean and drained condition. Bathing for washing should not be allowed in or near any drinking water well.

**4. Latrines and Urinals:**

They shall be provided within the premises of every work places, latrines and urinals in an accessible place and the accommodation separately for each of them. shall be on the following scale as directed by the Superintending Engineer in any particular case :-

- I) Where the No. of persons employed does not exceed 50~2 seats.
- ii) Where the No. of persons employed exceed 50 but does not exceed 100.3 sets.
- iii) For every additional 100.3 slats.

Except in work places provided with water flushed latrine connected with a water bore sewage all latrines shall be provided with respectable on dry earth system which shall be cleaned atleast four times daily and atleast twice during working hours and kept in a strictly sanitary condition, The acceptance shall be tarred inside and outside atleast once a year.

The excrete from the latrine shall be disposed off at the contractor's expenses to the out way pits approved by the local public health authority. The contractor shall also employ adequate No. of scavengers and conservancy staff to keep the latrine and urinals in a clean condition.

**5. SHEDS DURING REST**

At the work site these shall be provided free of cost two suitable sheds one for male and the other for r the use of labours.

**Contractor****No. of Corrections****Superintending Engineer**

6. At every work place at which 50 or more women workers are ordinarily employed there shall be provided two huts of suitable size for the use of children under age of 5 years belonging to such women. One hut shall be used for infants games and play and the other as their shed room The huts shall not be constructed on a lower standard than following.

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

The Use of the huts shall be restricted to children, their attendants and mothers of the children.

## **7. CANTEENS**

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

## **8. SHED FOR WOMEN**

The contractor should provide at his expense sheds for housing his workmen. The shed shall be on a standard not less than the cheep shelter type to live in which the work people in the locality are accustomed to a foot area of about 6' x 5' for 2 persons shall be provided the sheds are to be row with 5 ft. clear space between rows if conditions could permit. The work people shall be laid out in units of 400 persons each unit to have a clear space of 40 ft,

**Contractor**

**No. of Corrections**

**Superintending Engineer**

## **TAMIL NADU HOUSING BOARD**

### **Special Condition for Electrical Works**

(To be enclosed in the Tender Schedule)

1. The work shall be carried out in accordance with the General specification for Electrical works and the code of practice for electrical wiring installation. IS. 732-1963 and I.S 3043 – 1965 and as amended upto date. All installation shall comply with the requirement of Indian Electricity Rules 1956 and Act and I.S code amended upto date.
2. Approval of the Engineer-in-charge shall be taken well in advance for all materials and brand of materials to be used on work by the contractors based on the approved brand of materials list enclosed in the tender. The choice of brand of materials from the approved list is the discretion of the Engineer in-charge and his decision will be final. The contractor is bound to use the brand of materials selected by the Engineer incharge.
3. Bad workmanship is liable to be rejected in toto.
4. The contractor shall supply on completion of work, completed plan along with insulation, polarity and earth tests reports before the installation is handed over to the Engineer – incharge in good condition in triplicate. The tests should be carried out in the presence of Engineer – in – charge at Contractor's cost.
5. All repairs and patch work shall be neatly carried out to match the original finish and to the entire satisfaction of Engineer – In charge.
6. The contractor shall make his own arrangements at his own cost for all general and special T & P required on the job.
7. The contractor shall make his own arrangements for storage, of materials and watch and ward at his own cost, till the installation (completed work) is handed over to the Department after obtaining service connection from Electricity Board and testing the line. Any loss and tampering of materials for which the payment was made by the department will be made good by the Contractor at his own cost.
8. Issue of materials to the contractor wherever stipulated will be regulated to the needs from time to time depending upon the progress.
9. Materials stipulated for issue shall be taken over to the site of work and the safe custody till completion of the job is the responsibility of the contractor.

