

NAME OF WORK : CONSTRUCTION OF COMMUNITY HALL TO ADW COLONY AT VASUDEVANPATTU, CHENGAM BLOCK IN THIRUVANNAMALAI DISTRICT.

PART – I Work Value

TOTAL VALUE OF WORK PUT TO TENDER: Rs.41,69,319/- (RUPEES FORTY ONE LAKH SIXTY NINE THOUSAND THREE HUNDRED AND NINTEEN ONLY)

(Item wise quantity, Rate, Amount and Total as prescribed in detail in Schedule 'A")

(I) I/We.....Offer to execute the above work

with tender percentage (%) of Plus(+).....%

(in words) / Minus(-).....%.....%

in words) for the value of work above as mentioned over the Departmental estimate value of work indicated in Schedule 'A.' In case of variation in quantity of various items of work during execution, I/We agree that the amount payable for individual items of work be as per the departmental unit rates indicated in the tender schedule for the items as varied in accordance with the tender percentage and total quantity of work done.

PART -II GST

Departmental GST % over the departmental value of work - 12% Tenderer GST % over the quoted value of work%% (in words)

Name and address of the Tenderer.

Signature of Tenderer.

Note:

The Tenderer should furnish the 'copy of Goods and Service tax (GST) Registration No.

TAHDCO PARTICULARS TO BE FURNISHED BY TENDERER

1.	Name of Tenderer and address	:
2.	Name of work	:
3.	Date of tender	:
4.	Total value of tender	:
5.	Details about Earnest Money Deposit enclosed for this tender and its validity	:
6.	Registered Class of the tenderer with monetary limit and department in which registered (Certified copy of the live-registration order should be attached)	:
7.	Recent works executed (details about name and place of work, value of works etc., should be attached)	:
8.	Works under execution (details about name and place of work, value of works, etc., should be furnished.)	:
9.	Command of labour in brief	:
10.	Turnover of previous years (Particulars for a period of five consecutive years are to be furnished)	:
11.	Whether Income - tax clearance Certificate is enclosed. If not when it will be	:

produced?

12.	 i) GST Registration Number ii) Whether GST Clearence Certificate is enclosed? If not, when it will be produced. 	:
13.	In case of registered Co- Operative Societies, they should furnish name of the nominee with their credential details at the time of tender itself. They should also certify that, the nominee of the Society is not a registered contractor in the department.	:
14.	TECHNICAL ASSISTANT DETAILS	:
I	Name	:
	Qualification	:
	Experience Certificate	:
П	Name	:
	Qualification	:
	Experience Certificate	:
	OR	
I	Name In the case of retired Civil Engineer, Designation and date of retirement (Copy to be enclosed.)	:
П	Designation	:
Ш	Date of retirement	:
15.	Any other details	:

Note : The consent letter from the Technical Assistant proposed to be employed should be obtained and enclosed it with the tender.

ADDITIONAL TENDER CONDITIONS :

- (a) The Tenderer should furnish the Copy of Goods and Services Tax (GST) Registration No.
- (b) As per Notification No: 31/2017 Central Tax(Rate), dated 13th October, 2017 the concessional rate of the Goods and Services Tax(GST) at 12%[CGST at 6%+ SGST at 6%] is leviable for any Government contract, Whether Civil or Electrical, irrespective of the Goods and Service Tax (GST) rate applicable on purchase of goods used in the execution of Government Contract. The GST amount will be calculated at 12% from the sum of total tendered value quoted by the tenderer for construction cost (excluding GST) specified in the BOQ, Subject to GST rate applicable from time to time as recommended by the GST Council.
- (c) As per Notification 202, dated 29.06.2017 and as per sub-section (2) of section 7 of the Tamilnadu Goods and Services Act, 2017,(Tamil Nadu Act 19 of 2017), activities or transactions undertaken by state Government shall be treated neither as supply of goods nor a supply of service.
- (d) As per PWD SOR 2021-2022 dated 17.06.2019, under General Note 8 (ix), The contractor is eligible to get refund of excess tax paid over or liable to pay tax as per notification No.20/2017, Central Tax(Rate) dated 22.08.2017, Notification No.24/2017, Central Tax(Rate) dated 21.09.2017 and Notification No.31/2017, Central Tax(Rate) dated 13.10.2017

Office of the Managing Director, TAHDCO, Chennai - 18.

Name of Work	:	CONSTRUCTION OF COMMUNITY HALL TO ADW COLONY AT VASUDEVANPATTU, CHENGAM BLOCK IN THIRUVANNAMALAI DISTRICT.
Last date for receipt of tender	:	12.07.2022 up to 3.00 PM
Date and time of opening	:	13.07.2022 at 11.00 AM
Earnest Money Deposit to be remitted	:	Rs.33,500/-
Mode of Earnest Money	:	In the shape of Demand Draft Irrevocable bank Deposit to be remitted guarantee of the Nationalized / Scheduled banks drawn in the name of Executive Engineer, TAHDCO, Vellore and National savings Script / Deposit Account of Postal Department pledged in favour of the Executive Engineer, TAHDCO, Vellore, are acceptable.

Note:

- 1. The Tender and Earnest Money Deposit, should be enclosed in separate covers, both the covers should then be submitted in the common sealed cover. All the three covers should be sealed. Tenders not submitted in sealed cover will be summarily rejected.
- 2. The percentage should be furnished by the tenderer without fail in appropriate columns. Corrections scribbling, overwriting, and erasing (Should be avoided as far as possible) should be attested by the contractor.
- 3. The amount of EMD is fixed as below

upto 20.00 Lakh (1%) = 20,0000 > 20.00 Lakh = (20,000 + 0.5% for the value of works more than 20 Lakh)

4. The amount of EMD is fixed for the contract value put to tender including the GST amount.

FOR SPECIAL ATTENTION OF THE TENDERER

- 1. Proof of registration in TAHDCO as a contractor shall be attached with the tender.
- 2. SARAL form shall be enclosed with the tender or the tender in which the SARAL form for the current year was submitted to this office should be specified.
- 3. TIN Registration Number should be furnished and Sales Tax clearance certificate should also be produced before finalization of contract.
- 4. Earnest Money Deposit will be accepted in the shape of Demand Draft irrevocable Bank guarantee of the Nationalized and Scheduled Banks drawn in the name of Executive Engineer, TAHDCO, Vellore and National savings script / Deposit Accounts of Postal Department pledged in favour of the Executive Engineer, TAHDCO, Vellore are acceptable.
- 5. The successful tenderer should convert the Earnest Money Deposit, already deposited in the form of Demand Draft and additional security deposit if any required for the fulfillment of contract into National Savings Certificates / Deposit Accounts pledged in favour of the Executive Engineer, TAHDCO, Vellore.
- 6. The lowest tenderer, when informed that his tender is under consideration, shall have to furnish PERT CHART in the proper form within a week from the date of receipt of letter calling of PERT CHART: The PERT CHART should conform to the departmental time schedule for the completion of work furnished in the tender notice. If the PERT CHART is not received within a week from the date of communication, his tender will not be considered.
- 7. The tender documents will be issued only to the contractors registered in the TAHDCO in the appropriate class.
- 8. The Applicant should produce income Tax Clearance Certificate valid for the current period, copy of Goods and services Tax (GST) Registration No.
- 9. In the case if the tenderer quotes rates at 5% to 15% less than the department value, should enclose the additional security deposit at 2% extra on the department value including GST in the form of Demand draft only and should be enclosed in the schedule itself. Otherwise the tenders will not be accepted and considered as summarily rejected.
- 10. Similarly, in the case if the tenderer quotes rates at minus 15% and above than the department value, should enclose the additional security deposit at 50% of the difference in value on the department value including GST and the quoted value including GST, in the form of Demand draft only and should be enclosed in the schedule itself. Otherwise the tenders will not be accepted and considered as summarily rejected.
- 11. One registered contractor cannot participate in not more than two works prescribed in the tender notice. Suppose if the contractor is participating in more than two works, criteria such as previous experience in works, work performance, financial performance will be considered for evaluation of tenders.
- **12.** The Registered contractors of the concerned division should participate in the concerned division works only.

SPECIAL INSTRUCTIONS TO THE TENDERER

- 1. The tender should be submitted along with a covering letter giving full details as called for in the tender notice together with the copy of letter registering them into the appropriate class.
- 2. In case the tenderers who are eligible for concessional Earnest Money Deposit, they should furnish the reference number and date in which the concession was granted to them. A copy of the aforesaid reference may be enclosed along with the tender for ready reference.
- 3. The following particulars shall also be furnished by the contractor along with the tender.
 - a) List of details of works executed by the contractor with their value. (Year wise)
 - b) A list of details of works under execution by the contractor with their value.
 - c) Annual turnover of the last one year (necessary certificate to the effect, issued by the respective bank, shall be attached)
- 4. List of various machineries and other equipments at the tenderer's disposal for use in execution of the work, should be furnished.
- 5. The tender form should be filled in while submitting the tender. The tender submitted without filling up the tender form is liable to be rejected.
- 6. The tender must be submitted in the sealed foolscap cover duly signed by the contractor in all pages.
- 7. Tender with tempered seals will not be accepted.

APPENDIX – I TENDER NOTICE

(for L.S. Contract) (As amended in G.O. Ms. No.618/P.W/ dated 30th April, 1985)

On behalf of the Managing Director, TAHDCO, Chennai, tenders will be received by the **Executive Engineer, TAHDCO, Vellore** on **12.07.2022** up to **3.00** p.m. for the work of **: CONSTRUCTION OF COMMUNITY HALL TO ADW COLONY AT VASUDEVANPATTU, CHENGAM BLOCK IN THIRUVANNAMALAI DISTRICT.** The tender should be in the prescribed form obtained from the office of the **Executive Engineer, TAHDCO, Vellore**, or downloaded from the web site. Tenders will be opened by the Tender Committee, **TAHDCO, Head Office, Chennai** on **13.07.2022** at **11.00 AM** on the same day at the place aforementioned.

The tenderers or their Agents are expected to be present at the time of opening of tenders. The tender receiving officer, on opening each tender will prepare a statement of the attested and unattested corrections there in and hand it over to the tenderer concerned and initial all such corrections in the presence of the tenderers. If any of tenderer or their agents finds it inconvenient to be present at the time, then in such a 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 the corrections without any question whatsoever.

1. Tenders must be submitted in sealed covers and should be addressed to the **General Manager (Tech), TAHDCO, Chennai**, 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 firm, it shall be signed with the co-partnership name by a member of the firm shall be given. If the tender is made by a Corporation, it shall be signed by a duly authorized officer who shall produce with his tender, satisfactory evidence of his authorization. Such tendering corporation may be required, to furnish evidence of it's corporate existence, before the contract is executed.

2. i. Each tenderer must also send a certificate of income - tax verification from the appropriate income - tax authority in the form prescribed therefore. The certificate will be valid for one year from the date of issue, of all tenderers submitted during the year.

ii. If the tenderer is a registered TAHDCO. Contractor and if a certificate for the current year had already been produced by him during the calendar 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.

iii. All tenders received without a certificate as afore-mentioned will be summarily rejected.
 iv. In the case of proprietary or partnership firm, it will be necessary to produce the certificate afore-mentioned for the proprietor or proprietors and for each of the partners as the case may be.

3. i. Each tenderer must pay, as Earnest Money Deposit, a sum of **Rs.33,500/- (Rupees Thirty Three Thousand and Five hundred only)** either in the form of NSC pledged in favour of the Executive Engineer, TAHDCO, Vellore (or) Demand Draft. This Earnest Money Deposit will be refunded to the unsuccessful tenderer on application after intimation is sent of rejection of the tender or at the expiration of three months from the date of tender whichever is earlier. The refund will be authorized by the **Executive Engineer, TAHDCO, Vellore Division**. The Earnest Money Deposit will not be received in cash or currency notes by the TAHDCO.

ii. The Earnest Money Deposit will not carry any interest. It will be dealt with as provided in the tender.

iii. The acceptance of Earnest Money Deposit in various approved forms duly pledged in favour of the Executive Engineer, TAHDCO, Vellore is subject to the specific condition that the successful tenderer should pay the Security Deposit including Earnest Money Deposit in the form of small savings script / deposit account in lieu of other mode of payment for Earnest Money Deposit before acceptance of the tender.

4. (i.) The tender will remain valid for a period of three calendar months from the last date for receipt of tender. The validity period can be extended further, if the contractor gives his consent in writing, specifying the period of extension.

(ii.) "The lowest tenders will be identified who quotes lowest total tender price which including GST. Negotiation of rates will be made only with the lowest tenderer for reducing the quoted rates and the negotiation will be made for the rates quoted to the items in the construction part alone and not for GST amount."

"After negotiation with lowest tenderer, the GST amount will be recalculated at 12% of the sum of the Negotiation tender value (excluding GST) for construction Cost specified in the BOQ, subject to GST rate applicable from time to time as recommended by the GST Council.

The tenderer whose tender is under consideration shall attend the TAHDCO Head Office before the end of the period specified by written intimation to him. In case the tenderer fails to attend the office before the end of the specified period, his tender will not be considered. He shall forthwith, upon intimation being given to him of acceptance of his tender by the officer duly authorized in this behalf under Article 299 (i) of the Constitution, herein after called " the accepting authority" make security deposit of 2 percent of the value of contract in one of the forms us prescribed above by taking into account of the amount of Earnest Money Deposit, already deposited with the tender, it would be sufficient to pay the balance amount to make up to the 2 percent of the value of contract, for the purpose of security deposit. However the security deposit together with earnest money deposit and amount with held according to clause 64.1 of General conditions to the contract, shall be retained as security for due fulfillment of contract. If a cash security deposit is made by the contractor, he shall follow the procedure laid down in the preceding paragraph for payment of earnest money deposit and such deposit shall not bear any interest.

iii. The successful tenderer will remit an Additional Security deposit of 2 % of the value of contract including GST amount deducting EMD amount already deposited one of the forms prescribed above, if called for by the tender finalizing authority.

iv. On evaluation of tender if it found that the overall quoted amount of the tender is less than 5% to 15% of the value put to tender, contractor shall pay an additional security amount at 2% of the estimated value. If the tender discount exceeds 15% to 20% the contractor shall pay an additional deposit of 50% of difference between the quoted amount and estimated amount. Failure to furnish the additional security deposit within 15 days from the date of receipt of acceptance order and execute the agreement shall entitle cancellation of award of contract and forfeiture of EMD furnished.

v. On receipt of written communication of acceptance of tender, if the tenderer fails to pay the requisite security deposit within the period specified in the written communication or backs out from the tender or withdraws his tender, the earnest money deposit shall be forfeited. If the contractor fails to carryout the contract, after paying the requisite deposits, then he will be

liable for the excess expenditure if any incurred to complete the work as contemplated in the General conditions of contract.

vi. It shall be expressly understood by the tenderer, that on receipt of written communication of acceptance of tender by the tenderer there emerges a valid contract between on behalf of the Managing Director and the tenderer for execution of the work without any separate written agreement. For this purpose, the tender documents, i.e., tender notice, tender offered by the contractor, General condition to the contract, special conditions to the contract, correspondences, written communication of acceptance of tender, etc., shall constitute a valid contract and that will be the foundation of the rights of both the parties of the contract Provided that, it shall be open to the accepting authority to insist execution of any written agreement by the tenderer, if administratively considered necessary or expedient.

