



Tamil Nadu Veterinary and Animal Sciences University

Office of the Estate Officer, TANUVAS,
Madhavaram Milk Colony, Chennai-51.

PHONE No. 044 2999 2580

Tender Documents

e-TENDERING

SCHEDULE-B & SCHEDULE -C

Contains Pages: 1 to 85

Name of work : **Establishment of Advanced Training centre for Animal Birth Control Program at Madras Veterinary College, Chennai-07.**

Tender shall be submitted on or before: **12.08.2025 up to 10.00 AM**

Tender shall be opened on: **13.08.2025 at 11.00 AM onwards**

ANNEXURE - TENDER DETAILS

1	TENDER NOTICE NUMBER	:	<u>05/E.O/DB/Tender/2025-2026 dt</u> <u>18.07.2025</u>
2	NAME OF WORK	:	Establishment of Advanced Training centre for Animal Birth Control Program at Madras Veterinary College, Chennai-07.
3	APPROXIMATE VALUE PUT TO TENDER (Including GST @ 18%) in Rupees	:	Rs.139.02 Lakhs
4	DATE OF AVAILABILITY OF BID DOCUMENTS	:	28.07.2025 10:00 AM onwards in the Government website www.tntenders.gov.in
5	DATE OF BID SUBMISSION (START TIME & END TIME)	:	28.07.2025 10:00 AM to 12.08.2025 10.00 AM
6	DATE OF OPENING OF BID	:	13.08.2025 at 11.00 AM
7	EMD AMOUNT (Including GST)	:	Rs.80,000 /- (Rupees Eighty Thousand Only) (Online mode)
8	PERIOD OF COMPLETION OF WORK	:	Six Months (Including Monsoon)
9	TENDER INVITING AUTHORITY	:	ESTATE OFFICER

CONTRACTOR

TANUVAS,Chennai-51

Sd/-xxxxxx
ESTATE OFFICER

LETTER OF CONSENT
e- Tendering

Name of Work:

1. I/we agree to abide by all the detailed specifications, terms and conditions stipulated by the Tamil Nadu Veterinary and Animal Sciences University, Chennai-51 which I/we have read and understood.
2. I/we certify that I/we have fully read and understood the instruction to bidders for online bid submission given by Tamil Nadu Veterinary and Animal Sciences University, Chennai-51, and any lapse to properly submit the bids result in rejection of the bid submitted.
3. I/we certify that the tender is offered without any alteration / addition / omission.
4. I / we certify that all the conditions of the tender are accepted.
5. I/we agree that the Tamil Nadu Veterinary and Animal Sciences University, Chennai-51. is not responsible for any data corruption that might arise during the transmission / uploading of data in the website or due to disruption in communication error in my / our tender.
6. I/we agree that the Tamil Nadu Veterinary and Animal Sciences University, Chennai-51 has right to change schedule of opening or any technical corrective action to resolve any error that might arise during the opening of the e-tender by Tamil Nadu Veterinary and Animal Sciences University.
7. I/we certify that I/we are responsible for the uploading of correct copies of scanned documents as per the e-tender procedure of Tamil Nadu Veterinary and Animal Sciences University, Chennai-51.
8. & I /we understand that any error in doing so my /our tender may be summarily rejected by Tamil Nadu Veterinary and Animal Sciences University, Chennai-51.
9. In the event of failure on my / our part to comply with all the requirements mentioned in this tender document I / we unconditionally agree that the department is at its liberty to reject my/our tender.
10. I/we here by declared that I/we have not been terminated from any works by TANUVAS in the past due to non completion of work within the time /poor workmanship /deviation of condition as stipulated in the agreement.

Note: To be submitted separately in the letter head with Signature and Seal.

Signature of Tenderer

CONTRACTOR

Sd/-xxxxxx
ESTATE OFFICER

TANUVAS, Chennai-51

IMPORTANT INFORMATIONS TO THE BIDDERS

- 1 The tenders invited are only for item rate. The basic rate quoted is exclusive of GST. Only the rates offered in the BOQ alone will be taken as valid rates and taken up for tender comparison. Rates or Lump sum amounts for items not called for shall not be included in the tender. If any alteration is made by bidder in the contract form, the conditions of Contract, the drawings, specification, or quantities the tender will be summarily rejected. Any lump sum deductions or increase or rebate offered either in the tender or in the covering letter or at any portion of the tender will berejected.
2. The Bidders will make their own arrangements to procure and use the cement and steel (as per IS standards and its latest amendment from time to time) required for the work.
3. The cement brought and used should conform to ISS No. 269 of 1976 and steel should Conform to IS No. 432/64 and 1786/79 (its latest amendment ifany). It should be clearly understood that the rate quoted by the bidder / bidder is inclusive of the cost of 43. Grade ordinary Portland cement/ SRC and steel and other incidental charges such as conveyance, loading, unloading, stacking at site and testing charges etc.,
4. The Bidder will produce test certificate obtained from any one of the Govt. institutions for cement and steel brought to site. As and when required by the Department the cement and steel brought to the site shall be tested by the Department from any one of the approved Govt. institutions and only when the test results confirm to the ISI specification they will be allowed to be used in the works.
5. The Bidder should strictly follow above instructions without fail.

CONTRACTOR

TANUVAS,Chennai-51

Sd/-xxxxxx
ESTATE OFFICER

E-Tendering – INSTRUCTIONS TO BIDDER for online submission:-

1. The above tender notice and tender document is available in the website <https://tntenders.gov.in>.
2. The intending bidder may visit <https://tntenders.gov.in>. Website and upload the tender documents on or before the due date and time as mentioned in the Annexure.
 - a. The Bidders should download the documents which is digitally signed only from this website <https://tntenders.gov.in>
3. The bidders are requested to digitally sign the Bid Document and convert them to the required format.
4. Bidders are requested to use the Digital Signature (e-token) for Registration for e-submission through the website <https://tntenders.gov.in>
5. The Scanned copies of the documents as per the check list are to be uploaded and digitally signed by the bidder at the time of submission of bids through the website in the required format.
6. Earnest Money (With GST) – Shall be paid through online mode Only
7. The other needed documents like Registration details, Experience Certificate, Income tax, GST Registration and Filing certificates, financial capability proofs, etc., are to be up loaded as per the condition.
8. All the necessary documents mentioned above may be joined together and converted to **zip** files and uploaded as single file in the website.
9. The Digital Signature Certificate / e-token may be obtained by the bidders individually at the risk and cost of the bidder.

Note :The bidder should furnish the documents mentioned in the check list for Scrutiny and evaluation of the tender through online only. Failure on the part of the bidder to comply with the requirements, the tender will be treated as defective tender and liable for rejection.