CONTRACTOR

No. of Corrections

Superintending Engineer

10. All the debris due to electrical works shall be removed from site by the Contractor as soon as the work is completed.
11. Electrical works shall be progressed by the Contractor side by side with the progress of the building work, burying of conduits for recessed portion shall be planned together with the building progress so that there is no hindrance to the building progress at any stage.
12. The internal E.I shall be ordinarily carried out according to the drawing supplied with the schedule of work subject to change made by the Engineer – in – charge.
13. The wiring route shall be marked at site first and get approval from the Engineer – in – charge before commencement of actual work. The work must be carried out as directed by Engineer – in – charge.
14. P.V.C.wiring shall be neatly painted with two coats of non cracking paint distemper suitable for painting P.V.C wire and of suitable colour to match the surroundings as per the direction of Engineer – in – charge.
15. In place where electrical conduit is required, to pass through wall RCC column / beam etc., the conduit shall be laid during the execution of work in consultation with the Engineer – in – charge So as to avoid the need for cutting the structure at a later date.
15. The teak wood materials such as fillets, specials, T.W. boxes and all materials shall be got approved from the Engineer – in - charge before use to ensure the quality of materials.
17. In the case of recessed conduit works, the M.S boxes shall also be recessed and covered with 1/8" (3mm) hylam / Bakelite sheet. The thickness of M.S.sheet shall not be less than 16 gauge thick.
18. Provision of fittings.
  - (a) All switch Boards shall be so placed that the bottom is normally 1.2 meter above floor level or such height as decided by the Engineer in-charge.
  - (b) All fittings shall be provided at 2.6 metre from the floor level or such height as decided by the Engineer in charge.
  - (c) The convenient 5/15 Amps plug socket shall be 23 cm above the floor level or such height as decided by the Engineer – in – charge.
  - (d) Wiring shall run normally at 2.6Metres above floor level or such height as decided by the Engineer in charge.

CONTRACTOR

No. of Corrections

Superintending Engineer

19. The materials issued if any by the department to the contractor, the cost will be recovered at the stores issue rate. If the contractor fails to return the surplus materials after completion of work, the cost will be recovered at double the stores issue rate or market rate whichever is higher.
20. Brass hinged brass hooks and eyes, single teak wood boards of 60mm minimum depth in case of open wiring and minimum depth of 200 mm in the case of concealed wiring and not less than 6.5 mm thickness shall be used on the works.
21. fixing of Wooden battens
  - (a) The screws shall be used for fixing the wooden battern and accessions at an interval not exceeding 50 cm. The thickness of patterns shall not be less than 10mm.
  - (b) The clips are provided on the wooden battern with screws / pins and spaced at an interval of 15 cm both in the case of horizontal and vertical run.
  - (c) Round block shall not be less than 75mm dia and 40 deep and fixed by means of 2 Nos screws.
22. (a). Pion type switches, sockets, outlets of approved make wherever needed shall be used for recessed boards after getting the approval of Engineer – in charge.
- (b). Only brass screws shall be used for fixing, fittings, switches, plug and sockets main boards and distribution boards and teak wood accessories etc., required for the wiring.
23. All conduct pipe shall be approved gauge (not less than 16 SWG, 14 SWG) solid drawn or lap welded, finished with galvanized stone enameled finish. The saddles used shall not be less than 24 gauge upto 55mm dia. Pipes and not less than 20 gauge for longer dia pipes.
24. The main earthing lead shall not be less than 8 SWG copper (4.06 mm) in case of copper wire earthing or 6 SWG G.I wire (4.93) in case of G.I wire earthing separate earthing shall be provided for all mountings of main boards, distribution boards, 5/15 amps. plug sockets with not less than 14 SWG of copper (2.03 mm)

CONTRACTOR

No. of Corrections

Superintending Engineer



25 Earthing shall conform to the relevant I S code, 3043 - 1966 the G I pipe earth electrode system is, adopted G 1 pipe shall be of medium class 38- 40 mm dia., 3.75 meters long. The electrode shall be buried in the ground vertically With its top not less than 20 cm. below ground level Normally an earth electrode shall provide 1.5 meters away from any building, In case of providing twin earthing the distance between the earth pits shall be 10 feet Alternate layers of charcoal or coke and salt of minimum 15,cm. thick are to be provided from the bottom of earth pit upto 1 meter below ground level and the masonry work, is to be carried out in brick with the cement mortar 1:4 above the last layer and the top is to be covered with suitable cast iron frame and cover.