5. i. The tenderer shall examine clearly the Tamil Nadu Building Practice and also the general conditions to contract contained therein and sign the office copy of the Tamil Nadu Building Practice and its addenda volume in token of such study before submitting his tender percentage, which shall be for finished work in situ. He shall also carefully study the drawings and additional specifications and all the documents connected with the contract. The Tamil Nadu Building Practice and other connected documents with the contract, such as specifications, plans, descriptive specification sheet regarding materials, etc., can be seen at any time between 11.00 a.m. and 5.00 p.m. on office days in the office of the **Executive Engineer, TAHDCO, Vellore**

ii. A copy of the set of contract documents can also be had on payment of **Rs.9,000 + 1080** (10,080)/- for each set inclusive of GST.

6. The tenderer's attention is directed to the requirements for material under the clause "Materials and Workmanship" in the general conditions to contract, Materials confirming to the I.S.I. standard shall be used on the work and the tenderer shall quote his rates accordingly.

7. Every tenderer is expected before quoting his rates, to inspect the site of the proposed work. He should also inspect the quarries and satisfy himself about the quality and availability of materials. The best class of materials to be obtained from the quarries or other source, defined shall be used on the work. Samples of Materials as called for in the standard specification or in this tender notice or as required by the Executive Engineer shall be submitted for the Executive Engineers approval before the supply to site of work is begun.

TAHDCO will not, however, after acceptance of contract rate, pay any extra charges for lead or for any other reason, incase the contractor is found later on, to have misjudged the materials available. Attention of the contractor is directed to the General Conditions to Contract regarding payments of seigniorage, tolls, etc.,

8. The tenderer's particular attention is drawn to the sections and clauses in General conditions to contract 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.

The contractor should closely peruse all the specification clauses which govern the rates, which he is tendering.

9. Schedule of quantities accompanies this tender notice. It shall be definitely understood that the TAHDCO does not accept any responsibility for the correctness or completeness of this schedule and this schedule is liable to alterations, omissions, deductions or additions at the direction of the Executive Engineer, TAHDCO, Vellore division in the conditions of the contract.

10. In case of tender called for under % (Percentage) rate tender system, the tenderer should workout his own rate but quote his percentage rate above '4' should be deleted or below the total estimated cost of the work of the department indiated in the tender schedule.

11. The attention of the tenderer is directed to the contract requirements as to the 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 proportionate value of work done from time to time as will be indicated by the Executive Engineers certificates of the values of work done, will be required. Date of commencement of the programme will be the date on which the site (or premises) is handed over to the contractor.

Period after date of Commencement	Total Percentage of work to be completed based on the contract lump sum amount
1 st Month	10 %
2 nd Month	25 %
3 rd Month	40 %
4 th Month	60 %
5 th Month	75 %
6 th Month	100%

<u>NOTE :-</u> The period to be entered in column 1 for the purpose of following the rate of progress may be fixed by the **General Manager (TECH),TAHDCO, Chennai** to suit each case.

12.No part of the contract shall be sub-let, without written permission of the Executive Engineer, nor shall transfer be made by power of attorney, authorising others to receive payments on the contractor's behalf.

13.If further necessary information is required, the **General Manager (TECH), TAHDCO, Chennai** will furnish such, but it must be clearly understood that tenders must be received in order and according to instructions.

14. The tender committee or other sanctioning authority reserves the right to reject any tender or all the tenders without assigning any reasons thereof.

15.The tenderers who are themselves not professionally qualified shall undertake to employ qualified technical men at their cost to look after the work. The tenders should state in clear terms whether they are professionally qualified or whether they undertake to employ technical men, required by the department specified in the schedule below for the work. Incase selected tenderer is professionally qualified or has undertaken to employ technical men under him, he should see that one of the technically qualified men is 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 (eg.) reinforced cement concrete works, etc.

(The norms for the employment of to	IT OF TECHNICAL ASSISTANT. echnical assistant and penalty for non-employment of nt etc., is furnished in the format below)
Value of Contract	Qualification and No. of Technical Assistant to be employed
i. From Rs. 1.00 lakh and upto 5.00 lakhs	 One diploma holder in Civil Engineering (OR) Not Less than one retired Junior Engineer
ii. From Rs. 5 to 10 lakhs	 One B.E. (Civil) (OR) Equivalent degree holder (OR) Not less than one retired Sub – Divisional Officer AEE /ADE (OR) One Diploma holder with three years experience.
iii. From Rs.10 to 25 Lakhs	 One B.E. (Civil) or equivalent degree holder with 3 years experience plus one Diploma holder in Civil Engineering (OR) Not less than one retired Sub – Divisional Officer plus one Diploma holder in Civil Engineering (OR) Two Diploma holders in Civil Engineering with 3 and 5 years experience respectively.
iv. From 25 to 50 lakhs.	 One B.E. (Civil) with 3 years experience plus two Diploma holders in Civil Engineering (OR) One B.E., (Civil)) with 3 years experience plus two retired Junior Engineers (OR) Equivalent degree holder with 3 years experience plus two Diploma holders in Civil Engineering (OR) One retired Sub – Divisional Officer AEE /ADE plus two Diploma holders in Civil Engineering (OR) two retired Junior Engineers
v. Above Rs. 50. lakhs.	To be examined in individual cases depending upon the nature of work and the technical skill involved and defined in the tender notice regarding the number pf qualified personnel to be employed by the tenderer.

i. A penalty of Rs.2,000 per month for diploma holder and Rs.5,000 per month for degree holder be levied in case of default on the part of contractors in the norms mentioned above.

ii. The employment of Technical Assistants could be based only on the value of contract. Engineer with mechanical Engineering qualification and retired from Civil Engineering department are also suitable to supervise the Civil Engineering works, because of their experience in Civil Engineering field.

iii. It will no be incumbent on the part of contractor to employ Technical Assistants when the work is kept in abeyance, due to valid reasons and if during such period in the opinion of the Executive Engineer, the employment of Technical Assistant is not required for the due fulfillment of the contract

iv. A movement register should be opened and maintained for Technical Assistant, employed by the Contractor or for the technically qualified contractor. Technical Assistant or Technically qualified contractor should note the arrival and the departure timings every day along with their initials. Such register should be produced during inspection of the inspection officers.

v. Without prejudice to the generality of the above clause the contractor shall during the currency of the contract, when called upon by the Engineer-in-Charge engage and also ensure engagement by the Sub-Contractors and others employed by the contractor in connection with the work, such number of apprentices in the category mentioned below and for such period, as may be required by the Engineer-in-Charge. The contractor shall train them as required under the apprentices' act 1961 and the rules made there under and shall be responsible for all obligations of the employer under the said act including the liability to make payments to apprentice as required under that said act.

17. The contractor should offer employment to ex-toddy toppers as far as possible.

18. The contractor shall comply with the provisions in 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 the contract and the competent authority may be at his discretion, cancel the contract or invoke any of the penalties for the breach of the contract provided in the conditions of contracts. The contractor shall also be liable to any pecuniary liability arising on account of any violation by him of the provisions of the act. Contractor shall during the currency the contract, ensure engagement of the apprentices in the categories mentioned below who may be assigned to him by the Director of Employment and Training / State Apprenticeship Adviser, Tamil Nadu. The contractor shall train them as required under the Apprentices act, 1961 and the rules made there-under, and shall be responsible for all obligations of the employer under the said act including the liability to make payment to the apprentices as required under the said Act.

Value of Contract	Category	Number to be appointed
(1)	(2)	(3)
Rs.1.00 Lakh and upto Rs.3.00 Lakhs	 Building Constructor Brick Layer 	1 1
Above Rs.3.00 Lakhs and up to Rs.10.00 Lakhs	 Building Constructor Brick Layer Diploma holder in Civil 	1 1 1
Above Rs.10.00 Lakhs and upto Rs.50.00 Lakhs	 Building Constructor Brick Layer B.E. (Civil)or Equivalent 	1 1 1

"Unless the contractor has been exempted from engagement of apprentices by the Director of Employment and Training / State apprenticeship Advisor, a Certificate to the effect that the contractor had discharged his obligation under the said act, satisfactorily" should be obtained from the Director of Employment and Training / State Apprenticeship Advisor and the same should be produced by the Contractor for final payment.

19. In the case of contracts for construction of buildings other permanent or semi permanent a sum equivalent to 2.5% of the value of work done including cost of GST, will be retained with the TAHDCO for a period of ONE year reckoned from the date of completion of the work in order to enable the department officers to watch the effect of all seasons on the work done by the contractor. The amount so retained with the TAHDCO will be refunded only on the expiry of ONE year period referred to above and on execution of indemnity bond by the contractor for a further period for FOUR years. The contractor will be liable for setting right all the defects arising out of his faulty execution or sub standard work, noticed during the above five years period at his cost.

20. A statement giving particulars of equipment resources that will be put at the disposal of the work under the following classification should accompany the tender.

a) Equipment (Transport of materials viz., lorries and carts, concrete mixers etc.,)

b) Organization i) Technical & ii)Unskilled

21. The tender of the contractor who agrees to employ the maximum No. of Ex. Service Man (No. to be specified in the tender) will receive preferential consideration. The tenderer is requested to report on the covering letter.

22. The Executive Engineer reserves 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.

23. All rates quoted in the tender shall be inclusive of Sales Tax payable under the Sales Tax act as amended from time to time (including amendment act 38/34) and that the contractor is responsible to file the Sales Tax return and pay the amount of Sales Tax as amended by the Commercial Tax Department. No request for payment of Sales Tax separately in addition to the tendered rates due to any plea of subsequent levy or increase in tax will be entertained (vide clause 38 (2) of general conditions of contract).

24.No seigniorage shall be charged, where due for material quarried from the PWD or other Government Quarries. Assistants as necessary shall be given to the contractor by the Department to obtain access to quarries approved by the Executive Engineer. No plot rent will be charged for material stocked on Government land during the course of construction, provided all such material are removed within one month, after the work is completed.

25. Seignior age or charge due for the use of private quarries lands shall be paid by the contract.

APPENDIX II (A) TENDER

То

The Managing Director, TAHDCO, No. 31, Cenotaph Road, 2nd Cross, Teynampet, Chennai – 600 018.

Sir,

2. I/ We have also completed the priced list of items in Schedule 'A' annexed (in words and figures) for which I/ We agree to execute the work and receive payment on measured quantities as per the general conditions of contract.

3. I/ We do hereby distinctly and expressly declare and acknowledge that before the submission of my or our tender, I/We have carefully followed the instructions in the tender notice and have read the Tamilnadu Building practices and the general conditions to the contract therein and the Tamilnadu Building Practice addenda Volume, and that I/We have made such examination of the contract, documents and of the plans, specifications, quantities and of the location, where the said work is to be done, and such investigation of the work required to be done and in regard to the materials required to be furnished as to enable me / us, to thoroughly understand the intention of the same and requirement, covenants, stipulation and restrictions contained in the contract and on the said plans and specifications and distinctly agree that I/We will not hereafter make any claim or demand upon the Government based upon or arising out of any alleged misunderstanding or misconception or mistake on my/our part of the said requirements, covenants, stipulation and restrictions and conditions.

4. I / We enclose an Income Tax verification certificate. I/ We being a Registered TAHDCO Contractor have already produced an income Tax verification Certificate during the current year in respect of (here particulars of previous occasions on which the certificate was produced should be given). The legal address of the contractors for service of all letters and notices will be as follows:

Date :

5. (i) (a) I /We have paid Rs....../ - (RupeesOnly) as against the Earnest Money Deposit of Rs.Only) since I am / We are eligible to pay the Earnest Money Deposit at concessional rates.
5. (i) (b) In lieu of cash deposits I / We have enclosed a bearing No......

• • •	d issued by				0		
(Rup	2						
		only) Drawn/	endorsed	pledged	in fa	avour	of
	Executive Engineer, TAHDCO, Vellore						

5.(i) (c) I am / We are and hence exempted from payment of Earnest Money Deposit.

6.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 two months from the date of this tender, which ever is earlier. If tenders is accepted, the Earnest Money shall be retained by TAHDCO as security for the due fulfillment of contract. If upon intimations being given to me/us by the authority authorised by TAHDCO article 299 (i) of the Constitution (here after called "the accepting authority") of acceptance of tender (I/We) fail to make the additional security deposit, then I/We agree to the forfeiture of earnest money deposit. Any notice required to be saved on me/us hereunder shall be sufficiently served on me/us by post to (Registered or Ordinary) or left at my/our address given herein. Such notice shall, if 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.

7. I /We fully understand that on receipt of communication of acceptance of tender from the accepting authority, there emerges a valid contract between me/us and the General Manager (Tech), TAHDCO, Chennai – 18 on behalf of the Managing Director, TAHDCO and the tender documents (i.e). tender notice tender with schedules, General conditions to the contract and Special Conditions of the tender, negotiation letters, communication of acceptance of tenders, shall constitute the contract for this purpose and be the foundation of rights of both the parties, provided that, it shall be open to the accepting authority to insist on execution of any written agreement by the, if administratively considered necessary or expedient.

8. I /We have also signed the copy of the Tamil Nadu Building Practice and Addenda Volume, thereto maintained in the divisional Office at in acknowledgement of being bound by all conditions of the clauses of General conditions to the contract and all specifications for items of work described by a specification number in Schedule'A'.

10. (i) The term "Executive Engineer" in the said conditions shall mean the Public Works department Officer in charge of the division having jurisdiction for the time being over the work who shall be competent to exercise all the powers and privileges reserved herein in favour of the corporation with the previous sanction of or subject to ratification by the competent authorities in case where such sanction of ratification may be necessary and who has been duly authorised under Article 299 (1) of the Constitution.

(ii) In the event of the work being transferred to any other division./ Sub division the Executive Engineer / Assistant Executive Engineer who is incharge of the work will exercise the powers and privileges reserved in favour of Corporation.

11. I/ We agree that the time shall be considered as the essence of this Contract and I/We hereby agree to commence the work as soon as this contract is accepted by the competent authority as defined by the Tamil Nadu Public Works Department code and the site (or Premises) handed over to me/us as provided for in the said conditions and agree to complete the work within **Six (6) Months** from the date of such handing over of the site (or premises) and to show progress as defined in the tabular. "Rate of Progress" subject nevertheless to the provisions for extension of time contained in clause 56 of the General conditions of contract appended to the Tamil Nadu Building Practice.

12. I/We agree that upon the terms and conditions of this contract being fulfilled and performed to the satisfaction of the Executive Engineer, the Security Deposited by me/us as here in before recited or such portion thereof as I/We may be entitled to, under the said conditions, be paid back to me/us provided in clause 64 of the General Conditions of contract.

13. I/We am/are professionally qualified and my/our qualifications are as follows

I/We in pursuance of clause 18 of tender notice, undertake to 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 may require special attention (e.g.) reinforced cement concrete etc.,

SI.No.	Name of Technical Staff Proposed to be employed	Qualification	Experience
1			
2			
3			

14. (i) I/We agree that the arbitrator for fulfilling the duties set forth in the arbitration clause

of the General conditions to the contract shall be :- Rs. 2,00,000/- and

(ii) I/We agree that in case the value of claim is Rs.2,00,001/- and above the remedy will be through the competent civil court only.