SINGLE COVER-CHECK LIST FOR UPLOADING / ONLINE SUBMISSION

1. **EMD** to be deposited through the **payment gateway** in the portal.
2. Scanned copy of **Registration certificate as a contractor in the relevant class in TANUVAS/CPWD** or any other Tamilnadu government department with appropriate monetary limit, and **Live Certificate for the Current Year** received from competent authority.
3. i) In case the tender is, made by **Registered firm**, it shall be digitally signed by the managing partner (or) the person authorized by the firm, with full name of the firm and address. The proof shall be submitted along with the copy of **Partnership deed** and current renewal for firm registration.(i.e).Scanned copy of **FORM C Certificate** obtained from registrar of firms **with proof of form 'c' renewal 2024-2025**.(Copies should be duly attested by Notary Public /Gazetted officer).

In case the tender is made by a partnership concern, **Partnership deed** should be enclosed.

ii) In case a tenderer, tendered in the **Name and Style of Proprietorship Concern** the tenderer should **enclose the letter of Authorization for sole Proprietorship deed obtained from the Notary Public in non-Judicial stamp paper value of Rupees Up to One Hundred Rupees**(Duly attested by the Notary Public / Gazetted Officer) along with the tender. Otherwise the tender shall be liable for rejection.

iii) In case the tender is made by a **limited company or a limited corporation**, it shall be signed by a duly authorized person holding **the power of attorney** for signing the tender in which case a certified copy of the power of attorney shall accompany the tender. **The articles of memorandum of the company and profile** of the company with company incorporation certificate copies with seal (duly attested by Notary public /Gazetted officer) shall be submitted along with their tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded

iv) In case the tender is made by an **individual**, the tender documents shall be digitally signed by **the individual with his name and address**.

4. Scanned copy **of Income tax returns filling for the Assessment Year 2024-2025**.
5. Scanned copy of **GST Registration Certificate** and **GST Filling for the month of May-2025**
6. Scanned copy **of Revenuesolvency for a value as per the requirement of registration** in the respective class **with up to date EC (Encumbrance Certificate)**. Revenue Solvency must be in the name of the proprietor (If proprietorship firm) or one of the partner or all the partners, (If partnership firm). The Encumbrance certificate should have been obtained from the competent authority **for the period from the date of solvency to the date after tender notice without any break**. The details of survey number, area etc., of the property mentioned in the solvency certificate and Encumbrance certificate should be tallied. If any discrepancies, the same will not be considered and EC should be free from Encumbrance. **The online EC** will be considered only if it's **digitally signed by the competent authority**.

7. Scanned copy of **Experience certificate in Government department** obtained from the competent authority indicating Name of work, Agreement No, Agreement Amount, Agreement period, scheduled time for completion, Date of commencement of work, Date of completion of work, extension of time, remarks if any etc to be provided, (Private experiences are not accepted)

The bidder should produce proof of Experience Certificate from appropriate authorities of having satisfactorily completed the following.

- **Two (2) similar works** each of value not less than 40% of the **Estimate Value Put to tender** (As per annexure SI.No .3) during the preceding 5 years prior to date of tender.

(Or)

- **One (1) similar work** of value not less than 80% of the **Estimate Value Put to tender** (As per annexure SI.No .3) during the preceding 5 years ending prior to date of tender.

8. **Annual Turnover:** The bidder should have achieved the turnover of **100% of the Estimate Value Put to tender** value in any one of the preceding past three years. (Scanned copy of Audit Statement indicating the 100% turnover for the year of **FY-2021-2022&FY-2022-2023FY-2023-2024**, and with the **chartered accountant's membership Number** should be clearly mentioned in their seal).

9. The bidder who quotes tender should personally visit the work site and submit a scanned copy of site visit certificate issued by the executive engineer TANUVAS. Tenders without this certificate will be summarily rejected.

10. The bidder should furnish a letter from the Notary Public that there is no **Criminal case registered against the, contractor /agency either pending or disposed**. Any history of indulging in criminal cases will be a bar for participating in the tender. Tenders without this certificate will be summarily rejected.

11. **All the copies of the credentials and particulars furnished** by the tenderer should be duly **attested by the Notary Public/Gazetted officer**. Otherwise the tender shall be rejected as per the provisions of TT Act rule No.28 of 2000.

12. **Letter of Consent (Refer Page No: 3):** To be submitted separately in the **letter head with Signature and Seal**.

13. Digitally signed and filled BOQ (Schedule – A) – in excel format and Tender documents. (Schedule – B) and Drawing (Schedule – C) must be uploaded.

Note: The tenderer should furnish the above documents mentioned in the check list for scrutiny and evaluation of the tender. Failure on the part of the tenderer to comply with the above requirements, the tender is liable for rejection.

THE FOLLOWING INSTRUCTIONS ARE TO BE CARRIED FOR ONLINE SUBMISSION OF BIDS

1. Bidder should do registration in the tender live website www.tntenders.gov.in using the option available. Then the Digital Signature registration has to be done with the E-token, after logging into the site. The e-token maybe obtained from any one of the authorized Agency which is available in the portal.
2. Bidder then login to the site through the secured log in by giving the password of the e- token & then the user id/password chosen during registration.
3. The e-token that is registered should be used by the bidder and should not be misused by others.
4. After downloading / getting the tender schedules, the Bidder should go through them carefully and then submit the documents as asked, otherwise, the bid will be rejected.
5. Bidder should take into account of the corrigendum, if any, published before submitting the bids online. Failure to note such corrigendum is the responsibility of the bidder and department will not take any responsibility.
6. Bidder, in advance, should get ready the bid documents to be submitted as indicated and they should be in the prescribed format.
7. The bidder may take a copy of the signed and filled tender document before uploading of the e- tender. Also, the bidder should aware that if any difference is found in the rates and other details, the figures and other details mentioned in the online tender alone will be considered as valid and final. If the bidder fail to do so his / their tender will be liable for rejection”.
8. The bidder should read the terms & conditions and abide by the same.
9. The bidder has to submit the tender document online well in advance before the prescribed time to avoid any delay or problem during the submission process.
10. After the bid submission, the acknowledgement number given by the e-tendering system should be printed by the bidder and kept as record of evidence for online submission of bid for the particular tender.
11. TANUVAS will not be held responsible for any sort of delay or the difficulty faced in the submission of tenders online by the bidders.
12. The bidder who participated in the tender, should submit the tender documents through e-tendering online system only.
13. The basic rates have to be entered in the specified place given in the (**BoQ.xls** file) and should be submitted as **BoQ.xls** file during the e-bid submission.
14. The tendering system will give a successful bid update message after uploading all the bid documents submitted & then a bid summary will be shown with the bid number & the date & time of submission of the bid with all other relevant details. The documents submitted by the bidders will be digitally signed with the E-token of the bidder and then submitted.