26'. The staircase light point wiring must be done by looping or piece wire system and switch must control phase or live wire only.

Looping in system is to be adopted for wiring Normally the looping of neutral to light, fan, plug, points etc. should be restricted to 3 points for a single wire from the switch board

27. The wooden batten and specials shall not be butt jointed and joints should be lap jointed.

28. The wiring must be done using bend and corners wherever necessary. Sharp bending or cable must be avoided.

29. The lighting circuit shall not have more than 10 points or a load of 800 watts. whichever is less

30. Power wiring shall be kept separate and distinct from the lighting wiring.

31. The contractor should be present at the premises at the time of effecting service connection by the Electricity Board authority and afford all facility for testing and commissioning the installation.

32 The contractor should provide sufficient leads for connecting the main switches to meters and cut outs provided by the Electricity Board at his own cost.

33. The apartment main switches and the main switches at the Electricity Board service connection boards should be numbered in paint for easy identification and the danger boards should be provided wherever necessary according to I. E. Rules and Act regulations

34. Looping of neutral and connection wires in the switch boards must be carried out through mechanical connections and proper insulation shall be provided inside the switch wherever necessary to avoid short circuiting the system.

35 The scaffolding and the shed required for the electrical installation works should be put by the contractor at his own cost.

36. The Run off mains relates to the mains, run from the main switch inside the apartment to the mains switch provided for service connection by the Electricity Board authorities. The distribution box used shall be metallic enclosed type with fuse unit and natural link. The earthing for the main switches provided in the service connection Board should be properly interconnected and connected to the main earthing system.

CONTRACTOR.	No. of Corrections.	Superintending Engineer
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## LIST OF HOUSE HOLD ELECTRICAL APPLIANCES

**Circular No. / TC4 I 193 I 89 dt. 06-01-1989**

<b><u>Sl. No.</u></b>	<b><u>House hold Electric &amp; Electronics</u></b>	<b><u>Standard</u></b>
1.	Electric immersion water heater	IS: 368-1983
2.	Storage type automatic electric water heater	IS:2082-1985
3.	Switches for domestic & similar purposes	IS I 3854-196V
4.	Rubber insulated cables (with copper conductor (voltage Upto 1 I 1 KKV.)	IS: 9968 (Part I) 1981
5.	Rubber insulated cables (with aluminum conductor Upto 1 : 1 K.V)	IS: 9968 (Part 11) 1981 (Voltage
6.	PVC insulated cables (for voltage upto upth 11 OOV)	IS: 694.1977
7.	PoJythylene insulated and PVC sheathed cables upto and including 1100 Voltage	IS : 1996-1997
8.	Electrical Irons	IS 1336.1985
9.	Electric Stoves	IS: 2994-1965
10.	Electric Hot plates	IS:1365-1983
11.	Domestic Electric food mixers (Liquidizers Blenders & Grinders)	IS : 4250-1980
12.	Electric Toasters	IS : 1287 -1965
13.	Electric Coffee percolaters (Non regulator type)	IS: 3514.1966
14.	Pomeatic Electric Cloths washing machines (Non. regulator type)	IS : 6390-1983
15.	Ele. Kettles and jugs for house and similar type	IS : 367-1983
16.	Electric Radiators	IS : 369-1983
17.	Electric Water boilers	IS : 3412-1985
18.	MAIN-operated electric shavers	IS : 71541973
19.	MAIN operated electric shavers	IS : 5152-1969
20.	Domestic electric cooking ovens	IS: 5790-1985
21.	Steam Irons	IS : 6290-1971
22.	Electric. Electronic hearing gads domestic use	IS: 5161-1969
23.	Portable hand-held mains operated electric massagers	IS: 7137-1973

(Contd. PTO)