Signature of the Contractor with date

accepted on this day of.....

Signature and Designation

Signature of the Witness in full and

address with name in block letters.

General Manager (Tech.), TAHDCO, Chennai – 18.

SCHEDULE - 'C'

List the specifications for the various items of works supplementing those described in schedule – 'A' by Standard Specification numbers

1. The contractor shall employ the following Technical staff for supervising the work and shall 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 may demand special attention e.g. reinforced cement concrete work, etc.

Note : Incase contractor is himself professionally qualified, the above specification should be suitable altered and in cases in which the contractor selected has not given an undertaking to employ qualified men it should be scored out.

2. A penalty of Rs.2000/- per month for Diploma Holder and Rs.5000/- PM for Degree holder be levied – in case of default on the part of the contractors as per norms fixed by the Government for employment of Technical Assistant.

3. The employment of Technical Assistant should be based only on the value of contract Engineers with Mechanical Engineering Departments are also suitable to supervise the Civil Engineering works because of their experience in Civil Engineering Fields.

4. In case of the contractor who is professionally qualified is not in a position to remain always at the site of the work during hours personally checking all items for the work and paying extra attention to work as may demand specific attention (eg.) R.C.C. work etc., he should employ technically qualified men as prescribed for the works.

5. A movement register should be maintained for Technical Assistants employed by the Contractor or for the technically qualified Contractor. The Technical Assistants or Technically qualified contractors should not the arrival and the departure timings every day along with-their initials. Such register should be produced during inspection of the inspecting officer.

6. It will not be incumbent on the part of the contractor to employ Technical Assistants when the work is kept is abeyance due to valid reasons and if during such period in the opinion of the Executive Engineer, the employment of Technical Assistants is not required for the due fulfillments of the contract.

II TENDER

- 1. Tenders with tampered seals will not be accepted.
- 2. Tenders containing overwriting, corrections which are not attested by the tenderers will be liable for rejection.
- 3. The contractor should satisfy himself about the availability of the various materials at the quarries specified in the tender schedule for the work before tendering. In case, the contractor feels any difficulty in procuring the material from the stipulated quarries he should make a special mention of the fact with details of the quarry / quarries from which he proposes to bring the required materials for the work in the covering letter to accompany his tender. Any claim fro payment of extra cost on account of increase in the lead for materials at the later stage will not be accepted.
- 4. In case it is found by the Departmental Officers that the contractor has brought any of the required materials from a quarry with lesser lead than that is specified in the schedule, proportionate deductions will be made from the contractors rate of payment for the finished work for the respective item / items of work.
- 5. A deduction of 2% will be made towards Income Tax from every payment made to the contractor.

III EXECUTION OF WORK

- 1. The entire work should be carried out as per specifications in the National Buildings code and Taminadu Building Practice.
- 2. The contractor shall made his own arrangements for clean and fresh water and shall meet all charges therefore. The special attention of the contractor is drawn to clause 36 of General Conditions of Contract regarding water and lighting.
- 3. The rates specified in schedule for the different items of works are for the finished works.
- 4. The contractor's rates are inclusive of Sales Tax payable by the contractor to Government as per the Tamilnadu General Sales Tax act of 1939 as amended from time to time. No enhanced rates will be paid to the contractor for any upward revision of Sales Tax during the currency of the contract.
- 5. All minor baling and pumping incidental of the work shall be borne by the contractor. Where heavy pumping is required the baling will be done departmentally. If the contractor is asked to do, the charges will be paid as per actuals plus 10%. The Executive Engineer in-charge of the work will be the final authority to decide whether pumping is minor or heavy.
- 6. The payment for Earth work will be made for embankment excluding the quantity of pebbles, boulders and other such materials which shall not normally be used along with the earth for formation of bund.
- 7. The cement concrete for reinforced cement concrete works shall be machine mixed.
- 8. The lime mortar shall be ground in mortar will as per T.N.B.P.

- 9. More than 90 cm height of concrete should not be laid in one day. At the place where the concrete is stopped, it should end in the form of steps so as to facilitate receiving of the next length of concrete. Once a height of 90cm of concrete is laid, it should be cured for three days before further concrete is laid.
- 10. The teakwood or country wood (Karumarudhu or pillaimarudu) shall be of best quality and shall be subject to inspection and approval by Executive Engineer before use on the work.
- 11. PAINTING: Paint used for the work shall be of approved brand and colour.
- 12. PLASTERING: All external corners "TEE" beam edges and doors and windows opening etc., shall be finished truly vertical or horizontal as the case may be. The rate for plastering shall include the cost of finishing. No separate extra for finishing the corners edges of beams etc., will be paid.
- 13. The planks for form work and centering for reinforced cement concrete works shall be well seasoned timber approved by the Executive Engineer according to clause 8 of T.N.B.P. No.30. They must be made smooth and perfectly level at top so as to give smooth and even finish to the reinforced cement concrete ceilings. Alternatively, the contractor may use steel sheets over wooden frames provided the required finish to the underside for the slab is obtained. Mango Planks shall not be used under any circumstances. Centering and form works hall be provided to the extent and areas ordered by the Executive Engineer during the execution.
- 14. The arrangements of steel rods for reinforcement for reinforced concrete works shall be in accordance with the working drawing supplied.
- 15. The Executive Engineer will be at liberty to carry out any portion of the work at any time either departmentally or through any other agency in the interest of Corporation without assigning any reasons therefor to the contractor who is actually doing the work. The contractor is not entitled for any compensation on account of the same. The contract will apply subject to this condition.
- 16. In the event of the work being transferred to any of the Division / Sub-division the Executive Engineer/ Assistant Executive Engineer who is in-charge of the Division / Sub-division having jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favour of the Corporation.

IV. CEMENT AND STEEL SUPPLY BY CONTRACTOR (SPECIAL CONDITION)

CEMENT

Cement required for the work should be procured by the contractor him self. The quality of cement to be used should confirm to ISI (as per specification furnished). Cement should be procured from main producers (brand to be approved by departmental officers)

STEEL

The steel and binding wire for the work should be procured by the contractor himself. The strength with steel should confirm to ISI. No extra charge will be paid for welding of rods if found necessary. (as per specification furnished). Steel should be procured from main producers and secondary producers rerolling from tested billets only.

Cement steel to be used on works should be got approved from the departmental officers before use on works necessary test certificate has to be produced at the time of supply.

GENERAL SPECIFICATION

The term Indian standard specifications herein after referred to as IS means the relevant Indian Standard Specifications with all amendments published unto the date of submission of tenders. A statement of relevant IS applicable to context i.e., cement and steel is furnished as detailed below.

LIST OF MATERIALS I.CEMENT

1.	Specifications for ordinary and low heat Portland cement	269 – 1989	10
2.	Specification for Portland pozzolana cement	1489 – 199	1 10 A
		Par	t I & II
3.	High strength ordinary cement (with amendment Nos 1 to 4) 8112 – 197	78
4.	Rapid Hardening Portland Cement	8041 ·	- 1978
11 \$	STEEL		
1.	Code of Practice for bending and fixing of bars for concrete 2 reinforcement.	502 – 1963	30,86
2.	Specification for High Strength Deformed steel bars and wires of concrete reinforcement	1786 - 1985	30,86
3.	Code of Practice for welding of M.S. of practice for use for reinforce concrete construction.	2751 - 1979	30,86
4.	Code of practice for use of metal are welding for genera construction in mild steel	ll 6 - 1969	30,86
5.	Specification for hot rolled mild steel, medium tensile steel and high yield strength steel deformed bars for concrete reinforcement (revised)	1139 - 1966	30,86
6.	Recommendation for detailing or reinforcement in reinforced cement concrete works.	5525 - 1969	30,86
7.	Specification for mild steel and medium Tensile steel bars for concrete reinforcement	432 – 966 (Part – I)	30,86
8.	Code of Practice for safety and health requirement in Electric and Gas welding and cutting operations.	818 - 1968	30,86
9.	Code for practice for fire precautions in welding and cutting operations	3016 - 1982	30,86
10.	Measurement of Building and Civil Engineering Works, part – VIII steel work and from work.	1200 – 1974 (Part – VIII)	30,86

11.	Code of practice for manual of metal and welding of mild steel	823 - 1964
12.	Structural steel (Standard quality) fifth amendment No.1 to 5	226 – 1975
13.	Specification for filler rods and wires for gas welding	1278 - 1972

III. CENTERING WORKS

- 1. Payments for centering works to all RCC items shall be made only after concrete is laid, even though separate rate is called for, for centering work in the schedule.
- 2. The Contractor will be held responsible for the proper safe custody of all the Departmental Materials which are handed over to the contractor until they are finally used on the work or taken over by the department.
- 3. The shed for storing materials should be put up the contractor at his own cost.

IV. SPECIAL CONDITIONS FOR EARTH WORKS EXCAVATION IN HARD ROCK REQUIRING BLASTING.

In the case of earthwork excavation in hard rock requiring blasting the tenderer should observe the following conditions.

a. The blasted rock shall be compactly stacked for measurement. The net quantity of blasted rock shall be arrived at by allowing a deduction 40% for voids and compared with the pre measured quantity and only the lesser of the Two shall be paid.

Where the rock other than hard rock and hard rock are mixed upon ground, the Two kinds of rocks shall be stacked separately for measurement. The net measurement of the Two kinds of rock shall be arrived at by applying 40% deduction for voids the total of the net measurement of two kinds of rock shall be compared with the pre measured quantity and only the leaser of the two shall be paid for. If the total of net measurement of the two kinds of rock exceeds (or) falls short of the measurement of mixture, the volume for mixture proposed to be paid shall be apportioned in the proportion of the net actual measurements of stacks of the two kinds of rocks.

Note: i) 40% deduction for voids shall be adopted for compact and proper stacking but such percentage of deduction shall be increased for loose (or) improper stacks.

ii) The blasted rock material, stacked, measured and paid for shall become the property of the department.

iii) I.S. Code No.1200 (Part.I) 1969 method of measurement of buildings and Civil Engineering of work. Part I "Earthwork" may be referred as and when necessary.

GENERAL CONDITIONS OF CONTRACT

A. PREFACE

1. Intent and reference to Tamilnadu Building Practice.

It is intended by these Tamilnadu Practice to describe;

a) the Character of the materials to be used.

b) The method of execution of work and

c) the contractor's responsibilities to the Public, Government and his workmen and general contract conditions which are to be accepted by every contractor who execute work entrusted to him by the Department.

1.2 Wherever the term "Standard Specifications" or "Specifications" or the abbreviation "T.N.B.P.No." or "TNBP" is used in the specifications or in estimates or contract documents, it shall refer to the relevant specification in the Tamilnadu Building Practice.

1.3. The abbreviation "I.S" shall mean "Indian Standard"

2. Applicability of the Tamilnadu Building Practice

2.1 It shall be unnecessary to include in any contract documents a specification for any item of work which is defined in the tender notice or in the contract schedule of work to be done by a Tamilnadu Building Practice number (TNBP No.) The fact that the item is defined as specification, shall mean that the contractor is to execute the work according to such specification modified as may be necessary by an addendum specification for that particular item of work. In the absence of specification for any work or material in the T.N.B.P. such work should be carried out in accordance with the instruction given by the Executive Engineer.

2.2. THESE GENERAL CONDITIONS OF CONTRACT SHALL APPLY TO ALL AGREEMENT ENTERED INTO BY CONTRACTORS WITH THE PUBLIC WORKS DEPARTMENT OR HIGHWAYS AND RURAL WORKS DEPARTMENT AND shall from an inseparable condition of contract and it shall not be necessary to append a copy of the same to the agreement.

<u>3.</u> <u>Contractor's to sign in the Divisional (or the sub-Divisional) copy of the T.N.B.P.</u>

3.1 Every contractor who executes work for the Public Works Department or the Highways and Rural Works Department shall carefully study the specification for all items of work which are included in the schedule for work to be done and his obligation under the "General conditions of contract" which apply to all agreements, and he shall sign in the Divisional Office copy of the T.N.B.P. (or the Sub-Divisional Office copy if so arranged by the Executive Engineer as evidence that he understands clearly the conditions of contract governing his agreement and accepts the same.

3.2. It shall not be necessary for the contractors to sign the Divisional Office copy of the T.N.B.P. for every contract awarded to him, but his signature therein will be evidence that he accepts the conditions of contract (which include the specifications) as detailed in the T.N.B.P. for every contract into which he enters. It shall also be the contractor's responsibility by frequent perusal of the Divisional Office (or the sub-Divisional Office) copy to become conversant with sanctioned alterations or addition as made to the T.N.B.P. as soon as they are made. A separate volume of addenda to the T.N.B.P. will be maintained in each Division (or sub division office) as the case may be, in which will be entered all sanctioned corrections and additions.

This must also be studied and signed by every contractor before executing an agreement. Interleaving correction slips will not be made for this purpose. The contractor should purchase copy of the T.N.B.P. for his reference while executing work.

4. Sub – Specifications

4.1. Works of similar nature having many common clauses in their specifications are grouped under one specification number with a 'General' preface thereto and the sub -specifications are therefore given an alphabetical affix.

5. Additions and alterations to the T.N.B.P.

5.1. Additions and alterations to the T.N.B.P. will be incorporated in the addenda volume as authorized by the Chief Engineer.

6. Power of General Manager (Tech) and Executive Engineers to supplement or alter the T.N.B.P.

6.1 General Manager (Tech) and Executive Engineer may alter the specification for any particular contract which is within their respective powers of sanction, when such alteration is found necessary by attachment of a correction sheet to the contract form, bearing the T.N.B.P. number, the corrections and the signature of the Superintending Engineer or the Executive Engineer as the case may be, together with the signature of the contractor. Similarly additional specifications for items for which there are no standard specifications will be made by attachment to the contract documents of addendum specifications sheets bearing the signature of the Superintending Engineer or the Executive Engineer as the case may be and the signature of the contractor.

A-1. DEFINITIONS AND INTERPRETATIONS

7. Definition of terms

7.1. Where the works and expressions defined in this clause or pronouns used in their stead occur in contract documents (which includes the T.N.B.P.) they shall have the meanings hereby assigned to them except where the context otherwise requires:-a) Executive Engineer means the Executive Engineer for the time being in charge of the concerned work under execution or such other departmental assistants or subordinates to whom the Executive Engineer may have delegated certain duties, acting severally within the scope of the particular duty entrusted to them.

b) No delegation by Executive Engineer which affects agreements.

It is however, to be distinctly understood that the Executive Engineer or the General Manager (Tech) or the higher authority who is vested with the powers of acceptance of the particular agreement under reference will make no delegation of powers to such assistants or subordinates with in any way affects the agreement and its contract condition when such agreement is to be or has been accepted by the Executive Engineer or by the other higher authority respectively. The duties of such assistant or subordinates will be solely duties of supervision to ensure compliance with contract conditions.

c) contractor means the particular persons firm or corporation with whom an agreement has been made by the Executive Engineer or higher authority as the case may be, for executing work defined in the concerned agreement, and for purpose of instruction regarding compliance with contract conditions, it shall include the contractor's authorized agent, who is maintained on the work by the contractor. Contractor

d) "Works or work means" the works by or by virtue of the contractor contracted to be executed whether temporary or permanent and whether original, altered substituted or additional or connected with the supply repairs or carriage of tools and plant and supply or manufacture of other stores.