15. The bid summary has to be printed and kept as an acknowledgement as a token of the submission of the bid. The bid summary will act as a proof of bid submission for a tender floated and will also act as an entry point to participate in the bid opening date.
16. Bidder should log into the site well in advance for bid submission so that he submits the bid in time i.e., on or before the bid submission date & time. If there is any delay, due to other issues, bidder only is responsible.
17. Each document to be uploaded through online for the tenders should be less than 2 MB. If any document is more than 2 MB, it can be reduced thro' zip and the same can be uploaded. However, if the file size is less than 1 MB the transaction uploading time will be very fast.
18. The time settings fixed in the server side & displayed at the top of the tender site, will be valid for all actions of requesting, bid submission, bid opening etc., in the e-tender system. The bidders should follow this time during bid submission.
19. All the data being entered by the bidders would be encrypted using PKI encryption techniques to maintain secrecy of the data. The data entered will not be viewable by any person during bid submission & not be viewable by any one until the time of bid opening. Overall, the submitted tender documents become readable only after the tender opening by the authorized person in the department.
20. The confidentiality of the bids is maintained through the secured Socket Layer 128 bit encryption technology is used.
21. The bidders are requested to furnish the tenders through e-tendering on line system to the tender inviting authority before the scheduled time as mentioned in the Annexure (as per Server System Clock).
22. In case the tender is made by an individual, the tender documents shall be signed by the individual with his name and address.
23. In case a tenderer, tendered in the Name and Style of Proprietorship Concern the tenderer should enclose the letter of Authorization for sole Proprietorship obtained from the Notary Public in non-Judicial stamp paper value of Rupees Up to One Hundred Rupees (Duly attested by the Notary / Gazetted Officer) along with the tender. Otherwise the tender shall be liable for rejection.
24. In case the tender is made by registered firm, it shall be signed by the Managing Partner (or) the person authorized by the firm, with full name of the firm and address. The proof shall be produced along with the firm registration and renewal for firm registration.
25. The bidders are liable to pay a penalty for non-employment of the technical staff as laid down in the conditions of employment of Technically qualified personnel.

The Estate officer has the right of rejecting any or all the tenders without assigning any reason.

e-Tendering**Office of the Estate Officer, TANUVAS, Chennai - 51.**

For and on behalf of the Vice-Chancellor, TANUVAS, Chennai-51 e- tender is invited by the Estate Officer for the under mentioned work so as to reach The Estate Officer, TANUVAS, Chennai-51, not later than the date and time mentioned in the Annexure (Serial No. 5). The tenders will be opened by the Estate Officer, TANUVAS, Chennai-51, at his office on the date and time mentioned in the Annexure (Serial No.6) in the presence of the bidders or their authorized representative, who are present at opening time for the work.

The tender should be in the prescribed form available in the website [www.http://tntenders.gov.in](http://tntenders.gov.in).

1. **The bidders or the authorized persons should be present at the time of opening of tenders. along with bid submission acknowledgement slip Print and authorization letter**
2. In case the tender is made by an individual, the tender documents shall be signed by the individual with his name and address using e-token.
3. In case the tender is made by registered firm, it shall be signed by the Managing Partner (or) the person authorized by the firm, with full name of the firm and address using e-token. The proof shall be produced along with the firm registration.
4. In case the tender is made by a limited company or a limited corporation, it shall be signed by a duly authorized person holding the power of attorney for signing the tender in which case a certified copy of the power of attorney shall accompany the tender. The articles of memorandum of the company and profile of the company with company incorporation certificate copies with seal (duly attested by Notary public /Gazetted officer) shall be submitted along with their tender. Such limited company or corporation may be required to furnish satisfactory evidence of its existence before the contract is awarded.
5. Each bidder must also send a certificate of the latest Income-tax return acknowledgement in the form prescribed therefore. All tenders received without certificate as aforementioned will be summarily rejected.
6. Each bidder must deposit Earnest Money deposit (E M D) (with GST) of a sum of **Rs.80,000 /- (Rupees Eighty Thousand Only) through online in the payment gateway. It is the Contractors responsibility to ensure that the EMD (With GST) is deposited before the prescribed time to avoid tender rejection.** Tenders accompanied by cheques or cash will be summarily rejected.

The Earnest Money deposit (with GST) will be retained in the case of successful bidder and will not carry any interest. It will be dealt with as provided for in the tender.
7. The tender will remain valid for a period of 90 days from the date of opening of tender. The validity period can be extended further, if the bidder gives his consent in writing, specifying the period of extension.

CONTRACTOR

TANUVAS, Chennai-51

Sd/-xxxxxx

ESTATE OFFICER

SPECIAL INSTRUCTION TO THE TENDERERS

1. The tender documents shall be downloaded by the contractors registered in Public Works Department / TANUVAS / any other State Government Department in the appropriate class.
2. The Tenderers should carefully go through the tender BOQ and quote the rates for all items.
3. The rate for each item of schedule should be furnished by the tenderer without omission in appropriate columns of BOQ sheet.
4. The total value of each item of work should be worked out and entered in the amount column. Proper care must be taken in working out the value of each item of work taking into account the unit for which the rate is quoted and the quantity of work to be done under the item.
5. The Tenderer shall quote the rates excluding GST for the quantity and units specified under metric units under schedule.
6. The tender should be uploaded along with the copy of letter registering them into the appropriate class.
7. E.M.D. will be accepted through online procurement portal only.
8. The successful tenderer should convert the E.M.D. as security deposit already deposited and additional security deposit.
9. In case the tenderer who are eligible for concessional Earnest Money Deposit and accordingly they should furnish the reference No. 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.
10. Details of previous work done by the Tenderers covering the cost of the work, the agreement, No. date, department in which the work was carried out, etc., should be furnished so as to assess the previous experience of the tenderers. Year wise details should be furnished so as to see that these tenderers have minimum experience of major building.
11. If necessary list of various machinery and other equipment at the tenderer's disposal for use in the execution of the work, should be uploaded.
12. The tenderers should fill up the Annexure to the Tender schedule furnishing thereto the required information.
13. The tenderers should furnish the particulars of name, address and technical qualification of the Technical Assistant proposed to be employed by them to look after the execution of this work as per terms and conditions of the contract.
14. The tenderer, should upload all pages of the tender through E-procurement portal.
15. Plans and schedule issued and tender documents in foolscap with digitally signed by the tenderer.
16. If at any time the Estate Officer, TANUVAS shall be of the opinion that the contractor is delaying commencement of the work or for violating any of the progress or work as defined by the tabular statement "Rate of progress" of each slice in the "Articles of Agreement". The Estate Officer, TANUVAS, shall so advise the contractor in writing and at the same time demand compliance. If the contractor neglects to comply with such demand within 7 days after the receipt of such notice it shall then or at any time. Thereafter be lawful for the Estate Officer, TANUVAS to determine the contract which determination shall carry with the forfeiture of the Security Deposit and total of the amount withheld from the final bill together with value of such work as may have been executed and not paid for such proportion of such total sums as shall be assessed by the Estate Officer, TANUVAS.