**Contractor**

**No. of Corrections**

**Superintending Engineer.**

<b><u>Sl. No.</u></b>	<b><u>House hold Electric &amp; Electronics</u></b>	<b><u>Standard</u></b>
24.	Portable low speed food grinding machine	IS : 7603.1975
25.	Appliance connectors and appliance Inlets (Non-revertable three pin type) appliance	IS : 3010 (part-1 )1965
26.	Appliance connector and appliance inlets (Non reversible three pin type) appliance inlets	IS : 3010 (Part-II) 1965
27.	Thermostats for use with electric water heater	IS : 3017-1985
28.	Cartidge type heating elements water heater (Non embedded type)	IS : 3724-1966
29.	Resistances wire. tapes and strips for heating elements	IS : 3725.1966
30.	Solid embedded type electric heating elements	IS : 4158 -1985
31.	Mineral filled sheathed heating elements	IS : 4159.1983
32.	Thermostats for general electric ovens	IS : 4165-1967
33.	MICA insulated heating elements	IS : 6446 1972
34.	2 Amps switches for domestic and similar purposes	IS : 4949-1968
35.	Electric portable lamp stands and brackets	IS : 3481-1966
36.	Three pin plugs & sockets-outlets (First revision)	IS 1293-1967
37.	Three pin plugs made of resilents materials	IS: 6538-1971
38.	Bayonet Lamp Holders	IS:: 1258-1979
39.	Electric Instantaneous water heaters	IS : 8978-1985
40.	Single walled baking oven	IS I 8925-

**Contractor****No. of Corrections****Superintending Engineer.**

**ADDITIONAL SPECIFICATIONS FOR QUALITY OF MATERIALS AND TESTS TO  
BE CONDUCTED**

S.No.	Material to be tested	Sampling	Name of test	Permissible limits	Standards.
1.	Water	Local Source: Lab Test once in 3 month.	Total Alkalinity	250 mg/I	IS 456-1978
		Out Source: Lab Test once in a month	Total Dissolved Solids	3000 mg/I	IS 456-1978
		Lorry Load: Field Test – Litmus paper test for every load	Sulphates (SO <sub>4</sub> )	400mg/I	IS 456-2000 Clause 5.4
			Chlorides (Cl)	2000 mg/I for concrete not containing embedded steel and 500 mg /I for reinforced concrete work	IS 456-2000 Clause 5.4
			Suspended Matter	2000 mg/I	IS 456-2000 Clause 5.4
			pH Value	Not less than 6	IS 456-2000
2.	Cement (43 Grade)	One test for every 300 Ton of Single Brand – test to be done if there is change in Brand.	Initial Setting time	Not less than 30 minutes.	IS 8112-1976
			Final setting time	Not more than 600 minutes	IS 8112-1976
			Fineness of Cement	2250 sq.cm/gm	IS 8112-1976
			Soundness of Cement	Expansion not more than 10mm	IS 8112-1976
			Compressive strength of CM 1:3 cube		IS 8112-1976
			3 days (72+/- 1 hr)	Not less than 230 kg / cm <sup>2</sup>	
			7 days (168+/-2 hr)	Not less than 330 kg / cm <sup>2</sup>	
			28 days (672 + /-4 hr)	Not less than 430 kg/cm <sup>2</sup>	
3.	Steel (Deformed Bars (fe.415))	Every load and each diameter	Tensile Strength	15% more than the measured yield stress	IS 1786-1985.
			Minimum yield stress	42.5 / kg / Sq.mm	IS 1786-1985
			Minimum percentage elongation	14.5	IS 1786-1985
4.	Sand	Every Load	Clay, fine silt	Not more than	IS 2116-

			and the dust	5% of mass	1980
5.	Coarse Aggregate	Every Quarry	Crushing value of Alternatively	Not more than 45%	IS 383-1970
			Impact Value	Not more than 50%	IS 383-1970
6.	Bricks	Lot Size – more than 1 Lakh bricks – number of Samples 20 Nos	Compressive Strength.		IS 1077-1986
			For Class 35	Not less than 35 Kg / cm <sup>2</sup>	
			For Class 50	Not less than 50 Kg / cm <sup>2</sup>	
			Water absorption	The average water absorption of bricks shall not be more than 20% of weight	IS 1077-1986
			Efflorescence	the rating of efflorescence shall not be more than moderate	IS 1077-1986