7.2. Works importing the singular only also include the plural and vice – versa where the context requires.

NOTE: The terms sub-divisional officer, Assistant Executive Engineer, Executive Engineer, General Manager (Tech), used in the following clauses shall where the context so requires be construed as also including officers of the corresponding grade in the TAHDCO.

8. Evidence of Experience

Tenderers shall, if required, present satisfactory evidence to the engineer that they have been regularly engaged in constructing such works, as they propose to execute and that they are fully prepared with the necessary capital, machinery and materials to begin the work promptly and to conduct it as required by the T.N.B.P. and the other specifications for the particular work if tendered for, in the event of their tender being accepted.

9. Legal address / Notices

9.1 Tenderers should given in their tender their place of residence and postal address. The delivering at the above named place or posting in a post box regularly maintained by the post Office Department or sending by letter registered for acknowledgment of any notice, letter or other communication to the contractor shall be deemed sufficient service thereof upon the contractor in writing as may be changed at any time by an instrument executed by the contractor, and delivered to the Executive Engineer.

9.2 Nothing contained in the agreement and its contract conditions shall be deemed to preclude or render inoperative the service of any notice, letter or other communications upon the contractor personally.

B. STATEMENT OF APPROXIMATE QUANTITIES IN SCHEDULE-A

The quantities mentioned in tender notices and in agreement schedule – A, are worked out from the relevant drawing in office may or may not be the actual required for execution. The Executive Engineer does not expressly or by implication agree that the actual amount of work to be done will correspond therewith but reserves the right to increase or decrease the quantity of any class or portion of the work as he deems necessary.

Tenderers must satisfy themselves by a personal examination of the site of the proposed work, by examination of the plans and specifications and by other means as they prefer as to the accuracy and suffiency of the statement of quantities and all conditions affecting the work and shall not at any time after the submission of their tender, dispute or complain of such statement of quantities or assert, that there was any misunderstanding in regard to the nature or amount of the work to be done nor in consequence apply for extension of time for completion beyond the agreement date.

11.Approxmate not to mean deviation from drawing and specification

11.1 This declaration of the approximate nature of the statement of quantities in schedule. A does not, however, in any way imply that the quantities will be increased for departure by the contractor from strict compliance with sanctioned drawings and specifications to suit his own convenience or reduce his costs.

<u>12. To compare tenders</u>

12.1 The quantities in schedule – A are given for a uniform comparison of lump-sum tenders.

C.DRAWINGS AND SPECIFICATIONS

13. Purpose

13.1 The contract drawing if any, read together with the contract specifications are intended to show and explain the manner of executing the work and indicate the type and class of materials to be used.

14.Conformance

14.1 The works shall be carried out in accordance with the drawings and specifications which form part of the contract and in accordance with such further drawing, details and instructions, supplementing or explaining the same as may from time to time be given by the Executive Engineer.

14.2 If the work shown on any such further drawings or details, or other work necessary to comply with any such instructions, directions, or explanations, be in the opinion of the contractor, of a nature which the schedule rate in the contract does not legitimately cover he shall before proceeding with such work give notice in writing to this effect to the Executive Engineer and contractor failing to agree as to whether or not there is any excess rate to be fixed and the Executive Engineer deciding that the contractor is to carry out the said work, the contractor shall accordingly do so, and the question whether or not there is any excess and if so the amount there of shall failing agreement, be settled by an contractor as provided in the arbitration clause, unless the subject is one which is left to the sole discretion of the Executive Engineer under the clauses of these condition of contract and the contractor shall be paid accordingly.

14.3 It shall be the responsibility of the contractor to give timely notice to the Executive Engineer recording anything shown on the drawings and not mentioned in the specification, or mentioned in

the specifications and not shown in the drawings or any error or discrepancy in drawings or specifications and obtain his orders thereon. Figure dimensions are to be taken and not those obtained from scaling the drawings. In any discrepancy between drawings and specifications, the latter shall prevail. In any such cases or in case any feature of the work is not fully described and set forth, in the drawings and specifications, the contractor shall forth with apply to the Executive Engineer for such further instructions, drawings or specifications as he requires it, being understood that the subject to be dealt with under the building procedure of best modern practice. The Executive Engineer will furnish the further instructions, drawings or specifications if in his opinion; they are required by competent workmen, for the proper execution of the work.

15. Variations by way of modifications, omissions or additions

15.1 For all modification, omissions from or additions to the drawings and specification, the Executive Engineer will issue revised plans, or written instructions or both and no modifications, omissions or additions shall be made unless so authorised and directed by the Executive Engineer in writing.

15.2 The Executive Engineer shall have the privilege of ordering modifications, omissions or additions at any time before the completion of the work and such orders shall not operate to annual those portions of the specifications with which said changes do not conflict.

15.3 The contractor shall submit to the Executive Engineer a statement giving details of the claims for any additional work within 30 days of the order of the work and no claim for any such work will be considered which has not been included in the statement.

16. Copies of drawing and specifications

16.1 One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of which the contractor should purchase for his reference) shall be furnished free of the contractor for his own use, such copies and copies of supplementary details furnished by the Executive Engineer shall be kept by the contractor on the work until the completion thereof, and the Executive Engineer shall at all times have access to them.

17. Signed drawing no authority to the contractor

17.1 No signed drawing shall be taken as in itself an order for variation, unless either is it entered in the agreement schedule of drawings under proper attestation of the contract or and the Executive Engineer or unless it has been sent to the contractor by the Executive Engineer, with a covering letter confirming that the drawing is an authority for variation of the contract under reference.

D. MATERIALS AND WORKMANSHIP

18. To be the best quality

18.1 All materials, articles and workmanship shall be the best of their respective kind for the class of work described in the contract specifications and schedule materials being obtained from sources approved by the Executive Engineer. The work "best" as used in these specifications shall mean that in the opinion of the Executive Engineer there is no other superior quantity of materials or finish of articles on the market and that t here is no better class of workmanship available for the nature of the particular item described in the contract schedule. The contractor shall, upon the request of the Executive Engineer, furnish him with the vouchers to prove that the materials are such as are specified.

18.2. Samples of materials shall be furnished at the contractor's expense to the Executive Engineer when called for in the tender notice or ordered to be furnished by the Executive Engineer prior to execution of any work.

<u>19.</u> <u>convention for proportions</u>

19.1 Wherever the proportions are written by figures without further description and where the meaning is otherwise clear as to which figure is intended to apply to each material then the usual conventions will be understood to apply.

For example,

1:2 Means 1 lime (or cement in accordance with the content) and 2 sand.

1:2:4 Means 1 Lime (or cement in accordance with the content) 2 sand 4 broken stone (or other aggregate in accordance with the content.)

20 Measurement and mixing

20.1 In the case of loose materials such as lime sand, cement, broken stone, surki, mortar, etc., the proportions demanded by the specifications must be measured in properly constructed measuring boxes or weighed or in such other manner as shall be instructed by the Executive Engineer, measurement is not to be done in loose heaps when intimate mixtures such as motar concrete, etc., are to be formed. The mixing must always be done on closely constructed platforms so that there will be no leakage of any of the materials through the floor of the platform and also that no foreign materials can be incorporated during the mixing. These platforms must be approved by the Executive Engineer. The cost of such measuring boxes and platforms and all the work referred to herein shall be borne by the contracts.

21. Data

21.1. The materials and labour utilized in the execution of work by the contractor shall not be less than that given in the Tamilnadu PWD., Standard Data for the relevant item.

NOTE: In case the contractor considers that the materials and labour provided in the T.N.P.W.D. Standard data for the execution of particular items of work are in excess, the contractor may furnish detailed data for such items along with tender with reasons for variations from PWD., Standard Data.

22. Layout of Materials stacks

22.1. The contractor shall deposit materials for the purpose of the work on such parts only on the ground as may be approved by the executive Engineer. He shall submit for the approval of the Executive Engineer before starting work, a detailed site survey clearly indicating positions and areas where materials shall be stacked and sheds built.

23. Source of purchase of materials and stores.

23.1. The Executive Engineer shall, during the progress of the work, have power to cause the contractor to purchase and use such materials or supplies from Government brick fields, stores or other sources as may be specified in the contract for the purpose therein specified.

24. Contractor liable for materials supplied by Government. 24.1. The contractor shall be responsible for all materials and other articles and things which may be supplied by Government from the time he takes delivery thereof and shall use them only for the purposes of this contract and shall make good any loss, damage wastage or undue wear and tear that may take place form whatever cause and pay to Government for such loss, damages, wastage or undue wear and tear such sum as the Executive Engineer may determine.

24.2. If at any time subsequent to the execution of the agreement Government materials other than those specified in the Agreement are to be supplied to the contractor for use on the work they will be charged at the market value prevailing at the time of supply or stock issue rate whichever is greater. The contractor will be informed in writing of this change and the should intimate in writing the rate which he demands for finished work in view of the fact that he is to use Government materials.

25. Test inspection and rejection of defective materials and works:

25.1. The contractor shall provide proper facilities at all items for the testing of materials and inspection of the work by the Executive Engineer, and the Executive Engineer shall accordingly also have access at all times to the places of storage or manufacture where materials are being made for use under the contract to determine that manufacture is proceeding in accordance with the drawings and specifications.

25.2. The contractor shall, upon demand, also forward for the Executive Engineer's inspection test certificate supplied by the vendors, when he is purchasing consignment of cement, steel and other materials in respect of which such certificates are usually available.

25.3. The Executive Engineer shall have power to reject at any stage, any work which he considers to be defective in quality of material or workmanship and he shall not be debarred from rejecting wrought materials by reasons of his having previously passed them in an un-worked condition. Any portion of the work or materials rejected or pronounced to be inferior or not in accordance with the drawing and specifications,

shall be taken down and removed from the work site at the contractor's expense, within 24 hours after written instructions to that effect have been given by the Executive Engineer. Replacement shall at once be made in accordance with the specifications and drawings at the contractor's expense.

25.4. In case of default on the part of the contractor to carry out such orders the Executive Engineer shall have power to employ and pay other persons to carry out the orders at the contract's risk and all expenses consequent thereon incidental thereto shall be borne by the contractor.

25.5 In lieu of rejecting work not done in accordance with the contract, the Executive Engineer may allow such work to remain, and in that case shall make such allowance for the difference in value, as in his opinion may be reasonable.

25.6. Works opened for inspection:- The contractor shall, at the request of the Executive Engineer within such items as the Executive Engineer shall name, open for inspection any work covered up and should the contractor refuse or neglect to comply with such a request the Executive Engineer any employ other workmen to open up the same. If the said work has been covered up in contravention of the Executive Engineer's instructions or if on being opened up, it be found not in accordance with drawings and specifications or the written instructions of the Executive Engineer the expenses of opening it and covering it up again whether done by the contractor or such other work men, shall be borne by or recovered form the contractor. If the work has not been covered up in contravention of such instructions or if on being opened up it be found to be in accordance with the drawings and specifications or the written instructions of the Executive Engineer, the expenses aforesaid shall be borne by Government and shall be added to the contract sum, provided always that in the case of foundations, or any other urgent work so opened up and requiring immediate attention the Executive Engineer shall, within reasonable time after the receipt of notice from the contractor that the work has been opened, make or cause the inspection there of to be made, and at the expiration of such time if such inspection shall not have been made, the contractor may cover up the same, and shall not be required to open it up again for inspection except at the expense of Government.

26. Defects, shrinkages, etc., after completion

26.1 Any defects, shrinkage or other faults which may appear within six months from the completion of the works arising, in the opinion of the Executive Engineer from faulty materials or workmanship not in accordance with the drawings and specifications or the instructions of the Executive Engineer shall, ;upon the directions in writing of the Executive Engineer and within such reasonable time as shall be specified therein, be amended and made good by the contractor at his own cost, unless the Executive Engineer shall decide that the contractor thought to be paid for the same at the rates agreed on such reduced or other raters, as the Executive Engineer may fix and in case of default, the Executive Engineer may employ and pay other persons to amend and make good such defects, shrinkage or other faults or damage, and all expenses consequent thereon and incidents whereto shall be borne by the contractor.

26.1. (A) The shrinkage period of six months referred to in main clause 26.1 above, will be five years in respect of all contracts for construction of original buildings either semi permanent, or permanent to ensure structural stability of the building.

(G.O. Ms. No.181 PWD 28-01-1986)

26.2. Provided that in the event of Government taking over portions of the works as and when they are completed the liability of the contractor under this clause shall extend to a period of six months (or five years as the case may be) from the date of final taking over of the work irrespective of the actual dates on which portion of the works were taken over.

27. Executive Engineer's Decision

27.1 To prevent disputes and litigation, it shall be accepted as an inseparable part of the contract that in matters regarding materials workmanship, removal of improper work, interpretation of the contract drawing and contract specifications, mode of procedure and the carrying out of the work, the decision of the Executive Engineer shall be final and binding on the contractor and in any technical question which may arise touching the contract, the Executive Engineer's decision s hall be final and conclusive.

28. Dismissal of Workmen

28.1. The contactor shall employ in and about the execution of the works only such persons as are careful, skilled and experienced in their several trades and callings and the Executive Engineer shall be at liberty to object to and request the contractor to remove from the works any person employed by the contractor in or about the execution of the works who in the opinion of the Executive Engineer misconducts himself or is incompetent or negligent in the proper performance of his duties and such persons shall not be again employed upon the works without the permission of the Executive Engineer.

D.1. GENERAL OBLIGATIONS

29. Contractor's Head Mason or agent and contractor's staff

29.1. The contractor shall in his own absence keep constantly on the works a competent Head Mason or agent and any direction or explanations given by the Executive engineer or his representatives to such Head Mason or agent shall be held to have been given to the contractor.

29.2. The contractor shall further provide all staff which is necessary for the proper supervision, execution and measurement of the work to ensure full compliance with the terms of the contract.

Government maestri or agents

30.1. The Government may be represented on the work by an agent clerk of the works, or Head Mason who is not borne on the Official list or officers and subordinates of the P.W.D. of Highways and Rural works Department. He (if appointed) shall, in the absence of the Executive Engineer, furnish the contractor with the Executive Engineer's or his representative's instruction and directions as to the progress and execution of the works and the contractor shall duly comply with such instructions and direction and shall on the written requisition of the Head Mason clerk of works or agent, stay the further progress of any portion of the works which in his judgment is being constructed with unsound or improper material or workmanship, until the opinion and determination of the Executive engineer shall be obtained thereon, but such Head Mason clerk of works or agent is to have no power whatever to order any extra works or deviation from the specifications and drawing.

E. INCLUDED IN CONTRACT RATES

31. Defining contract schedule rates.

31.1. The rate entered in a contract schedule for any class of work shall be for finished work in situ and shall include all contingent expenses whether direct construction expenses involved in the building in place in accordance with the drawings and specifications or whether they be expenses imposed by an outside authority such as a local body. Such contingent expenses shall not entitle the contactor to claim an extra in respect hereof.