CONTRACTOR

TANUVAS, Chennai-51

Sd/-xxxxxx

ESTATE OFFICER

FORTHESPECIALATTENTIONOFTHEAPPLICANTS

1. Approval of the e-tender will be strictly based on the detailed evaluation on the basis of the documents / records / evidences / certificates produced by the applicant. In case of any discrepancy the tender will be rejected.
2. The tenderer before offering their rates, should visit the site of work before tendering. The tenderer should also obtain and produce a certificate from the concerned authority that the tenderer has visited the site personally and upload the same along with tender documents.

TENDERFORM

To
 Vice-Chancellor,
 Tamil Nadu Veterinary and Animal Sciences University,
 Madhavaram Milk Colony,
 Chennai – 51.

Sir,

I/we.....do hereby tender and if this tender be accepted undertake to execute the work of “As shown in the drawings and describing in the specifications deposited in the office of the Estate Officer, TANUVAS ofCircle / Division with such variations by way of alterations (or) additions to and omission from the said works and method of payment are provided for in the “Conditions of contract for the sum of Rupees (to be entered in words and figures.)

Or such other sum as may be arrived at under the clause of the General conditions to contract relating to payment on lump sums or by final measurements at unit prices”.

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

3. I/We do hereby distinctly and expressly declare and acknowledge that be for the submission of my/our tender, I/We have carefully followed the instructions in the tender notice and have read the Tamil Nadu building practice and the general conditions to the contract therein and the Tamil Nadu building practice addenda contract 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 regard to the materials required to be furnished as to enable me/us to thoroughly understand the intention of the same and the requirement, Covenants, stipulations and restrictions contained in the contract and in the said plans and specifications and distinctly agree that I/we will not here after make any claim or demand upon the University based upon or arising out of any alleged misunderstanding or misconception or mistake or my/our. Part of the said requirements, covenants, stipulations restrictions and conditions.

4. I/Webeing a registered TANUVAS / PWD or any other Government Department enclose an income Tax verification certificate have already produced an Income Tax verification Certificate during the current calendar year in respect of (Here particulars of the previous Occasions on which the certificate was produced should be given). The legal address of the contractor for service Of all letters and notices will be as follows:

CONTRACTOR

TANUVAS, Chennai-51

**Sd/-xxxxxx
 ESTATE OFFICER**

5.(i)(a)I/We encloseherewithdetailsoftheonlinepaymentofthesumRupees.....

.....as EarnstMoneynot to bearinterest (tobe enteredin words and figures).

5.(i)(b)I/WehavepaidRs(Rupees.....

.....onlyasagainsttheE.M.D. of Rs.....(Rupees only)

Since I am/we are and

EligibletopaytheE.M.D., atconcessionalrates.

5.(i)(c)inlieuofcashdeposits,I/Wehaveencloseda.....

.....bearingNo.....Date.....

.....issuedby..... foravalue

OfRs.....(Rupees.....

.....only)drawn/endorsed/pledgedin favouroftheEstate Officer, TANUVAS, Chennai-51.

..... Division.

5. (i)(d)Iam/Weare..... an hence exempted from payment of E.M.D.

6. Ifmy/ourTenderisnotaccepted,thissumshallbe returned tome/usonmy/our Applicationswhenintimationissenttome/usfor rejection norattheexpirationorninetydaysfromthe dateofhistender,whichever,isearlier.Ifmy/ourtenderisaccepted,theEarnestMoneyDeposit shallberetainedbytheGovernmentassecurityfortheduefulfillmentofthecontract.If upon intimationbeinggiventome/usbytheauthorityauthorizedbytheGovernmentunderarticle299(i) oftheconstitution(hereinaftercalledtheacceptingauthority)ofacceptanceofmy/ourtender, I/we failtomaketheadditionalsecuritydeposit,ortoenterintorequiredagreement(asspecifiedinclass IV of the tender notice) then I/We agree to the forfeiture of theEarnest Money Deposit. Any notice required to be served on me/us hereunder shall be sufficient served on me/us if delivered to me us personally or forwarded, to me/us by post to (Registered or ordinary) or left at the mail address given herein.Suchnoticeshall,ifsentbypostbedeemedtohavebeenserved,onme/usatthetimewhen induecourseof post, it wouldbedeliveredattheadresstowhichitissent.

7. I/We fully understand that on receipt of communication of acceptance of tender, from the acceptingauthoritythereemergesavalidcontractbetweenme/usandtheGovernorofTamilnadu andthetenderdocumentsi.e.,tendernotice,tenderwithschedules.Generalconditionstothe contractandspecialconditionsofthetender,negotiationletter,communication of acceptance to tender,shallconstitutethecontractforthispurposeandbethefoundationofrightsofboththe parties, as defined in clauses (iv) of tender notice, provided that, it shall be open to the accepting, authority to insist on execution of any written agreement by tenderer, if administratively considered necessary or expedient.

CONTRACTOR

Sd/-xxxxxx
ESTATE OFFICER

8. I/We have also signed the copy of the Tamilnadu building practice and national building code and addenda volume there to, maintained in the.....

.....Estate Office, in acknowledgement of being bound by all Conditions of the clauses of the General conditions to the contract and all specifications for items of work described by a specification number in Schedule "A".

9. In consideration of the payment of Rupees.....
.....of such other sum as may be arrived at under the clause of the General conditions to the contract relating to payment of lump sum basis or by final measurement at unit prices I/We agree, subject to said conditions to execute and complete the works shown upon the said drawing serially from Number 1 to inclusive (schedule B) and described in the specifications (Schedule C) and to the extent of probable quantities shown in the (schedule-"A") with such variations by way of alteration of, additions to or deductions from the said work method of payment therefore as are provided for in the said conditions.

10. The term "Estate Officer, TANUVAS" in the said conditions shall mean the Estate Officer, TANUVAS having jurisdiction for the time being over the work, who shall be competent to exercise, all the powers and privileges reserved here in favour of the Government with the previous sanction of or the subject to ratification by the competent authorities in case where such sanction or ratification may be necessary and who has been duly authorized under Article 299(1) of the constitution.

10. (1) In the event of the work being transferred to any other Circle/Division/Sub-Division. The Estate Officer, TANUVAS who is in charge of Circle / Division / Sub-Division having jurisdiction over the work shall be competent to exercise all the power and privileges reserved in favor of Government.

11. I/We agree that the time shall be considered as the essence of this contract and to commence the work, as soon as this contract is accepted by the competent authority as defined by the Tamilnadu Public Work Department Code and the site (or premises) is handed over to me/us as provided for in the said conditions and agree to complete the work **withintime stipulated from the date of such handing over of the site (or premises) and show progress as defined in the tabular statement "Rate of progress"** of each slice subject nevertheless to the provision for extension of time contained in clause 56 of the General conditions to the contract appended to Tamilnadu building practice.

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

13. I am/We 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 playing extra attention to such works as may require special attention (e.g.) reinforced cement concrete works.