S.No .	Material to be tested	Sampling	Name of test	Permissible limits	Standards .
7.	Hydraulic Pressed tiles	One test for an area upto 1999 Sq.m and one additional test for every 1000 sq.m and part thereof.	Water absorption	Shall not exceed 15%	Part I of IS 2690 – 1993.
			Flextural strength	Shall not be less than 15 Kg / Cm <sup>2</sup>	IS 2690-1993
8.	Mosaic Tiles	One test for an area upto 1999 sq.m and one additional test for every 1000 sq.m and part thereof.	Water absorption	Shall not be exceed 10%	IS 1237 – 1980.
			Transverse strength	Shall not be less than 30 Kg/cm <sup>2</sup>	IS 1237 – 1980
			Wear: Ave: Wear	Shall not be more than 3.5mm	IS 1237-1980
			Wear on individual Specimen	Shall not be more than 4mm	IS 1237-1980
9.	Electric Cable	One test for each brand	Conductor Resistance at 20°C		IS 664-1990
			For 1.5sq.mm cable For 2.5sq.mm cable For 4.0sq.mm	max.allowable limit 12.10ohm/km max.allowable limit 7.40ohm/km max.allowable limit	

			cable	4.95ohm/km	
10.	Wood	One sample for each work	Lab Test – Moisture Test	Not more than 12%	
			Field Test – Visual Observation	Free from rotten, unsound Knots (or) Knots incluster	IS 3629/1966
11.	Cube test in Lab		Compressive Strength		IS 456 – 2000
		1m <sup>3</sup> to 5 m <sup>3</sup> – 1 Set	M 15 (1:2:4)		
		6m <sup>3</sup> to 15 m <sup>3</sup> – 2 Sets	28 days	not less than 150 kg / cm <sup>2</sup>	
		16m <sup>3</sup> to 30 m <sup>3</sup> – 3 Sets	7 days	not less than 100 kg / cm <sup>2</sup>	
		31m <sup>3</sup> to 50 m <sup>3</sup> – 4 Sets			
		> 50 m <sup>3</sup> – 4 plus one for each addl.50 m <sup>3</sup>	M 20 (1:1.5:3)		
			28 days	not less than 200 kg / cm <sup>2</sup>	
			7 days	not less than 135 kg / cm <sup>2</sup>	
12.		Type work	With Vibration	Without Vibration	
	Slump Test at site (Slump in cm)	Mass concrete, large section, roads and pavements	1.0 to 2.5	5.0 to 7.5	
		RCC foundation, substructures, thick walls & other heavy sections	2.6 to 5.0	4.0 to 11.5	
		Thin vertical sections Such as walls, beams, columns with congested reinforcement	4.0 to 5.0	10.0 to 17.5	
		When using concrete pump	8.0 to 10.0		

CONTRACTOR

No. of Corrections

Superintending Engineer.

## **TAMILNADU HOUSING BOARD**

### **7. TYPES OF EARTH ELECTRODES:**

#### **7.1. Rod and pipe Electrodes (Fig.4)**

- 7.1.1** These electrodes shall be made off metal rod or pipe having a clean surface not covered by paint enamel or poorly conducting materials.
- 7.1.2** Rod Electrodes of steel or galvanized iron shall be at least 16mm in diameter and those of copper shall be at least 12.5mm in diameter.
- 7.1.3** Pipe electrodes shall not be smaller than 30mm internal diameter if made of galvanized Iron or steel and 100mm internal diameter if made of cast iron.
- 7.1.4** Electrodes shall, as far as practicable be embedded below permanent moisture level.
- 7.1.5** The length of rod and pipe electrodes shall not be less than 2.5m.
- 7.1.6** Except where rock is encountered rod pipes and rods shall be driven to a depth of at least 2.5m where rock is encountered at a depth of less than 2.5m the electrodes may be buried inclined to the vertical. In this case too the electrodes shall be at least 2.5m and inclination not more than 3.0m from the vertical.
- 7.1.7** Deeply driven pipes and rods are, however, effective where the soil resistivity decreases with depth or where substratum of low resistivity occurs at depth greater than those to which rods and pipes are normally driven.
- 7.1.8** Pipes or rods, as far as possible, shall be of one piece.
- 7.1.9.** For deeply driven rods, joints between sections shall be made by means of a screwed coupling which should not be of greater diameter than that of the rods which it connects together.
- 7.1.10.** To reduce depth of burial of an electrode without increasing the resistance, a number of rods or pipe shall be connected together in parallel. The resistance in this case is practically proportional to the reciprocal of the number of electrodes used so long as each is situated outside the resistance area of the other (See fig.5). The distances between two electrodes in such a case shall be not less than twice the length of the electrodes.
- 7.1.11** If necessary rod electrodes shall have a galvanized iron water pipe buried in the ground adjacent and parallel to electrode itself. It's one end shall be at least 5cm above the surface of the ground and need not be more than 10cm. The diameter of the pipe shall be between 5cm and 10cm. The difference between the lengths of the electrode and that of the pipe if under the earth's surface not be more than 30cm and in no case shall the length of the pipe exceed that of the electrode.