32. <u>Carriage.</u> 32.1. Rates for finished work shall always include the cost of conveyance and all leads, lifts, loading unloading and stacking in the manner and at the place ordered by the officer in immediate charge of the work, unless circumstances necessity provisions for a separate schedule item, in which case for such will be specified in the tender notice or schedule.

32.2. Wherever the term 'carriage' or 'conveyance' is used in a schedule item, it shall in the absence of other schedule provisions or modifying description in the specification, be taken to include all leads, lifts, loading, unloading and stacking in uniform stacks to the satisfaction of the Executive engineer with careful attention to close packing in case of materials which are to be measured in stacks as a basis of payment for finished work.

NOTE: 1. In the case of important leads and lift as may occur in river conservancy and other such works where lifts over flood banks and long leads may be involved, it is usual to make separate schedule item provision with a specification defining the exact work to be done for each tendered rate.

NOTE: 2. Payment for carriage will ordinarily be by bulk or weight at a rate between specified places and on the basis of the method adopted in the standard schedule of rates for carriage of materials. The distances will be measured by the nearest practicable and cheapest routes, whether metalled or unmetalled road or cart tract.

32.3. When carts or vehicles of any sort are engaged by the day, the quantity of materials to be conveyed, the distance to be traveled and the number of trips to be made shall, if he considers necessary be fixed by the Executive Engineer.

32.4. The contractor is responsible for making good all loss in transporting materials entrusted to him or his agents, whether caused by wastage, breakage, theft or any other cause.

32.5. No payment shall, in any case, be made for the return trips with carts empty. Where there are loads also for the return trip the agreement rates should allow for the reduced cost thereby on each set of materials so conveyed.

Construction Plant

33.1. The contractor shall include in his tendered price and shall provide and install all necessary construction plant and shall use such methods and appliances for the performance of all the operations connected with the work embraced under the contract as will secure a satisfactory quality of work and rate of progress which in the opinion of the Executive Engineer will ensure the completion of the work within the time specified. If at any time before the commencement, or during the progress of the work, or any part of it such methods or appliances appear to the Executive Engineer to be insufficient or inappropriate for securing the guality of the work required or the said rate of progress, he may order the contractor to increase their efficiency or to improve their character, and the contractor shall comply with such orders, but the failure of the Executive Engineer to demand such increase of efficiency or improvement shall not relieve the contractor from his obligation to secure the quality of work and the rate of progress required by the contract and the contractor alone shall be responsible for the efficiency and safety of his plant, appliances and methods.

33.2. It is however, open to the Executive Engineer to lend or supply to the contractor any tools, implements, materials and machinery that the Executive Engineer may consider desirable but for any such tools, implements, materials and machinery that may be lent or supplied to contractor by Government, the contractor shall pay such deposit and hire, or purchase price as may be determined by the Executive Engineer.

All articles that may be so lent or hired to the contractor shall be returned in good serviceable condition by him to the Executive Engineer before the final bill for work is paid and any shortage or damage shall be recovered from the contractor in the final bill at such rate as may be determined by the Executive Engineer after making such allowance as he may consider suitable for fair wear and tear.

<u>34. Scaffolding instructions</u> 34. All requisite scaffolding shall be provided at the contractor's expense and shall be double, i.e., it must have two sets of upright supports. Care must be taken to ensure the safety of the workpeople and the contractor must comply with such instructions as the Executive Engineer may issue to ensure such safety. The contractor will be entirely responsible for any damage or injuries to persons or property resulting from ill erected scaffolding, defective ladders, or otherwise arising out of his default in this respect. The contractor's attention also invited to the 'safety code'.

35. Temporary structure

35.1. The contractor shall erect and maintain at his own cost temporary weather proof sheds at such places and in a manner approved by the Executive Engineer for keeping materials under cover. The contractor shall also provide and maintain at his own expenses such temporary fences, guards, bridges and roads as may be necessary fences, guards, bridges and roads as maybe necessary for the execution of his contract work or for safeguarding or accommodation the public. If the Executive Engineer shall order any departure from the arrangements made of the contractor the contractor shall comply with such order as the Executive Engineer may issue to safeguard or accommodate the public. Sheds for housing workmen shall be provided at the contractor's expense if, in opinion of the Executive Engineer, such are necessary or desirable.

36. Water and Lighting

36.1. The contractor shall pay all fees and provide water and light as required from municipal mains or other sources and shall pay all charges therefore (including storage tanks, motors, etc.,) for the use of the work and workmen unless otherwise arranged and decided on, in writing with the E.E. The water for the works shall be, so far as practicable, free from earthy vegetable or organic matter and from salts or other substances likely to interfere with the setting of matter or otherwise prove harmful to the work.

37. Sun protection, Keeping dry and pumping

37.1. The contractor shall at his own expense arrange all requisite protection of the work and materials against sun or rain effects and shall keep all portions of the work free from water to the satisfaction of the Executive Engineer and shall use his own plant for the purpose unless otherwise specifically provided in the contact specification.

38. Tools and Seigniorage

38.1. The contractor shall, unless otherwise specifically stated in the tender, notice and subsequently on this basis in the contract be responsible for the payment wherever payable of all import duties, tolls, octroi duties, seigniorage, quarry fees, etc., on all materials and articles that he may use.

38.2. The contractor shall be solely responsible for the payment of sales tax under the provision of Madras General Sales Tax Act 1939 (Madras Act IX of 1939) as in force for time being and the rates for the various items of the work shall remain unaffected by any change that may be made from time to time in the rate at which such tax is payable.

38.3. Not with standing anything contained in section 10 of the Indian Traffic act of 1894, the rates for items involving, the use or supply of articles obtained by the contractor from outside India shall remain unaffected by any changes that may be introduced in custom duties.

NOTE:- For works carried out on behalf of the Government of India, Seigniorage fees, etc., referred to in this clause will have to be levied in every case.

38.4. No seigniorage shall be charged where due for materials quarried from the P.W.D. or other Government quarries Assistance as necessary will be given to the contractor by the department to obtain access to quarries approved by the Executive Engineer. No plot rent shall be charged for materials stacked on the government land during the course of construction provided all such materials or removed within one month after the work is completed.

38.5. Seigniorage charges due for use of private quarries and private land shall be paid by the contractor.

38.6. The contractor shall form his own approach road to the work site for which no extra will be due to him. On completion 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 through out the period of the contract.

39. Setting out works

39.1. The contractor shall be responsible for the true and proper setting out of the works and for the correctness of the position levels, dimensions and alignment of all parts of the works and for the provision of all materials, staff and labour in connection therewith.

40. Clearing up during progress and for delivery.

40.1. All rubbish shall be burnt or removed form the site, as it accumulates. All floors, stairs, landing windows, surface and soil drains shall be cleaned down and put in a thoroughly complete clean, sound and workman like state to the satisfaction of the Executive Engineer before the work is finally handed over all rubbish and surplus materials not required by the Executive Engineer having first been removed by the contractor. The contractor shall give notice in writing to the Executive Engineer when the work is so ready to be handed over and shall be responsible for its maintenance until it is taken over by the Executive Engineer.

F. RESPONSIBLILITIES AND LIABILITIES OF THE CONTRACTOR

41. Observance of laws, local regulations and notices, attachements.

41.1. The contractor shall conform to the regulations and by laws of any local authority and or of any water or lighting companies with those systems the structure is proposed to be connected and shall before making any variations from the drawings or specification that may be necessitated by so

conforming, give to the Executive engineer written notice, specifying the variations proposed to be made and the reasons for making them and apply for instructions, thereon. In case the contractor shall not receive such instruction within seven days he shall proceed with the work conforming to the provisions regulating or by-lay in question and any variation in the drawing or specifications so necessitated shall be dealt with under clause 59.

41.2. The contractor shall give all notices required by the said Act. Regulation or by-laws and pay all fees in connection therewith unless otherwise arranged and decided on in writing with the Executive Engineer. He shall also ensure that no attachments are made against materials of work forming part of or for the use of the contract in every case referred to in this clause the contractor shall protect and identify Government against any claim or Liability arising form or based on the violation of any such law, ordinance, regulation order, decree or attachment whether by himself or by his employees.

42. Accidents - Hoarding - Lighting observations - Watchman

42.1. When excavations have been made or obstacles have been put in public thorough fares or in places where there is any likelihood of accidents, the contractor shall comply with any requirement of law on the subject and shall provide suitable hoarding lighting and watchmen as necessary.

42.2. It shall be the contractor's sole responsibility to protect the public and his employees against accident from any cause and he shall indemnify Government against any claims for damages for injury to person or property, resulting from any such accident and shall where the provisions of the workmen's Compensation Act apply take steps to properly insure against any claims there under.

42.3. On the occurrence of accident which results in the death of any of the workmen employed by the contractor or which is so serious as to be likely to result in the death of any such workmen, the contractor shall, within 24 hours of the happening of such accident, intimate in writing to the concerned section officer of the Department the fact of such accident. The contractor shall indemnify Government against all loss or damage sustained by Government resulting directly or indirectly from his failure to give intimation in the manner aforesaid including the penalties of fines if any payable by Government as a consequence of Government's failure to give notice under the workmen's Compensation Act or otherwise conform to the provisions of the said Act in regard to such accident.

42.4. In the event of an accident in respect of which compensation may become payable under the Workmen's compensation Act VIII of 1923 whether by the contractor or by the Government as principal it shall be lawful for the Executive Engineer to retain out of money due and payable to the contractor such sum or sums of money as may, in the opinion of the said Executive Engineer be sufficient to meet such liability. The opinion of the Executive Engineer shall be final in regard to all matters arising under this clause.

42.5. The contractor shall indemnify Government from and against all claims and proceedings for or on account of infringement of any patent rights, design, trademark, or name or other protected rights in respect of any constructional plant, machine work or materials used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, costs, charges and expenses what so ever in respect thereof in relation thereto.

42.6. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor shall comply with or cause to be complied with all the rules framed by the Government from time to time for the provision of health and sanitary arrangements to workers employed by P.W.D. and Highways and Rural works Department and their contractors (vide appendix) in case the contractor fails to make arrangements and provide necessary facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs-incurred in that behalf from the contractor.

42.7. In respect of all labour directly or indirectly employed in the works for the performance of the contractor's part of this agreement, the contractor at his own expense shall arrange for the safety provisions as per 'Safety Code' framed from time to time and shall at his own expense provide for all facilities in connection therewith. In case the contractor fails to make arrangements and provide facilities as aforesaid the Executive Engineer shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor.

42.8. In respect of all labour directly or indirectly employed in the work for the performance of the

contractors part of this agreement the contractor shall arrange to furnish in triplicate particular's for each work in the proforma vide Appendix XXXVIII by the end of every month to the Executive Engineer in charge of the work.

43. Blasting

43.1. Blasting executed by contractors in connection with Government works shall be carries out in the manner described under blasting operation – instructions to contractor of the TNBP.

44. Protection of Existing and Adjoining premises

44. The contract is to protect the whole of the adjoining and where necessary, the existing premises and all works and all fittings to all buildings on the adjoining the site against the structural and decorative damages caused by the execution of these works and make good in all respects all such damages done or occurring to the same, and leave such reinstatement in perfect order. He is also to make good any damage done in the execution of the work to existing public or to private footways or road-ways.

45. Permit other workmen – Co-operation- Afford Facilities.

45.1. The Executive Engineer shall have full power to send workmen upon the premises to execute fittings and other works not included in the contract, for whose operations the contractor is to afford every reasonable facility during ordinary working hours, provided that such operations shall be carried on in such a manner as not to impede the progress of the work included in the contract, but the contractor is not to be responsible for any damages which may happen to or be occasioned by any such fittings or other works, provided that the complies with the Executive Engineer's instructions in connections there with, and provided that the damages is not caused by himself or his workmen.

45.2. The contractor shall, at all times co-operate assist attend on, and afford facilities for such specialists as may be employed by the Executive Engineer on other works in connection with the building, allowing them free of charge the use of all plant, light and water installed in the work. The contractor shall also cause such special work or protect it as instructed to avoid injury during progress of the works. For failure so to protect, the contractor must make good any damage caused.

45.3. When two or more contractors are engaged on installation or construction work in the same vicinity the Executive Engineer shall have authority to direct the manner in which each shall conduct the work so far as it affects other contractors.

46. Holes for water services, gas, electrical and Sanitary fittings.

46.1. The contractor shall leave all holes in masonry and floors for the insertion of water services, gas and electrical connections and sanitary fittings in the exact positions indicated by the Executive Engineer during the progress of the work. These holes must be properly built up in a workman like manner at the Contractor's cost, as soon as the fittings have been installed in cases, where the installations are made during the constructions of the building and where in the opinion of the Executive Engineer, delays in settlement of accounts will not thereby occur.

47. Contractor's risk and insurance

47.1. The work executed by the contractor under the contract shall be maintained at the contractor's risk until the work is taken over by the Executive Engineer. The Government shall not be liable to pay for any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earthquakes or other convulsions of nature and all other natural calamities and risks arising out of acts of god during such period and the option whether to take insurance coverage or not to cover and such loss or damages is left to the contractor.

47.2. Provided however, that the contractor, shall not be liable for all or any loss or damages occasioned by or arising out of acts of foreign enemies invasion hostilities or warlike operations (before or after declaration of war) rebellion, military or usurped power.

48.Holidays

48.1. Subject to any provision to the contrary contained in the contract none of the permanent work shall save as hereinafter provided be carried on during the night or on Sundays and other holidays without the permission in writing the Executive Engineer or of the officer in charge of the work, save when the work is unavoidable or absolutely necessary for the safety of life or property or for the safety of the works in which case the contractor shall immediately advise the Executive Engineer.

G. MISCELLANEOUS

49. Sand and Gravel

49.1. The contractor shall not make any excavations upon the site for the purpose of obtaining gravel, sand or soil other than shown or implied by the drawings, except with the previous permission of the Executive Engineer.

50. Old curiosities

50.1. All old curiosities, relics, coins, minerals, etc., found in excavating or pulling down, shall be the property of the Government and be handed over to the Executive Engineer. Should any ancient masonry, or other old work of interest be opened up the Executive Engineer's attention shall be called to the same before demolition or removal.

51. Assignment or sub-letting

51.1. The contractor shall not without the written consent of the Executive Engineer assign the contract nor sub-let any portion of the same. Ordinarily no sub-letting will be permitted, but in case such should be permitted by the Executive Engineer, it shall in no way free the contractor from any of responsibilities under any clause of these " conditions of contract" or of the "Articles of Agreement".

52. Specialists

52.1. The Executive Engineer shall, during the progress of the work have powers to select, nominate or recommend tradesmen or specialists to supply material or execute such portion of the work as he may consider desirable in the interests of the Government.

53. Ratification of the orders of the Executive Engineer

53.1. should the acceptance of the tenders be beyond the authorized powers of the Executive Engineer as laid down the P.W.D. code, the orders and decisions of such Executive Engineer with regard to

a) extension of time for completing the contractor will be subject to the ratification of the General Manager (Tech), TAHDCO for all works for which tenders were accepted by the Engineers of TAHDCO including General Manager (Tech), TAHDCO / Board of TAHDCO and government.

b) the termination of contract or of employment of specialists for certain portion of the works will be subject to the ratification of the General Manager (Tech), TAHDCO for all works for which tenders were accepted by Engineers of TAHDCO / Board of TAHDCO and Government.