CONTRACTOR

TANUVAS, Chennai-51

Sd/-xxxxxx
ESTATE OFFICER

S.No.	Name of technical staff proposed to be employed	Qualification and experience
1.		
2.		
3.		
4.		

14. 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

1. The Estate Officer, TANUVAS, Chennai-51 in case the value of claim does not exceed Rs.50,000/- (Rupees fifty thousand only).

2. And through the competent civil court if the value of claim is more than Rs.50,000/-.

Signature of the contract or with date

15. In pursuance of negotiation with the Estate Officer, TANUVAS

.....of.....

I/We, agree to reduce the rates for the items in the schedule as follows:

Sl.No.	Item No.	Schedule	Reduced rate per unit

Date:

Signature of Contractor

CONTRACTOR

TANUVAS, Chennai-51

Sd/-xxxxxx

ESTATE OFFICER

16. On behalf of the Governor of Tamilnadu and as duly authorized by the Governor under Article 299(1) of the constitution the above tender for a value of Rs.....
(Rupeesonly)Is
Accepted on this day.....of.....

Signature of the
witness in full and
address with
name
In Block letters

Signature and Designation

Note: The above form need not to be filled and submitted for the 'e'tenders

Lump sum Contract

e-Tender notice

For and on behalf of the Vice Chancellor of TANUVAS, the Estate officer, TANUVAS, Madhavram milk colony invites tender for the above work **up to 10.00 AM aforementioned dates of tender inviting notice through online** in e-procurement portal (<https://tntenders.gov.in>) of the Government of TamilNadu

The tenders should be in the prescribed form downloaded from the above website and duly filled by the Tenderers while uploading the tenders in the above website. **The e-tenders submitted in the above website will be opened by the Estate officer, TANUVAS, Chennai-51 on the time prescribed through aforementioned website.**

Tenders must be submitted through online and No postal tenders will be accepted as this is e-tenders per G.O.Ms.No.93, Finance (Salaries) Department, dated: 30.03.2023 and G.O.Ms. No.94, Finance (Salaries) Department, dated: 30.03.2023

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 who shall also sign his own name and the name and address of each member of the firm shall be given, if the tender is made by a corporation, it shall be signed by and authorized officer who shall produce with his tender, satisfactory evidence of his authorization. Such tendering corporation may be required before the contract is executed, to furnish evidence of its corporate existence.

Each tenderer must also sent a certificate of Income Tax verification form the appropriate Income-Tax authority in the form prescribed therefore. This certificate will be valid for one year from the date of issue for all tenders submitted during the period. In the case proprietary and partnership firm, it will be necessary to produce the certificate afore mentioned for the proprietors or proprietors and for each of the partner as the case may be.

If the tenderer is a registered P.W.D., contractor and if a certificate for the current for the current year and 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. All tenders received without a certificate as aforementioned will be summarily rejected.

Each tenders must pay an Earnest money deposit fixed in the tender notice is including the basic rate and Goods and Service Tax (GST) through online E-Procurement Portal. The earnest money will be refunded to the unsuccessful tender on application, rejection of the tender or at the expiration of three months from the date of tenders whichever is earlier. The refund will be authorized by the Estate officer. The earnest money will not be received in cash or currency by the university.

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The earnest money will be retained in the case of the successful tenderer and will not carry any interest. It will be dealt with as provided in the tender. The successful tenderer should pay the security deposit for 2% of Agreement value and pledge the same in the name of the Estate Officer, TANUVAS, Chennai-51 before signing the agreement and after that earnest money deposit will be refunded. The earnest money deposit will be automatically refunded to the unsuccessful tenderer in the same account number.

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

- i. The tenderer whose tender is under consideration shall be attend the Estate office before the end of the period specified by written intimation to him. If the tenderer fails to attend the office before the end of the 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(1) of the constitution, hereinafter called the accepting authority, make security "deposit of 2% of the value of contract including GST amount in one of the forms prescribed in Tamilnadu Public works 'A' code (i.e. by taking onto account of the amount of earnest money deposit (1% of the estimate cost) already deposited with the tender, it would be sufficient to pay the balance amount to make up the 2% of the value of contract including GST amount for the purpose of security deposit). The above additional security deposit at 1% will be produced before signing the agreement. The security deposit together with earnest money deposit and the amount withheld 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 is made by the contractor, he shall follow the procedure laid down in the proceedings paragraph for payment of earnest money deposit and such deposit shall not bear any interest.
- ii. On receipt of written communication of acceptance of tender, if the tender fails to pay the requisite security deposit within the period specified in the written communication for back out from the tender or withdraws his tender after acceptance the earnest money deposit shall be forfeited to the government. If the contractor to carry out the contract after paying the requisite deposit, then he will be liable for the excess expenditure if any incurred to complete the work as contemplated in the general conditions to the contract
- iii. It shall be expressly understood by the tenderer that on receipt of written communication of acceptance of tender by the accepting authority, there emerges a valid contract between the Governor of Tamilnadu and the tenderer for execution of the work without and separately written agreement. Hence for this purpose, the tender documents, i.e. tender notice, tender offered by contractor, general conditions to the contract special conditions to contract

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negotiation correspondences, written communication of acceptance negotiation

Correspondences written communication of acceptance of tender etc., shall constitute of valid contract and there will be the foundation of the rights of both the parties to 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. The tenderer shall examine clearly the Tamilnadu building practice and also the general conditions to contract contained therein and sign the Divisional office copy of the Tamilnadu Building practice and its addenda volume taken of such study before submitting his tender unit rates, which shall be for finished work in site. He shall also carefully study the drawing and additional specifications and all the documents which form part of the agreement to be entered into by the accepted tenderer. The Tamilnadu 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 10 A.M., to 5.45 P.M. of the office days in the office the Estate officer, Tanuvas, Chennai-51. A copy of these of contract documents can also be available only in e portal.

6. The tenders attention is directed to the requirements, for materials under the clause "Materials and workmanship" in the general conditions to contract, materials conforming to the ISI 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 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 material to be obtained from the quarries or other sources defined shall be used on the work. In every case the materials must comply with the relevant standard specifications or in the tender notice, or as required by the Estate officer in any case, shall be submitted for the Executive Engineer' /Engineer in charge approval before the supply to site of work is begun.

The Government will not however, after acceptance of a contract rate pay any extra charges for lead or for any other reason in case the contractor is found later on to have misjudged the materials available. Attention of the contractor is directed to the standard general condition to contract regarding payment of seigniorage tools etc.

8. The tenders particulars of attention is drawn to section and clauses in the standard 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

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

9. As schedule of quantities accompanies this tender notice. It shall be definitely understood that the government does not accept any responsibility on the correctness or completeness of this schedule and that his schedule is liable to alterations by omission deduction or additions at the discretion of the Estate officer, Tanuvas, Chennai-51 or as set forth in the conditions of contract.