Contractor

No. of Corrections

Superintending Engineer

## TAMILNADU HOUSING BOARD

### CONDITIONS FOR TRAINING OF APPRENTICES AS PER APPRENTICES ACT

The contractor shall comply with the provision of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so his failure will be a breach of contract and the competent authority may at his discretion cancel the contractor or invoke any of the parties of breach of contract provided in the agreement. The contractor shall also be liable for any precautionary liability arising of account of any violation by his of the provision of the Act.

2) Contractor shall during the currency of the contract ensure engagement of the Apprentices in the categories mentioned below who may be assigned to him by Director of Employment and Training State Apprenticeship Adviser, Tamilnadu. The Contractor shall train time as required under the Apprentices Act 1961 ad the rules made there under and shall be responsible for all obligations of the employer under the said item including the liability to take payment to the apprentices as required under the said Act.

Value of Contract	Category	To be appointed
1. Above Rs.1.00 lakhs to Rs.3.00 lakhs	1. Building contractor	1
	2. Brick layer	2
2. Above Rs.3.00 lakhs to Rs.10.00 lakhs	1. Building contractor	1
	2. Brick layer	1
	3. Diploma holder in Civil	1
3. Above Rs.10.00 lakhs	1. Building contractor	1
	2. Brick layer	1
	3. Engineering Degree holder in Civil	1

3) Unless the contractor has been exempted from the engagement of Apprentices by the Director of employment of training/State Apprenticeship Advisor, a certificate to the effect that the contractor has discharged his obligation under the said Act satisfactory should be obtained from the director of Employment and Training/State Apprenticeship Adviser and the same should be provided by the Contractor, final payment in the settlement of the contract.

(Authority: G.O.M.s.No.866/Transport Department dated 12.8.70)

Contractor

No. of Corrections

Superintending Engineer



## **SPECIAL CONDITIONS FOR SENDING THE CEMENT CONCRETE CUBES FOR TESTING**

The contractor should make arrangements for getting mould to the site for casting of cubes for testing of concrete strength.

1. Mould: The concrete mould' should be as per IS Specification (IS-516-1959) the details of which are as follows:

The mould shall be of metal, preferably steel or cast iron, and stout enough to prevent distortion. It shall be constructed in such a manner as to facilitate the removal of the moulded specimen without damage and shall be so machined that when it is assembled ready for use, the dimensions and internal faces shall be accurate within following limits.

The height of the mould and the distance between opposite faces shall be the specified size + 0.2mm. The angle between adjacent internal faces and top and bottom planes of the mould shall be 90. + 0.50. The interior faces of the mould shall be plane surface with a permissible variation of 0.03 mm. Each mould shall be provided with a metal base plate having a plane surface and to support the mould during the filling without leakage and it shall be preferably attached to the mould by springs for screws.

The interior surfaces of the mould shall be thinly coated with mould oil to prevent adhesion of the concrete.

2. Compacting: The concrete shall be filled into the mould in layers approximately 5 cm. deep. each layer shall be compacted either by hand or by vibration as described below(as per ISI).  
When compacting by hand, the standard tamping bar shall be used and the stokes of the bar shall be distributed in uniform manner over the cross section of the mould as prescribed in I.S.I. and for cubical specimen in no case, shall be concrete be subjected to less than 35 strokes per layer for 15 cm cubes (as per I.S.I.).