54. Order Book

54.1. An order book shall be kept at the TAHDCO office on the site of the work. As far as possible, all orders regarding the work are to be entered in this book All entries shall be signed and dated by the TAHDCO officer in direct charge of the work any by the contractor or by his representative. In important cases, the Executive Engineer or the General Manager (Tech), TAHDCO will countersign the entries, which have been made. The order book shall not be removed from the work except with the written permission of the Executive Engineer.

54.2. No photographs of the site or of the work or any part thereof shall be taken except with the permission in writing of the Executive Engineer and no such photographs shall be published or otherwise circulated without the permission of the General Manager (Tech), TAHDCO.

H. DATE OF COMMENCEMENT, COMPLETION, DELAYS EXTENSION, SUSPENSION OF WORK AND FORFEITURE

55. Date of commencement and completion

55.1. On notification of possession of the site (or premises) being given to the contractor by letter registered for acknowledgements as provided in clause 9.1 para, he shall forthwith begin the work, shall regularly and continually proceed with them, and shall complete the same (except for painting or other work which in the opinion of the Executive Engineer, it may be desirable to delay) by the date of completion, as defined in the "Articles of Agreement" subject nevertheless, to the provisions of extension of time mentioned in the next clause. The contractor shall under no

Circumstances be entitled to claim any damages from TAHDCO if he incurs any expenses or liabilities to payment under the contract before the date of commencement defined above. The contractor shall have the right to withdraw from the contract and obtain refund of his security deposit if such intimation of handing over the site is delayed by more than two months from the date of acceptance of the agreement by competent authority.

56. Delay and extension of time

56.1.No claim for compensation on account of delay or hindrances to the work from any cause whatever shall lie except as hereinafter defined.

Reasonable extension of time will be allowed by the Executive Engineer or by the officer competent to sanction the extension for unavailable delays, such as may result from causes which in the opinion of the Executive Engineer, are undoubtedly beyond the control of the contractor. The Executive Engineer shall assess the period of delay or hindrance caused by any written instruction issued by him at twenty five percent in excess of the actual working period so lost. If at any time the Executive Engineer is of the opinion that there has been avoidable delays and the contractor fails to maintain the rate of progress specified in the articles of agreement, it shall be lawful for the Executive Engineer to impose penalty or order forfeiture from the deposit and sanction the extension of time for such delays, provided however, the penalty and forfeiture shall be governed as per clause 57.2 and 57.3.

56.2. In the event of the Executive Engineer failing to issue necessary instructions and thereby causing delay and hindrance to the contractor the latter shall have the right to claim an assessment of such delay by the General Manager (Tech), TAHDCO. The contractor shall lodge in writing to the Executive Engineer a statement of claim for any delay or hindrance referred to above within fourteen days from its commencement otherwise no extension of time will be allowed.

56.3. Whenever, authorised alternations or additions made during the progress of the work are of such nature in then opinion of the Executive Engineer as to justify an extension of time in consequence thereof such extension of time will be granted in writing by the Executive Engineer or other competent authority when ordering such alterations or additions.

Amendment for inclusion of additional clauses 56-4, 56-5 and 56-6 to the General condition contract T.N.B.P. Vol. III

56.4. In case where the Government under the terms of the contract with the contractor are to liable to supply any materials, articles or things to the contractor for the performance by him of his part of the contract, the Executive Engineer, may at his absolute discretion extend the time within which such materials, articles or things may be supplied by the Government and the Government may supply to the contractor such materials, articles or things within the time so extended with out any liability on their part to compensate the contractor by reason of the extension of time for he supply of the materials, articles or things.

56.5. In cases where the Government under the terms of the contract are liable to supply any materials, articles or things to the contractor for the performance by him of his part of the contract and the Government for any reason are unable to supply such materials, articles or things either with in the time specified in the contract within the time extended under clauses 56-4. The Executive Engineer, may at his discretion or at the request of the contractor, determine the whole or any part of the contract which cannot be performed by reason of the failure to supply such materials, articles or things and the contractor shall not be entitled to claim any damages or compensation in respect of such determination. The contractor shall, however be paid the value of the work already done by him and the cost of materials, articles or things if any collected by

him up to the date of such determination and left unused on the work spot (which shall be taken over by the Executive Engineer) either at the contract rates or at values deduced from the through rates included in the contract. When the contract is determined at the discretion of the Executive Engineer, he shall give notice is writing to the contractor and the decision of the Executive Engineer to determine the contract shall be final and binding on the contractor. The expression "Through rates" means the rate for the finished items of work or the all in rates, that is to say, the rates for finished items of work inclusive of the cost of materials and labour.

56.6. If, at any time after the acceptance of the tender, the Government shall for any reason what so ever not required the whole or any part of the works to the carried out the Executive Engineer shall give notice in writing of the fact to the contractor, who shall have no claim to any compensation or other payments what so ever on account of any profit or advantage he might have derived from the execution of the work in full but which he didn't derive in consequence of the termination of the works.

He shall be paid at contract rates, for the work executed by him including any additional works such as clearing of site etc.that may be rendered necessary by such termination. He shall also be allowed a reasonable payment as decided by the authority next higher rank to the authority which accepted the tender, for any expense incurred by him on account of labour and materials, articles or things collected, but which could not utilised on the works as verified by the Executive Engineer. Such decision shall be final and binding on both the parties and shall not be subject to arbitration under clause 69.

Note:

i) The clause were originally numbered as 59-A, 59-B and 59-C, and approved in G.O. ms. No.564 PW dated22.02.1960. But found to be omitted while approving over all amendments to general conditions to contract in G.O. Ms. NO.2659 PW dated 23.12.1970. The omission was brought to the notice of Government in CE (GL)'s letter dated 07.04.1982 and the above clauses were ordered to be included as clause 56.4, 56.5 and 56.6 in Govt.'s letter No.2163/Y2/95 -4 PWD., dated 19.09.1996 communicated in CE (GI)'s memo No.CTO/A/470.70 dated 08.10.1996.

ii) The clause as approved by the Government may be pasted as an amendment slip to the General conditions of the contract appended to T.N.B.P. volume-II.

iii) The above clauses may be added as special conditions while issuing tender schedules for state Government funded or deposit workers to avoid any objections from the contractors at a later stage.

57. Delays in commencement or progress neglect of work or suspension of works by the contractor and forfeiture of Earnest Money, Security Deposit and with held amount

57.1. Time shall be considered as the essence of the contractor. If at any time the Executive Engineer shall be of the opinion that contractor is delaying commencement of the work, neglecting or delaying the progress of work as defined in the tabular statement, "Rate of Progress" in the Article of Agreement or the contractor fails to maintain the Rate of Progress in the Articles of Agreement plus any extension of time or the contractor shall suspend the works, or sublet the work or a portion thereof with out the sanction of the Executive Engineer or violates any of the provisions of the contract the Executive Engineer shall so advise the contractor and at

the same time demand compliance. If the contractor neglects to comply with such demand within seven days after receipt of such notice, it shall then or any time be lawful for the Executive Engineer to impose a penalty or forfeiture on this contractor from the or to determine the contract.

57.2. The penalty or forfeiture refered to in clause 57.1 shall not exceed 5% of the value of the work executed and its imposed in cases where the contractor is allowed to proceed with the whole or part and complete the whole or such part of the works. The penalty or forfeiture imposed by the Executive Engineer under this clause is however subject to modification or waiver at the absolute discretion of authority higher in rank than the Executive Engineer.

57.3. It shall be a further right of the Executive Engineer to give any part of the work to any other contractor at his discretion or have it done departmentally in order to maintain the rate of progress and the contract shall then be determined for only that portion of the work given to the contractor or done departmentally. The forfeiture under clause 57.2 will in these circumstances be applied any

excess expenditure incurred on the account shall be recovered from the original contractor.

57.4. Determination of the contract referred to in clause 57.1. shall carry with it the forfeiture of the Security deposit. After determining the contract, the Executive Engineer shall have the right to give any part of the work to any other contractor in the unexecuted portion of contract, in which case any expenses which may be incurred in excess of such amount which would have been paid to the original contractor if the whole work had been executed by him shall be borne and paid by the original contractor and may be deducted from any money due to him by Government under this contract or any other amount what so ever Provided also that if the expenses incurred by the Government are less than the amount payable to the contractor at his agreement rates the difference will not be paid to the contractor.

57.5. In the event of anyone of the above clauses being adopted by the executive Engineer, the contractor shall have no compensation for any loss sustained by him by reason of his having purchased or processed any materials or entered into any engagements or made any advances on account or with a view to the execution of the work or the performance of contract, and in case action is taken under any of the provisions aforesaid, the contractor shall not be entitled to be paid any sum for any work actually performed under the contract unless and until the Executive Engineer has certified in writing the performance of such work and the value payable in respect thereof and he shall only be entitled to be paid the value of certified.

57.6. In the event of the Executive Engineer putting in force all or any of the powers vested in him under the clause 57.4 he may if he so desires after giving a notice in writing to the contractor take position of the works and site and such plants and materials thereon (or any ground contiguous there to) and all such plant and materials as above mentioned shall thereupon be at the disposal of Government absolutely for the purpose of completing the work. After such notice shall have been given the contractor shall not be at liberty to remove from the site of works or from the ground contiguous thereto any plant or materials belonging to him which shall have been placed thereon for the purpose of the above work. Government shall not be liable to make any payment to the contractor on account of use of such plant for the completion of the works under the provisions herein before contained. On taking possession of the materials and stores belonging to the contractor or procured by the contractor and intended to be used for the execution of the work or any part thereof the contractor shall be paid for the same in account, at the contract rates, to be certified there of shall be paid for the same in account, at the contract rates, to be certified there of shall be final. Otherwise the Government may give notice in writing to the contractor to remove any of his plant or materials from the site and not required for completion of the works, if such plant and or materials are not removed within fourteen days after notice and have been so given, Government may remove and s ell the same holding the proceeds less the cost of removal and sale, to the credit of the contractor. The certificate of the Executive Engineer as to expense of any such removal and sale, shall be final and hinting on the contractor.

I. Particulars of payment

58. Payment on lump sum basis or by final measurement at unit prices.

58.1. Final measurements need not be taken unless either the contractor or the Executive Engineer claims extras to or deductions from the quantities of schedule-A.

58.2. In case final measurements are claimed, they shall be taken only for those items for which either the contractor or the Executive Engineer claims final measurements and the quantities of the remaining items in schedule-A shall be accepted as correct. The lump sum amount mentioned in the agreement will then be varied by adding thereto or deducting there from as the case may be, the difference (if any) between the amounts mentioned in Schedule-A for such items and the amounts arrived at by calculation at contract rates based on the revised quantities for the same, obtained by the final measurement aforesaid.

58.3. It shall be accepted as a condition of the contract that the payment of the final bill to the contractor less the withheld amounts and his acceptance thereof shall constitute a full and absolute release of Government from all further claims by the contractor under the contract.

59. Payment for additions and deductions for omissions

59.1. No authorized variation shall vitiate the contract, but additions and omissions shall be measured up and dealt with in accordance with clause 58.2.

59.2. If there is not rate in Schedule A for additional work ordered to be carried out by the Executive Engineer, then prior to execution of the additional work, a rate for the additional work, shall be worked out in accordance with the methods indicated in 59.3. and with the rate agreed upon a supplemental agreement shall be entered in the proper departmental form signed and dated by the contractor and the Executive Engineer and or any other officer for the time being authorised to accept such agreement and supplemental agreement shall on such acceptance form part of the original agreement. A copy of the supplemental slip shall be given to the contractor.

59.3.1. The rate for additional works shall be derived from the rate for similar items of work in the accepted agreement.

59.3.2. In the case of works for which supplemental agreement is to be entered into during the period when the schedule of rates has not changed from the date of execution of the original agreement then the rates for supplemental agreements may be the prevailing schedule of rates plus or minus tender premium in case the rates cannot be derived from the items in the original agreement. In other case, where the schedule of rates has changed in the intervening period, the rates prevailing as per the schedule of rates at the time of execution of supplemental items will be adopted with no tender premium over this rate.

59.3.3. If the rate for a particular item of work is not in the schedule of rates, the prevailing market rate when the work was done shall be adopted.

59.3.4. If the rates cannot be determined as above, the rates shall be fixed on the cost of labour and materials plus 10 percent thereon, provided the vouchers shall have been delivered to the Executive Engineer within 7 days after such work is completed. If the Executive Engineer considers that the vouchers are unduly high, the Executive Engineer can valuate the work as reasonable and fair and make payment if the value of payment is less than Rs.1,000. If the value of additional payment exceeds Rs.1, 000 the contractor shall have the right to submit the matter to arbitration.

60. No payment for unsetenced extras

60.1. It shall be distinctly understood that no payment whatever will be made to the contractor for variations by way of extras, in cases where such variations have been made without the written sanction of the Executive Engineer.

61. Accounts Receipts and vouchers

The contractor shall at any time upon the request of the Executive Engineer furnish him with all invoices account, receipts and other vouchers that he may require in connection with the contract.

62. Fraud, willful neglect or default

62.1. No final or other certificate of payment or of completion, acceptance or settlement of account shall, in any circumstances, relieve the contractor from his liability for any fraud, or willful neglect or default in the execution of the contract or any willful or un authorised deviations from drawings, specifications, instructions and direction for the time being binding upon him.

63. Unfixed materials

63.1. No payment or advance will be made for unfixed materials when the rates are finished work in situ.

64. Payment and Certificate

64.1. payments will be made to the contractor under the certificates to be issued at reasonably frequent interval by the Executive Engineer or the Sub-Divisional Officer, within 14 days of the date of each certificate an intermediate payment will be made by the Executive Engineer or the Sub-Division Officer of a sum equal to 95 percent of the value of work, as so certified and the balance of 5 percent of total value will be withheld and retained as security for the due fulfillment of the contract. under the certificate to be issued by the Executive Engineer or Sub-Divisional Officer on the completion of the entire works, the contractor will receive the final payment of all the money due or payable to him under or by virtue of the contract except security deposit and the withheld amount equal to 2 ½ percent of the total value of the work done provided there is no recovery from or forfeiture by the contractor to be made under clause 57. The amount with held from the final bill will be retained under 'Deposits' and paid to the contractor together with the Security Deposit after six months reckoned from the date of completion of work or as soon after six months reckoned from the date of completion of six

moths as all defects shall have been made good according to the true-intent and meaning there of whichever shall last happen. In the event the final bill remains unpaid even after the period of six months aforesaid, the Executive Engineer shall refund the security deposit which includes the E.M.D. and also the with held amount on a separate bill if requested for by the contractor in writing. No certificate of Executive Engineer or Sub-Divisional Officer shall be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which it relates nor shall it relieve the contractor from his liability to make good defects and provided by the contract. The contractor when applying of a certificate, shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract schedule-A to the satisfaction of the Executive Engineer, to enable the Executive Engineer or the Sub-Divisional Officer shall be issued within fourteen days of the application. No application for a certificate shall be made within fourteen days of a previous application.