10. The tenderer should work out his own rates, without reference being made to the Public Works Department current schedule of rates or the Public Works Department estimate which are not open for inspection by tenders. However, in case tenders called for under the percentage tender system the tenderer should work out his own rate but quote his percentage rate above or below, the total estimate cost of work of the departmental indicated in the tender schedule.

11. The price at which and the source from which certain particular materials shall be obtained by the contractor and given at the end of the schedule accompanying the tender form tenderers must accept the materials at these prices and shall quote their price for finished work accordingly. Notwithstanding any subsequent change in the market value, for those materials, the charge to the contractor will remain as originally entered in the written no centage or incidental charges will be borne by university in connection with this supply.

12. The attention of the tenderers is directed to the contract requirements as to the time or beginning of the work or beginning of work, the rate of progress and the dates for the completion of the whole work and of several parts, the following rates of progress and proportionate value of work done from time to time, as will be indicated by the Estate Officer certificates of the value of work done will be required date of commencement of this programme will be the date on which the site (or premises) is handed over to the contractor.

Period of Contract – Six (6) Months (Including Monsoon)

Period after date of Commencement	Percentage of work completed (Based on the Contract lump sum amount)
I st 2 Months	60%
II nd (2 Months)	40%
III rd (2 Months)	100%

NOTE: The periods to be entered in column for the purpose of defining of the rate of progress may be fixed by the Estate Officer to suit each case.

13. No part of the contract shall be sublet without written permission of the Estate Officer, TANUVAS nor shall transfer be made by power of attorney authorizing others to receive payment of the contractor's behalf.

14. If further necessary information is required the Estate Officer, TANUVAS will furnish such but it must be clearly understood that must be received in orders, and according to instructions.

15. The Estate Officer, TANUVAS or other sanctioning authority has the right to reject any tender or all the tenders.

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16. The tenderer who are themselves not professionally qualified shall undertake to employ the 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 departments specified in the schedule below for the work. In case the selected tenderer is professionally qualified or whether they undertake to employ technical man required by the departments specified in the schedule below for the work. In case the selected tenderer is Professionally qualified or has undertaken to employ technical men under him, he should see that one of the technically qualified men should always be at site of the work during working hours personally checking all the items of works and paying extra attention to such works as may demand special attention e.g. reinforced concrete works etc.

Note (1): Item (1), 2, 3, 4, 5 should be scored-out in case where not applicable to the particular work.

Note (2): A penalty of Rs. 2000/- p.m. for Diploma holder and for Rs. 5000/- for degree holder, believed in the case of default on the part of contractors in following the norms laid down above.

Note (3): The employment of technical assistants would be based only on the value of contract, Engineers, with mechanical engineering qualification and retired from civil engineering departments are also suitable to supervise the civil engineering works because of their experience in civil engineering field.

Note (4): In case the contractor who is professionally qualified and not in position to remain always at the site of the work and to pay extra attention to such as may demand special attention (e.g.) RCC work etc., he should employ technical qualified men (as prescribed above).

Note (5): It will not be incumbent on the part of the contractor to employ Technical Assistant / 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 / Assistants is not required for the due fulfillment of the contract.

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Employment of Technical Personal

Value of contract	
1. Above Rs.1,00,000 /-and upto Rs.5.00 lakhs	1. One diploma holder in Civil Engineering (Or) 2. Not less than one retired junior engineer.
2. Above Rs.5.00 lakhs and Upto Rs.10.00 lakhs	1. One. B.E.,(Civil)(or) 2. Equivalent Degree holder(or) 3. Not less than one retired sub Divisional officers AEE/ADE(or)One Diploma holder with three years experience.
3. Above Rs.10.00 lakhs and Upto Rs.25.00 lakhs	1. One B.E.,(Civil)with 3 years experience plus one Diploma holder in Civil Engineering.(or) 2. Equivalent Degree holder with 3 years experience plus one Diploma holder in Civil Engineering. (or) 3. Not less than one retired Sub-Divisional officer plus one diploma holder in Civil Engineering. (or) 4. Two Diploma Holder in Civil Engineering with 3 years And 5 years experience respectively.
4. Above Rs.25.00 lakhs and Upto Rs.50.00 lakhs	1. One B.E., (Civil) with 3 years experience plus two Diploma holder in Civil Engineering.(or) 2. One B.E., (Civil) with 3 years experience plus two retired junior Engineering.(or) 3. Equivalent Degree holder with 3 years experience plus two Diploma holders in Civil Engineering / two retired junior engineers. (or) 4. One retired Sub Divisional Officer (AEE or ADE) plus two Diploma Holders in Civil Engineering. (or) 5. One retired Sub Divisional Officer (AEE or ADE) plus Two retired Junior Engineers.
5. Above Rs.50.00 lakhs contractor In addition to the Technical personal proposed for values above Rs.25.00 lakhs and up to three years experience Shall be employed.	To be examined in individual cases depending on the nature or work and the technical skill involved and to be defined at appropriate me.

The contractor should offer employment to ex-today tappers as per as possible. The number of ex-today tappers to whom he can offer employment should be mentioned in the tender and they should undertake in the agreement to offer such employment to such number.

17. The contractor shall employ with the provisions of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, this failure will be breach of the contract and the competent authority, may at his discretion, cancel the contract or invoke any of the penalties for breach of contract provided in the conditions of contract. The contractor shall also be liable for the breach of contract provided in the conditions of contract. The contractor shall also be liable for any pecuniary liability arising on account of any violation by him of the provisions of the Act. The contractor shall during the currency of the contract ensure engagement to the apprentices in the categories mentioned below who may be assigned to him by the Director of Employment and Training/State apprenticeship Advisor Tamilnadu, 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 the apprentice as required under the said Act.

Value of contract	Category	No. to be appointed
Rs. 1 lakh and upto Rs. 3 Lakhs	Building constructor	1
	Bricklayer	1
Above Rs. 3 Lakhs and upto Rs. 10 Lakhs	Building constructor	1
	Bricklayer	1
Above Rs. 10 Lakhs and upto Rs. 50 Lakhs	Building constructor	1
	Bricklayer	1
	B.E., (Civil) or Equivalent Degree holder	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 has discharged his obligation under the said Act. "Satisfactory" should be obtained from the Director of employment and Training / state apprenticeship adviser and the same should be produced by the contractor for final payment in the settlement of the contract.

18. The contractor should employ one I.T.I. trained mason for every ten masons of part thereof in case of non-availability of I.T.I. trained masons, the contractor should obtain the prior approval of the Estate Officer, TANUVAS concerned, before proceeding with the contract with other kind of masons.

19. The contractor shall be solely responsible for the payments of Sales Tax/ GST under the provisions of the Madras Central Rule tax Act 1939 (Madras Act 11 of 1939) in force for various items of work time being and the rates for the various items of work shall remain unaffected by any changes that may be made from time to time in the rate at which such tax is payable. Sales tax / GST and the materials supplied to the contractor as amended from time to time shall be paid by them separately and the relevant challans produced to the departmental officers.