Contractor

No. of Corrections

Superintending Engineer

When compacting by Vibration each layer shall be vibrated by means of an electric or pneumatic hammer or vibrator (as Per I.S.I).

3. The concrete cubes shall be cured for 28 days and send on 29<sup>th</sup> day. if the day falls on a holiday the cubes shall be sent on the next working day.
4. All the charges connected with the cube testing etc. shall be borne by the contractor.
5. If the concrete cube is found to be of lesser strength then reduction in agreement rates shall be adopted as per the powers delegated to Executive Engineers.
6. For working out the reduction of rates the following procedures will be adopted.

When the strength of cubes tested is between 75% and 100% of the specified strength the agreement rates should be reduced proportionately to the allowable strength of concrete .

7. When the strength of cube tested falls below 75% of the allowable strength, the R.C. Component from where the cube samples are collected shall be rejected. However as an additional check, non-destructive test will be conducted through recognized institutions like Anna University etc., whether the concrete component can be rejected or reduced rate to be adopted will then be decided. However for working out the reduced rate, the cubes strength value only should be taken and worked out as given in par (6) above.

CONTRACTOR      NO.OF CORRECTIONS      SUPERINTENDING ENGINEER

**TAMIL NADU HOUSING BOARD**  
TECHNICALLY QUALIFIED MEN SHOULD BE EMPLOYED AS FOLLOWS:-

Sl.No.	Value of contract	Qualification and No. of Technical Assistants to be employed
1.	2.	3.
1.	Up to Rs.1 lakh	No technical Assistants need to be employed, However, if the Officer who accepts the agreement feels that the nature of work requires a Technical Assistants, conditions may be stipulated in the tender notice that diploma holder in civil engineering or a retired Junior engineer may be employed.
2.	Upto 1 Lakh to Rs.3/- lakhs	One Diploma holder in Civil Engineering or not less than one retired Junior Engineer.
3.	Rs.3/- lakhs to Rs.10/- lakhs	One B.E. (Civil) or equivalent degree holder or not less than one retired sub-divisional officer (Assistant executive Engineer or Assistant divisional Engineer).
4.	Rs.10 lakhs to	One B.E. (Civil) or equivalent degree holder with three years experience in Civil Engineering works or not less than one retired sub divisional officer plus one diploma holder in Civil Engineer.
5.	Rs.25/- lakhs to Rs.50 lakhs	One B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired sub-divisional officer (Retired Assistant Executive Engineer plus two Diploma holder in Civil or two retired Junior Engineers)
		<u>ALTERNATIVE:</u> One B.E. (Civil) or equivalent degree holder with three years experience or not less than one retired sub-divisional officer and one more B.E. (Civil) or equivalent degree holder).
6.	1) Above Rs.50/- lakhs	To be examined in individual class depending on the nature of work and the technical skill involved and defined in the Tender Notice regarding the number of qualified technical personnel to be employed by the contractor.
	2).	Penalty of Rs.500/- p.m. for Diploma holder and rs.1000/- p.m. for degree holder be levied in case of default on the part of contractors in following the norms laid down above.

Contractor

No. of Corrections

Superintending Engineer

1	2	3
	3)	The employment of Technical Assistant could be based only on the value of contracts. Engineer with Mechanical Engineering qualification and retired from Civil engg. Department are also suitable to supervise the Civil Engineering work because of their experience in Civil engineering field.
	NOTE	In case the contractor who is professionally qualified is not in a position to remain always at the site of the work during working hours personally checking all items of work and paying extra attention to such works as may demand special attention (e.g) R.C. work etc., he should employ technically qualified men (as prescribed for the work).
I am / we are professionally qualified and my / our qualification are given below:		
NAME		QUALIFICATION
I / we will employ the following technical staff for supervising the work and will see that one of them is always at site during working hours personally checking all items of work and paying extra attention to words as required special attention (e.g.) reinforce concrete work.		
Name of members of technical staff proposed to be employed		QUALIFICATIONS

In deciding the period of absence, the certificate from the Assistant Engineer in charge of the work counter signed by the Executive Engineer in charge shall be taken as the conclusive evidence and I / we shall be bound by such a certificate.

Contractor

No. of Corrections

Superintending Engineer.