64.1. (i) Not with standing the above clause, the with held amount of 2½% from the final bill in respect of contract for construction of original building, will be retained by the Government for a total period of one year in lieu of six months period referred to in clause 64-1 above and will be released after the expiry of one years period on execution an indemnity bond by the contractor to the satisfaction of the Executive Engineer for a further period of four years to ensure structural stability of the building under clause 26.1.A.

64.1.(ii) Retention Amount :

(a) "In Addition to the security deposit, retention amount shall be deducted from the running account bills, a sum equivalent to 5% (Five percent) of the total value (including the Goods and Service Tax (GST)Amount for all running account bill) of each bill as retention money".

(b) " Out of the 5% retention amount , $2^{1/2}$ % (Two and Half Percent) of the total value of the work so far executed will be released to the contractor on payment of final bill , and in the final bill, the Goods and Services Tax (GST) amount retained in previous payment has to be released to the contractor without interest."

(c) "The balance 2^{1/2} % will be retained for a period of one year reckoned from the date of completion of the work, as all defects shall have been made good according to the true intent and meaning hereof, whichever shall happen last."

(d) "The retention money of 2^{1/2} % including GST (Two and a half Percent) of the total value of contract after deducting any amount due to the Departmental, shall be refunded to the Bidder without interest after the defects liabilities attached to the contract is over."

64.1.(iii) Payment :

(a) For every bill, 12% of GST will be paid to the contractor based on the value of work done for Construction by the Employer. After the payment including 12 % of GST, the Contractor should pay the GST Amount to Government through his GST Registration No. Also the contractor needs to submit the Material purchase bill mentioning the name of the work /s in the package and GST No. to the Employer.

(b)First Bill Payment:

"At the time of payment for first running account bill, the contractor should **Produce** the GST paid details on goods (Materials) to the Employer for ITC."

(c) Intermediate Bill Payment:

"At the time of payment for next running account bills, the contractor should produce the GST paid details of services up to previous bill payment (i.e. GST paid detail for the previous work bill) along with Input Tax Credit (ITC) availed at the time of payment of intermediate bill to the employer."

(d)Final Bill Payment:

"The Contractor should produce the GST paid details for all the materials used for construction work and GST paid details of services for the upto previous payment (i.e GST paid detail for the upto previous work bill) to the Employer along with Input Tax Credit (ITC) availed at the time of payment of final bill to the Employer.

(e) Submission of GST paid details of Final Bill

" The GST paid details for the final work bill payment of construction work to be Submitted by the contractor to the employer in few days after getting Payment."

64.2there are complaints from the labour Department about non-payment of wages to the labourers employed by the Contractor for the execution of works under agreement, the Executive Engineer, shall have full powers to withhold the bills claimed by the contractor pending clearance certificate from the labour Department and to act as per the direction given by the labour Department.

65. Interest on money due to the contractor

65.1. No omission by the Executive Engineer or the Sub-Divisional Officer to pay the amount due upon certificates shall vitiate or make void the contract not shall the contractor be entitled to interest upon any guarantee fund or payments in harrier, nor upon any balance which may, on the final settlement of his accounts, be found to be due to him.

65.2. Whenever the with held amount reaches Rs.1,000 or a multiple thereof, the contractor may, at his option, deposit with the Executive Engineer an equal amount in sums of Rs.1,000 or a multiple thereof, in any of forms of interest bearing securities recognized for the purpose by the T.N. Public Works Account Code and subject of the provisions thereof contained in which case the equivalent withheld amount shall be paid to him forth with. The Contractor will be permitted to exercise the option in this clause, subject only to the condition that the rates of progress contained in the Articles of Agreement in properly maintained.

66. Acceptance of final measurements

66.1. The contractor agrees that before payment the final bill shall be made on the contract, he will sign and deliver to the Executive Engineer either in the measurement book or otherwise as demanded a valid release and discharge from any and all claims and demands whatsoever for all matters arising out of or connected with the contract and also produce a certificate from the Incomes Tax Authorities that all income tax payable by him unto-date has been duly paid provided that nothing in this clause shall discharge or release the contractor form his liabilities under the contract. It is further expressly agreed that Executive Engineer in supplying the final measurement certificated need not be bound by the proceeding measurements and payment. The final measurements, if any of the Executive Engineer shall be final conclusive and binding on the contractor.

67. Recovery of money from contractor in certain cases

67.1. In every case in which provision is made for recovery of money from the contractor, Government shall be entitled to retain or deduct the amount thereof from any money, that may be due or may become due to the contractor under these presents and or under any other contract or contracts or any other account what so ever.

67.2. Recovery under Revenue Recovery Act.

Whenever any amount has to be paid by the contractor in view of determination of the contract by virtue of clause 57 or any amount that may be due from the contractor is under these presents and the contractor is not responding to the demands for the payment of the said amount, then the Government shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act.

68. Contractor dying becoming insolvent insane or imprisoned

68.1. In the event of the death or insanity or insolvency or imprisonment of the contractor, or where the contractor being a partnership or firm becomes dissolved or being a corporation goes into liquidation voluntary or otherwise, the contract may at the option of the Executive Engineer, be terminated by notice in writing posted at the site of the works and advertised in one issue of the local district Gazette and all accepted and acceptable works shall forthwith be measured up and paid for at the rates provided in the contract schedule where such apply, or otherwise by the most recent schedule of rates of the division approved by competent authority to the person or persons entitled to receive and give a discharge for the payment

J. SETTLEMENT OF DISPUTES 69. <u>Arbitrations</u>

69.1. In case of any dispute or difference between the parties to the contract either during the progress or after the completion of the works or after the determination, abandonment or breach of the contract, or as to any matter or thing arising there under except as to the matters left to the sole discretion of the Executive Engineer under clauses 18, 20, 25.3, 27.1, 34, 35 and 37 of "General conditions of contract' or as to the with holdin g by the Executive Engineer of payment of any bill to which the contract may claim to be entitled, then either party shall forthwith give to the other notice of such dispute for difference and such dispute or difference, shall or be and is hereby referred to the superintending Engineer of the nominated circle, mentioned in 'Articles of Agreement' hereinafter called the Arbitrator in case where the value of claim in less than and up to Rs.50,000. The arbitrator shall give detailed reasons in their awards for their findings and conclusion. Subject as aforesaid to the provisions of the arbitration Act, 1940, or any statutory modification or reenactment thereof and the rules made there under and for the time being in force shall apply to the Arbitration Proceeding under this clause. Upon every and any such reference, the cost of and incidental to the reference and award respectively shall be discretion of the arbitrator, subject to the condition that the amount of such costs to be awarded to either partly shall not, in respect of a monetary claim exceed the percentage set out below of any such award irrespective of the actual fees, cost and expense incurred by either partly provided that where a monetary claim is disallowed in full the said percentage shall be calculated on the amount of the claim. The arbitrator may determine the amount of the costs to be awarded or direct the same to be taxed as between solicitor and client or as party and party shall direct by whom and to whom and in what manner the same shall be borne and paid.

The percentage above referred to in this clause are 5% on any such monetary award which does not exceed Rs.10,000/- 3% on the next Rs.40,000 or any part thereof provided that the government shall not be liable to any claim in respect of any such dispute or difference until the liability and the amount thereof shall have been referred to and decided by the arbitrator.

69.2. The fees for Arbitrators shall be levied based on the value of claims referred to for arbitration. The fees shall be calculated at 5% of the first Rs.10,000/- at 3% of the next Rs.40,000/-.

69.3. In cases where the value of claim is more than Rs.50,000/- the parties will seek remedy through the competent civil court.

70. Bills of Quantities :

The rates and prices tendered in the priced bill of quantities shall, except in so far as it is otherwise provided under the contract, include all constructional plant, labour, supervision, materials, erection, maintainance, insurance, profit, taxes and duties (except GST), together with all general risks, liabilities and obligations set out in the contract. The GST amount will be calculated at 12% of sum of the bid value (excluding GST) quoted by the bidder for construction cost specified in the BoQ. The BoQ should include GST (Goods and Services Tax) Amount", shall be substituted.

71. Goods and Service Tax(GST) Registration and Addition of GST in Bills:

The Contractor should be required to indicate their GST registration number under the Goods and Services Tax(GST) Act 2017 in the tender form. The Central Goods and Services (CGST) Act 2017, the Intregrated Goods and Services (IGST) Act 2017 and the Tamilnadu Goods and Service (TNGST) Act 2017 have been enacted and enforced from 01.07.2017. Under the new tax regime, GST (comprising CGST, SGST and IGST) on works contracts for Governmet work was finally notified at 12 percent. As per the Tamilnadu Goods and Services (TNGST) Act 2017, with effect from 01.07.2017.

APPENDIX NO.1

PUBLICWORKS DEPARTMENTSAFETYCODE

General Rules as to scaffolds.

1. Suitable scaffolds shall be provided for workman for all works that cannot be safely done from a ladder or by other. When a ladder is used an extra Mazdoor shall be engaged for holding the ladder and the ladder shall be given an inclination not steeper than 0.25 to I (0.25 Horizontal to I vertical). When the ladder is used for carrying materials as well, suitable foot holds and hand holds shall be provided on the ladder.

2. A scaffold shall not be constructed, taken down or substantially altered, except (a)under the supervision of competent and responsible person; and (b) as for as possible by competent workers possessing adequate experience in such work.

3. All scaffolds and appliance connected therewith and all ladders shall...

- a) be of sound material
- b) be of adequate strength having regard to the load strain to which they will be subjected and
- c) be maintained in proper condition.

4. Scaffolding or staging more than 3.5 meters above the ground or floor shall have a guard rail properly attached, bolbraced and otherwise secured at least 0 meters above the floor or platform of such scaffolding or staging and extending along the entire length of the outside and ends thereof with only such opening as may be necessary for delivery of materials. Such scaffolding or staging shall be so fastened as to prevent it from swaying from the building or structure.

5. Scaffolds shall be so constructed that no part thereof can be displaced in consequence of normal use.

6. Scaffolds shall not be overloaded and so for as practicable the load shall be eventually distributed.

7. Before installing lifting gear of scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.

8. Working platform, gangways and stairways should be so constructed that no part there can save unduly or unequally. If the height or the platform or the gangway or the stairways is more than 3.5 meters above ground level or floor level they should be closely boarded should have adequate width and should be suitably fenced as described in (4 above)

9. Every opening in the floor of a building or in a working platform shall be provided with suitable fencing or railing for a minimum height of 0.9 meter to prevent the fall of persons or material.

10.Safe means of access shall be provided to all working platforms and other working places. Every ladder shall securely fixed. No portable single ladder shall be over 9 meters in length while the width between side rails rung ladder shall in no case be less than 30cm for ladder up to and including 3 meters in length. For longer ladders this width should be increased at least 20mm for each additional meters of length uniform step spacing should not excised 30 cm.

Adequate precautions should be taken to prevent danger from electrical equipment. No materials on the site of work shall be so stacked or placed as to cause danger or inconvenience to any person or the public. The Contractor shall provide all necessary fencing and lights to protect the public from accidents and shall bound to bear the expenses of the defense of every suit, action or other proceedings at law that may be brought by any persons for injury sustained owing to neglect of the above precautions and to pay any damages and cost which may be awarded in any such suit, action or proceedings to any such persons or which may with the consent of the contractor be paid to compromise any claim by any such person.

Excavation and trenching

11. Trenches - 1.2 meters or more in depth shall at all times be supplied with at least one ladder for each 30 meters in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 0.8 meters above the surface of the ground. The sides of the trenches which are 1.5 meters or more in depth shall be stepped back to give suitable slope or hold securely by timber bracing,

so as to avoid the danger of sides to collapse.

12. Demolition – Before any demolition is commenced and also during the process of the work.

13. All roads and open areas adjacent to the work site shall either be closed or suitably protected. a) No electric cable or apparatus which is liable to be a source of danger over a cable or apparatus used by the operator shall remain electrically charged.

b) All practical steps shall be taken to prevent danger to persons employed from risk or fire or explosion or flooding. No floor, roof or other part of the building shall be so overloaded with debris or materials as to render it unsafe.

14. All necessary personal safely equipment as considered adequate by the Executive Engineer shall be kept available for the use of the person employed on the site and maintained in a condition suitable for immediate use and the contractor should take adequate steps to ensure proper use of equipment by those concerned.

- a) Workers employed on mixing asphaltic materials cement and lime mortars shall be provided with protective footwear and protective goggles.
- b) Those engaged in white-washing and mining or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective gaggles.
- c) Those engaged in welding works shall have protective goggles and protective clothing and seated at sufficiently safe intervals.
- Those engaged in welding works shall be provided with welder's protective sightings.
- e) When workers are employed in sewers and man holes which are in use, the contractor shall ensure that the manholes covers are opened and are ventilated at least for an hour before the workers are allowed to get into the manholes, and manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.
- f) The contractor shall not employ med below the age of 18 years and women on the work of painting with products containing lead in any form. Wherever men above the age of 18 are employed on the work of lead painting the following precautions shall be taken.

i) No paint containing lead and lead products shall be used except in the form of paste or ready-made paint.

ii) Suitable face masks should be supplied for use be the workers when paint is applied in the form of spray or a surface having lead paint dry rubbed and scrapped.

iii) Overall shall be supplied by the contractors to work-men and adequate facilities shall provided or enable the working painters to wash during the cessation of work.

iv) When workers are employed in dangerous occupations like work with hot bitumen, drilling operations etc., which are likely to prove dangerous resulting in physical damage and causality, adequate protection often workers, should be provided.

15. When the work is done near any place where there is risk of drawning all necessary equipments should be provide and kept ready for use and all necessary steps taken for prompt rescue of any person in danger and adequate provision should be made for prompt first aid treatments of all injuries likely to be sustained during the course of the works.

16. a) Hoisting machines and tackle including their attachment anchorages and supports shall be good mechanical construction sound materials and adequate strength and free from patent defect and shall be kept in good repair and in good working order. Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.

b) Every crane driver or hoisting appliance operator shall be properly qualified and no person under the age of 21 years should be in control of any hoisting machine, including the scaffold which or give signals to the operator.

c) In the case of every hoisting machine and of every chain ring hook shackle level and pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all gear referred to above shall be plainly marked with the safe working load, in the case of a hoisting machine having a variable safe

working load, each safe working load and the conditions under which it is applicable shall be clearly indicated. No part of any hoisting machine or of any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

17. Motors, gearing, transmissions, electric wiring and other dangerous parts of hosing appliance shall be provided with efficient safeguards, Hosting appliance shall be provided with such means as will request to a minimum the risk of the accidental decent of the load adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspension load become accidentally displaced.

When workers are employed on electrical installations which are already energized insulating mats, wearing apparel such as gloves, sleeves and boots as may be necessary should be provided. The workers and carry keys or other materials which are good conductors of electricity.

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

19. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labor Officer, Executive Engineer of the Department or other representative.

20. Notwithstanding the above clauses (1) to (18) there is nothing in these to exempt the contractor from the operations of any other act of rule sin force in the republic of India.

Model Rules for provision of Health and Sanitary arrangements for workers employed by the P.W.D. and Highways and Rural Works Department and their contractors.

The contractor's special attention is invited to relevant clauses of the 'General conditions of contract' in the Tamilnadu Building Practice and he is requested to provide at his own expenses the following amenities to the satisfaction of the Executive Engineer.