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20. Statement given brief particulars for equipment and resources that will be put at disposal of the work under the following classifications should accompany the tender.

1. Lorries

2. Concrete Mixers
3. Needle Vibrator
4. Mechanical spray set for curing
5. Building host
6. Centering materials or very good quality
7. a. Column moulds at least 50% of column sizes provided in plain
b. Organization (i) Technical (ii) unskilled
Resources in materials like teak wood etc., and extent up to which departmental help required for procurement of materials and transport of same.

21. The Estate Officer, TANUVAS, reserves to himself the right of allotting the different sub-works to the different contractors or to one and the same contractor as they may decide after the receipt of tender.

22. Additional security to be furnished for the lesser rates. On evaluation of tender, if it is found that if the overall quoted amount of the tender is less than 5 to 15% of the value put to tender, the contractor shall pay an additional security at 2% of the estimated value. If the tender discount exceeds 15% to 20% the contractor shall pay an additional security deposit of 50% of the difference between the quoted amount and estimate amount. Failure to furnish the additional security deposit within 15 days from the date of receipt of acceptance order and execute the agreement shall entail cancellation of award contractor and forfeiture of EMD furnished. (As per G.O. MS. No. 555PW (G2)/ Dept, Dated: 17.11.1999) The additional amount deposited will be refunded only after completion of the works along with the final bill.

23. In case of contractor for construction of building either permanent or semi-permanent buildings, a sum of equivalent to 2½% of the value work done will be retained from the Government for a period of one year reckoned from the date of completion of the work in order to enable the departmental officer to watch the effect fall seasons on the work done by the contractor. The amount so far retained with the Government will be returned only on the expiry of one year period referred to above and on execution of indemnity bonds by the contractor for a further period of four years. The contractor shall be liable to set right all defects arising out of his faulty execution or sub-standard work noticed during the above five years period at his cost.

24. The contractor is bound by all the conditions of the clauses of the general conditions of contract amended from time to time.

25. In the event of work if transferred to any other who is in-charge of the jurisdiction over the work shall be competent to exercise all the powers and privileges reserved in favor of the Government.

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SCHEDULE- A

Schedule of rates and approximate quantities

1. The quantities here given are those upon which the lump sum tender cost of the work is based but they are subject to alterations, omissions, deductions or additions as provided for in the conditions of this contract and do not necessarily show the actual quantities of work to be done. The unit rates noted below are the governing payment for extra or deductions for omissions according to the conditions of the contract as set forth in the general conditions of contract of TNBP and other conditions (or) specifications of this contract.
2. It is to be expressly understood that the measured work is to be taken that (Notwithstanding any custom or practice to the contrary according to the actual quantities when in place and finished according to the drawings or as may be ordered from time to time by the Estate Officer, TANUVAS and cost calculated by measurement or weight at the respective prices, without any additional charge for any necessary and contingent works connected therewith. The rates quoted are for works in site and complete in every respect.

Item No.	Probable qty (Figures)	Description of work	TNBP No	Rate (Words & Figures)	Unit (in words)	Amount (figures) Rs. P
		Vide separate schedule attached PRICE BID (BOQ)				

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SCHEDULE-B

LIST OF DRAWINGS

Note: All drawings to be designed by the contractor as well as the officer entering into the contract.

SUPPLEMENTAL LIST

As referred to in the specification including the General Conditions of contract in Tamil Nadu Building practice

Sl. No	Drawing No	Description	Sl. No	Drawing No	Description	Date on which the drawing was supplied
(1)	(2)	(3)	(4)	(5)	(6)	(7)
Name of Work : Establishment of Advanced Training centre for Animal Birth Control Program at Madras Veterinary College, Chennai-07.			PLAN SECTION & ELEVATION			

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SCHEDULE-C

List of specifications for the various items of work supplementing those described in Schedule A by standard specification numbers.

1. The contractor shall employ the following technical staff or supervising the work and shall see that one of them always at site during working hours personally checking all items of work and paying extra attention to such works as may demand special attentions e.g. Reinforced cement concrete works etc.

Name of the members of the technical staff to be employed	Qualification
Refer PAGE 5 to 6	

2. 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 note the arrival and the departure timings every day along with their initials. Such register should be produced during inspection of the Inspecting Officer.
3. 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.

EXTRACT OF AMENDMENT

Amendment to clause 69.1 of General Conditions, contract based on orders in G.O.Ms.No.1152/PW/DT.19.6.80.

MODIFICATION AND AMENDMENT G.O.Ms.No.1844PWDt.18.07.1986

Cause-69 – 1 – of General conditions of contract:

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 determination, abandonment or breach of the contract or as to any other matter or thing arising there under except as the matters left to the sole discretion of the Estate Officer, TANUVAS under clause 18, 20, 25-3-27-1, 34, 35 and 37 of General conditions of contract or as to the withholding by the Estate Officer, TANUVAS of the payment of any bill to which the contractor may claim to be entitled, the either party shall forth with give to the other notice or such of difference and dispute or difference shall be and is hereby referred to the arbitration of the Estate Officer, TANUVAS of the nominated circles mentioned in the articles of agreement (herein after called the Arbitrator) in cases where the value of claim is less than or upto Rs.50,000/-.

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

SPECIAL CONDITION FOR ERADICATION OF CHILD LABOUR

G.O.(MS)No.53 Labour and Employment(VII) Department/Dated 12.5.03

The work contract assigned to the Contractor's shall be cancelled if they engage Child Labour in executing works and such Contractors should be, black listed for three years.

PART –IV

SPECIAL CONDITIONS

1. Clean fresh water and drivers sand shall be used in all class
2. Only clean fresh water shall be used on the work. The contractor shall make his own arrangements for water and shall meet all charges therefore the special attention of the contractor is drawn to clause 36 General conditions of contract regarding water and lighting.
3. The broken stone for concrete and RCC works should be graded and passed by the Estate Officer, TANUVAS.
4. All iron work or steel work of every kind except steel rods that are to be embedded in cement concrete shall immediately arrive at the site and properly scrapped and wire brushed and given a printing coat of approved lead pointing without claiming extra.

5. HOLDFASTS:

Iron holdfasts shall be fixed in the walls using cement mortar 1:3 for that portion of fixing at the time of construction of walls. It should be mixed with cement concrete 1:3:6 using 20mm gauge broken granite stone jelly for proper anchorage and binding. No separate rate for such pockets of concrete filling at holdfast points and for using C.M. 1:3 for that portion will be allowed and this will be measured as masonry along with adjacent masonry.