**TAMIL NADU HOUSING BOARD : SALEM CIRCLE @ COIMBATORE****TENDER NOTICE NO: 03 /2021-2022****Dated: 30.03.2022**

Sealed tenders with name of work, reference No., due date and the name of tenderer duly superscribed on the cover (under Pre-qualification system) are invited for the following works, so as to reach the Office of the Superintending Engineer , Salem Circle, Cowly Brown Road, R.S.Puram, Coimbatore-2 upto 11.00 A.M, (as per office Clock) on the date mentioned below. The tenders will be opened the undersigned at his office at 11.15 A.M on the same day in the presence of the tenderer or their agent who choose to be present.

Sl.No.	Description of Work	Approximate value (Rs. In lakhs)	EMD in Rupees	Cost of Tender Schedule in Rs. (Non-refundable)	Period during which the tender schedule for sale at 1.00 P.M	Last date of receipt and opening of tender at 11.00 A.M & 11.15 A.M
1	2	3	4	5	6	7
1	Engaging Essential Services to 1848 MSB TNGRHS Flats under Annual Maintenance works at kavundampalayam, Coimbatore for the year 2022-2023 (June 2022 - Mar 2023)SC/SPD III/ 913 /2019	Rs.184.37 Lakhs	Rs. 1,02,200/-	15,000/- + 5% GST	Upto 19.04.2022	20.04.2022
2	Area Development Scheme for 83 Nos. of Plots (HIG-16,MIG-21,MIG I-45 & Shop-1) in S.F.No.210/1 Pt, 3Pt.,211/1 & 211/2 B etc., of Future development Plots Two Pockets (Zone I & II) in Attur Phase - IV Scheme , Salem District	Rs.207.51 Lakhs	Rs.1,14,000/-	15,000/- + 5% GST	04.05.2022	05.05.2022

**CONDITIONS FOR ISSUE OF TENDER SCHEDULES:**

- 1 The contractors registered (the registration certificate should be reclassified and renewed upto date) under class-I in TNHB, P.W.D., T.N.P.H.C., T.N.S.C.B. and other Govt. / Quasi Govt. Departments with appropriate monetary limit are eligible to participate in the tender.
- 2 The tenderer should have executed works of similar nature ( Maintenance works of 10 to 14 floors for Sl.No.01 and Area Development Scheme for Sl.No.02 ) costing more than 50% of the value of the work put to tender in a single tender within the last 5 years period. Further particulars and tender documents can be had from the office of the Superintending Engineer, Salem Circle, Cowly Brown Road, R.S. Puram, Coimbatore-2 on requisition in writing on payment of the prescribed cost in the form of Demand Draft in favour of the Exe. Engr. ,Special Project Division III for Sl.No 01 and Exe. Engr. & Adm.Officer, Salem Housing Unit for serial no. 2 on all working days between 11.00 A.M. to 1.00 P.M. on the date mentioned in the column No.6 of the tabulation.

NOTE:

- 1 The undersigned reserves the right to reject any or all the tenders without assigning any reasons therefor.
- 2 The tender documents will be issued only after verifying credential produced by the intending tenderer regarding their registration, previous performance, nature and value of the work done etc.
- 3 The tender schedule can also be down loaded from the Web site [www.tenders.tn.gov.in](http://www.tenders.tn.gov.in) at free of cost.

Cowly Brown Road  
R.S.Puram,  
Coimbatore-2 Phone: 0422-2456606

Sd./- K.T.Santhi,  
Superintending Engineer,  
Salem Circle, Coimbatore.

**To**

1. All the Registered Contractors Class I
2. Tender Notice displayed in the Notice board.

**Copy to:**

1. All EE's of Tamil Nadu Housing Board.
2. Cashier, TNHB
3. The D.C.A.O / TNHB, Koyambedu, Chennai.107.
4. The Exe.Engineer / T.Cell, TNHB, .

Copy submitted:

1. The Chairman / TNHB
2. The Managing Director/TNHB
3. Chief Engineer / TNHB
4. The S.E/H.Q, TNHB , Koyambedu, Chennai.107.

// Forwarded by Order //

Junior Draughting Officer