1. Application- These rules shall apply to all building and construction works in change of P.W.D.,

2. Definition (i) "Work place" means a place at which average fifty or more workers are employed in connection with construction work.

ii) "Large work place" means a place at which, at an average 500 or more worker are employed in connection with construction work.

3. First – Aid – a) At the work site there shall be maintained in a readily accessible place, first aid appliance and medicines including and adequate supply of sterilized dressing and sterilized cotton wool. The appliances shall be kept in good order. They shall be placed under the charge of a responsible person who shall be readily available during working hours.

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

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

d) Where large work places are situated in cities towns or in their suburbs and no beds are considered necessary owing to the proximity of city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases hospitals. At other work place some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken ill to the nearest hospital.

4. Drinking Water:-a) Water of good quality fit for drinking purposes shall be provided for the work

people on a scale of not less than 15 liters per head per day.

b) Where drinking water is obtained from an intermittent 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 then 15 meters from any latrine, drain or other source of pollutions. Where water has to be drawn from an existing well, which is

within such proximity of latrine, drain or any other source of pollution, the well shall be properly chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.

d)A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for clearing or inspection which shall be done atleast once a month.

<u>5. Washing and bathing places:</u>-Adequate washing and bathing places should be provided, separately for men and women such places shall be kept in clean and drained condition bathing or washing should not be allowed in or near any drinking water well.

6. Latrines and Urinals: There shall be provided within the precincts of every work place, latrines and urinals in an accessible place and the accommodation, separately for each of them, shall be on the following scale or on the scale so directed by the Executive Engineer in any particulars cases.

- i) Where the number of persons employed does not exceed 50-2
- ii) Where the number of persons employed exceed 50 but does not exceed 100-3
- iii) For every additional 100

If women are employed separate latrines and urinals screened from those foremen shall be provided on the same scale.

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

The excreta from the latrines shall be disposed off a the contractor's expense, in out way pits approved by the local Public Health Authority. The Contractor shall also employ adequate number of scavenges and conservancy staff to keep the latrines and urinals in clean condition

7. <u>Shelters during rest:-</u>At every work site there shall be provided free of cost, two suitable sheds one for meal and the other for rest separately for men and women for the use of labourers.

8. Creches:

- (a) A every work place at which 50 or more women are ordinarily employed, there shall be provided two huts of suitable size for the use of children under the age of 6 years belonging to such women, on but shall be used for infants games and play and the other as a bed room.
- (b) The huts shall not be constructed on a lower standard than the following.
 - i) Thatched roofs.
 - ii) Mud floors and walls.
 - iii) Planks spread over the mud floor and covered with matting.

The huts shall be provided with suitable and sufficient opening for light and ventilation. There shall be adequate provision of sweepers to keep the places cleans. There shall be two Dais in attendance. Sanitary utensils shall be provided to the satisfaction of the Health Officer of the area concerned. The use of the huts shall be restricted to Children, their attendants and mothers of the children

(b) Where the number of Women workers is more than 25 hut less than 50, the contractor shall provided atleast one hut and one Dia to look after the children of women workers.

(c) The size of crèche or crèches shall vary according to number of women workers.

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

9. Canteens:

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

10. Sheds for Workmen:

The contractor should provide at his own expense sheds for housing his workmen. These sheds shall be on a standard not less than the cheat shelter type, to live in which the work people in the locality are accustomed to.

A floor area of about 1.8 meters x 1.5 meters for two persons shall be provided. The sheds to be in rows with 1.3 meters clear space between sheds and a 9 meters clear space between rows if conditions permit. The work people's camp shall be laid out in units of 400 persons each, each unit to have a clear space of 12 meters all around.

APPENDIX – XXXVIII

MONTHLY REPORT OF CONSTRUCTION EMPLOYEES UNDER CONTRACTORS

Return for the Months Ending

- 1. Name, location and type of work :
- 2. Name of Contractor :
- 3. Works engaged in : (i) P.W.D. Work :
 - (ii) Government work other than

PWD

(iii) Other works

- 4. Name and address of Manager(s) of works
- 5. Value of contract
- 6. Employment earnings

Category		Employees		
		Boys (1)	Men	Women Girls
I.	Total number of employees during months			-

- II. Number of employees in the works on the last working day of the month
- III. Total wages paid for the
- IV. Total numbers of working days during month
- V. Length of normal wage period

Date : Place : Signature of the Contractor or Manager

То

- 1. The employment Officer, District Employment Office,
- 2. The Executive Engineer, Division

INSTRUCTION TO COMPLETE THE PROFORMA

- 1. The contractor means who has contracted to execute the works.
- 2. Manager means any person who manages, supervises the work(s) on behalf of the contractor.
- 3. Item-6(i) The cumulative total of daily employment on all days in a calendar month, if the last day of the calendar month is a holiday, the working day immediately previous to the holiday.

Item 6(ii) wages means basic wage, dearness allowance project allowances etc., including work benefits paid in cash or kind. Item 6(iii) Columns 2 and 3 refer to adults who are 18 years of age or over. Item 6-Columns 4 and 5 refer to others not covered by columns 2 and 3.

- 4. Returns should cover a calendar month.
- 5. Completed returns to reach the employment exchanges concerned on or before 5th of the month succeeding the month to which he return relates.

ADDITIONAL CONDITION FOR THE SUPPLY OF CEMENT & STEEL BY THE CONTRACTOR

(Engineer-in-Chief & Chief Engineer (General) No. AEE./T1/AE.1/40322/96, dated 28.05.2002) **<u>Cement</u>**: The contractor has to make his own arrangement for the procurement of cement of required specifications for the woks subject to the followings:

(a) The contractor shall procure cement required for the works only from reputed cement factories (main producer or their authorized agents, manufacturing cement to ISI standard) acceptable to the Engineer-in-Charge. The contractor shall be required to furnish to the Engineer-in-Charge bills of payment and cost certificates issued by the manufactures of their authorized agents to authenticate procurement of quality cement from the approved cement factory.

(b) The contractor shall procure in standard packing of 50kg per bearing manufacturers name and ISI marking from the authorised manufacturers. The contractor shall make necessary arrangement at his own cost to the satisfaction of Engineer-in-charge for actual weighment of random sample from the available stock and shall confirm with the specification laid down by the Indian standards institution as the case may be. Cement shall be got tested for all the tests including through destructive and non-destructive test materials etc., as directed by the Engineer-in-Charge in advance before the use of cement bags. In case test results indicate that the cement arranged by the contractor does not confirm to the relevant code, the same shall stand rejected and shall be removed from the site by the contractor at his own cost within day's time of written order from the а Engineer-in-charge to do so.

(c) The employer will furnish air entraining agents and admixtures required to the contractor free of cost at the employer stores. The use of such admixtures and agents shall be made as per the instructions of the Engineer-in-Charge. The cost of cartage / Storage, handling, batching mixing shall be borne by the contractor and shall be included by him to unit offers tendered for concrete.

d) The cement shall be brought at site in bulk of approximately 50 tones or as decided or as decided by the Engineer-in-Charge for large works.

e) The cement Go-down of the capacity to store a minimum of 1000 bags of cement shall be constructed by the contractor at site of work, for which no extra payment shall be made. The contractor shall facilitate inspection of the cement godown by the Engineer-in-Charge at any time.

(f) The contractor shall further at all times satisfy, the Engineer-in-Charge on demand by production of records and test book or by submission of returns and other proofs as directed that the cement is being used as tested and approved by the Engineer-in-Charge for the purpose and the contractor shall at all times, keeps his record up to date and enable the Engineer-in-Charge to apply such checks as he may desire.

(g) Cement which has been unduly long in storage with the contractor or alternatively has datenorated due to inadequate storage and thus become unfit for use on the works will be rejected by the Department and no claim will be entertained. The contractor shall forth with remove from the work area any cement the Engineer-in-charge may disallow for use on work and replace it by cement complying with the relevant Indian Standards.

CEMENT

The contractor has to make his own arrangements for the procurement of cement to required specifications for the works subject to the following.

(a) The contractor shall procure cement required for the works only from reputed cement factories (Main producer of their authorized agents, manufacturing cement at I.S.I. Standards) acceptable to the Engineer-in-Charge. The Contractor shall be required to furnish to the Engineer-in-Charge bills of payment and test certificate issued by the manufacturers or their authorized agents to authenticate procurement of quality cement from the approved cement factory. The Contractor shall make his own arrangement for safe, haulage and adequate storage of cement.

(b) The contractor shall procure in standard packing of 50 kg per bag from the authorized manufacturers. The contractor shall made necessary arrangement at his own cost to the satisfaction of Engineer-in-Charge actual weight of random sample from the available stock and shall confirm with the specification laid down by the ISI or other standard foreign institution as the case may be cement shall be got tested for all the tests as directed by the Engineer-in-Charge atleast one month in advance before the use of cement bag brought and kept on site go-down.

(c) The employer will furnish air string agents and admixtures required to the contractor free of cost at the employer stores. The use of such admixtures and agents shall be made as per the instruction of the Engineer-in-Charge. The cost of Cortege/Storage handling, batching mixing shall be borne by the contractor and shall be included by him to unit offices tendered for concrete.

(h) The contractor should store the cement of 60 days requirement atleast one month in advance to ensure the quality of cement brought to site and shall not remove the same without the written permission of the Engineer-in-Charge.

The contractor shall forthwith remove from the works area and cement that the Engineer-in-Charge may disallow for use on account of failure to met with required quality and standard.

(i) The Contractor will have to construct sheds for storing cement having capacity not less than the cement required for 90 days use at approved location. The Engineer-in-Charge the representative shall have free access to such stores at all times.

(j) The contractor shall further at all times satisfy the Engineer-in-Charge on demand by production of records and books or by submission of returns and other proofs as directed that the cement is being used as tested and approved by Engineer-in-Charge for the purpose and the contractor shall all times, keeps such record. Unto date to enable the Engineer incharge to apply to such checks as the may desire.

(k) Cement which has been unduly long in storage with the contractor or alternatively has deteriorated due to inadequate storage and thus become unfit for use on the work will be rejected by the Department and no claim will be entertained. The contractor shall forthwith remove from the work area any cement the Engineer-in-Charge may disallow for use of work and replace it by cement complying with the relevant Indian standards.

<u>STEEL</u>

The contractor shall provide mild steel (MS) reinforcement. High yield strength Deformed (HYSD) Bars, rods and structural steel etc., required for the works only from the main and secondary producer manufacturing steel or the authorized agents to the prescribed specification. Bureau of India standards requirements and licensed to affix ISI or other equivalent certificate of marks and acceptable to the Engineer-in-Charge Necessary I.S.I. test certificates are to be produced to Engineer-in-Charge before use on works.

The diameters and weight of steel should be as follows.

SI. No	Diameter of rod	Sectional weight in kilogram per running meter both for plain and HYSD steel.
01.	6 Millimetres	0.222
02.	8 Millimetres	0.395
03.	10 Millimetres	0.617
04.	12 Millimetres	0.888
05.	16 Millimetres	1.578
06.	20 Millimetres	2.466
07.	22 Millimetres	2.980
08.	25 Millimetres	3.854
09.	28 Millimetres	4.830
10.	32 Millimetres	6.313
11.	36 Millimetres	7.990
12.	40 Millimetres	9.864

<u>Note:</u> if any rods other than those specified above are used the weights shall be as per standard steel tables only. If department steel is issued for the work, the same will be recovered.

Special Condition

The contractor should take over the site from TAHDCO and commence the work with in fifteen (15) days from the date of acceptance of the agreement. Failing which a fine of Rs.1,000/- (Rupees One Thousand only) per day will be recovered and there after a fine of Rs.500/- (Rupees Five Hundred only) will be recovered per day till the date of commencement of the work.

If the work is not commenced with in thirty days, the agreement will be terminated forfeiture of EMD and the contractor will be banned from taking up work in TAHDCO for two years.

Criminal procedure will be initiated against the Contractors when confirmed the works which awarded by TAHDCO are totally sublet to others.

One registered contractor cannot participate in not more than two works prescribed in the tender notice. Suppose if the contractor is participating in more than two works, criteria such as previous experience in works, work performance, financial performance will be considered for evaluation of tenders.

The Registered contractors of the concerned division should participate in the concerned division works only.

General Manager(Tech), TAHDCO, Chennai – 18.

The following materials are approved for using Electrical works.

Materials:

5 Amps Single pole switch with porcelain base, stair case switch concealed type switch, Ceiling rose, batton holder and other bakelite accessories : KEBSON SOPHER, KHOSLA, GEC, PILOT, STANDARD, SHAMCO, TRICHUS, MARCO,KAYCEE, ARIAN, OBLONG TYPE, KALKI, SANCO, OK/55, RAMKEY RAHAJ.

5 Amps and 15 Amps C.S plug with porcelain base : **PREMIER STANDARD TRICHUL**, **MARPO, SCHPER, BEF KAYCEE, HKALI, SHAMCO, RAMKEY, BAJAJ, OB 555**.

Flush type switches with pince batton switch knot and flush to 5 Amps to 15 Amps 3 Pin CS Plug (Flush Type) : **ANCHOR, RECORD, SHAKCO, RAKEY KHOSLA, KALKI NOVA. SHADES:**

White opel, Fancy Glass.

Brass accessories (Holders Angle holders and patton) KAY 555, KERSON, KHOSLA, RAMEY, ELLORA, RAMKEY, KALKI MEN, GEC, SIMPLEX, BOSMA FUSE UNIT WITCO, SCHPER, GEM, STANDARD.

IRON AND METAL GLAD SWITCHES UPTO 60 Amps; BOSMA, WITCO, HEM, GEM, PREMIER, BSA, SPC, CONTRACTOR, MEN SIMPLEX BENCO, GEC, MENCO, IRON AND METAL GLAD SWITCHES ABOVE 60 Amps; BENCO, SIMPLEX, GEC, ENGLISH, ELECTRIC, AEI, LTLK, EAS UANOTHER MILL, CROMPTON, GEM, STANDARD.

BULK HEAD FITTING: F – LIFE, BAJAJ.

<u>U.G.CABLES:</u> ICC, CLOSTER, PREMIER, PROPODUE(STEMENS) UNIVERSAL POWER CABLE ASIAN CABLES AND ALL OTHER CABLES WITH I.S.I. MARK.

WIRING CABLES AND WEATHER PROOF CABLES:

ICC, CLOSTER, STERLITE, FINILEX, MAHENDRA, DEVI DYAL, MICO. <u>DISTRIBUTION BOARDS:</u>

BOSMA, SENTINAL, CONTRACTOR, GEC, MINDUS, TAC, GEM, MEN CO, FLOURECENT AND INCANDESCENT LAMPS:

AEI, GEC, PHILIPS, BALIGA, BAJAJ, CROMPTON, CROMPTON GREAVES, MAZADA, THOSI, BAN, BENCA.

<u>CEILING FAN:</u> CROMPTON, ORIENT, USHA, TROPICAL, BAJAJ, COOL HOME. TABLE FANS: CROMPTON, RALLIES, ORIENT, USHA.

EXHAUST FANS: CROMPTON GREAVES, GEC, BAJAJ, USHA, CALCATTA FANS.

All electrical materials and equipments approved by the General Electrical Testing Laboratories at **KAKKALUR** in Thiruvallur District can be used on works.