6. WOOD:

Teakwood shall be best Indian Teakwood only and shall be subject to inspection and approval by the Executive Engineer before use on the work. Country wood where specified shall be Karumarudu, Pillamarudu, Kongu, Veteak for scantling and Manja Kadambu, Aiyini for planks as may be specified and approved by the Estate Officer, TANUVAS

7. Holes and charges of electric wiring, water supply and drainage etc., shall be provided as directed during progress of work without any claiming extra.
8. The work will be carried out with the least hindrance to the adjoining building and offices and the contractor will be responsible for any damages, caused to the existing fixtures electric fitting etc., in the course of execution and the contractor shall make good of damage without claiming extra.

9. T.BEAMS:

In the case of T Beams and L beam the quantity given in the schedule is the quantity of the rib portion only. The top flange portion will be always measured with the general slab portion and paid for at the slab portion only. For all RCC works the rate shall include the treatment of bearing as per specification No. 30 of TNBP.

10. CONCRETEWORKS:

All exposed concrete surface will be required to be finished by cement plaster as per specification No. 30E (a) of TNBP.

11. PLASTERING CONCRETE:

All corners shall be finished sharp using C.M. 13 not exceeding 3 inch width on each side of the corner. So also the edges of beams of door and window openings offits, shall be finished sharp using rich mortar and finished truly vertical or horizontal as the case may be. The unit rate quoted by the contractor for plastering shall be inclusive of the cost of finishing as above and so separate claim for extra rate will not be entertained. However, the cement utilized for the work will be taken into consideration in the adequacy statement for issued of departmental cement to the contractor.

12. WORKS IN DIFFERENT FLOORS:

If separate rate is not called for, for execution of similar items of work in different floors, then, single rate quoted will alone be entertained uniformly for execution of such items of works in different floors. No claim for extra rate will be entertained under any circumstances.

13. The Estate Officer, TANUVAS reserves the right to split up the work and entrust the main work, internal water supply and sanitary arrangements to different contractors.

14. The protection if any to the masonry will be measured under the relevant items and no extra will be paid for finishing the same.

15. Payments for centering works for all RCC items shall be made only after the concrete is laid, even though separate rate is called for, for centering works in the schedule.

16. Concrete for R.C.C. works

All cement concrete for RCC works shall be machine mixed and vibrated properly as per the standard specification and direction of the Engineer in charge and with the quality assurance procedures.

Additional specifications

1. The arrangements of M.S. Rods for reinforcement for such RCC work shall be in accordance with departmental drawing supplied.
2. The planks for forms and centering for RCC work shall be of well seasoned timber approved by the Estate Officer according to clause 8 of TNBP 30. They must be made smooth and even perfectly level to top so as to give smooth and even finish to the RCC ceilings alternatively the contractor should use steel sheet over wooden firms centering and form work shall be provided to the extent and as ordered by the Engineer-in-charge during the execution.
3. All time mortar shall be ground mixed in mortar and will be as per T.N.B.P.
4. M.S. steel rod should be cut and placed as reinforcement with proper care according to the available rods at site so as to ensure the minimum possible wastage.
5. Ordinary the contractor shall be responsible for the collection of all materials required for the work.
6. The required G.I. Pipes if available will be supplied free of cost of site of work. The Surplus G.I. Pipes if any will be returned in good condition to the department failing which double the cost at market rate plus percentage charges will be recovered from the contractor.
7. Construction Materials;
Supplemental to clause of any 20 of General conditions.

Cement:

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

- a) The contractor shall procure cement required for the work only from reputed cement factories (Main producer or their authorized agents, manufacturing cement at I.S.I. standard) acceptable to the Engineer-in-charge. The contractor shall be required to furnish to the engineer-in-charge bills of payment and test certificates issued by the manufactures or their authorized agents to authenticate procurement of quality cement from the approved cement factory. The contractor shall make his own arrangements for safe haulage and adequate storage of cement.
- b) The contractor shall procure in standard packing of 50kg per bag from the authorized manufactures. The contractor shall make necessary arrangements at his own cost to the satisfaction of Engineer-in-charge for actual weightment of random sample from the available stock and shall conform with the specification laid down by the Indian standards institution 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 at least one month on advance before the use of cement bags brought and kept on site godown.

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- c) The employer will furnish air retraining 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 tendered for concrete.
- d) The contractor should store the cement of 60 days requirement at least one in advance to ensure the quality of cement brought to site and shall not remove the same without the written permission of engineer-in-charge.
- e) The contractor shall forthwith remove from the work area and cement that the Engineer-in-charge may disallow for use on account of failure to meet with required quality and standard.
- f) The contractor will have to construct sheds for storing cement having capacity not less than the cement required for 90 days use at approved locations. The Engineer-in-Charge of the representatives shall have free access to such store at all times. The contractor shall further at all times satisfy the Engineer-in-charge on demand by production of records and test 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 at all times, keep his record up to so as to enable the Engineer-in-Charge to apply such checks as they may desire.
- g) 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 works 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 by cement complying with the relevant Indian standards.

Steel

The contractor shall provide mild steel (MS) reinforcement basis, High yield strength deformed (HYSD) bars, rods and structural steel etc., required for the works only from the main and secondary producers manufacturing steel or other authorized agents to the prescribed specifications Bureau of Indian standards requirements and licensed to affix I.S.I. test certificate issued by the Govt. approved laboratory certification marks and acceptable to the Engineer-in-Charge, necessary I.S.I. test certificate are to be produced to Engineer-in-charge before use on works.

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The diameters and weight to steel should be as follows:

S.No.	Diameter of rod	Sectional weight in kg per running metres both for plain & HYSD steel
1.	6 Millimeters	0.22
2.	8 Millimeters	0.39
3.	10 Millimeters	0.62
4.	12 Millimeters	0.89
5.	14 Millimeters	1.21
6.	16 Millimeters	1.58
7.	18 Millimeters	2.00
8.	20 Millimeters	2.47
9.	22 Millimeters	2.98
10.	25 Millimeters	3.85
11.	28 Millimeters	4.83
12.	32 Millimeters	6.31
13.	36 Millimeters	7.99
14.	40 Millimeters	9.86

Note: if any rods other than those specified above are used, the weight shall be as per standard steel tables.

ADD NEW CONDITIONS FOR GOODS AND SERVICE TAX (GST)

1. All rates quoted in the shall inclusive of all duties, taxes, royalties, fees, tolls, insurance, other levies if any except Goods and Service Tax (GST) payable by the contractor under the contractor for any other cause shall be included in the rates submitted by the tenderer.

2. The Government of India has notified vide notification no.47th of GST council on 29.06.2022 has revised and recommended to 18% GST. The Government of Tamil Nadu Commercial Taxes and Registration Department also made changes in GST rates for work contract to 18% vide G.O.(Ms) No.114 / Commercial Taxes and Registration (B1) Department / Dated.22.07.2022. The rate of GST at 18% (CGST 9% + SGST 9%) is leviable for any Government Contract whether Civil or Electrical irrespective of the GST rate applicable on purchase of goods used in the execution of Government contract works. The GST amount will be calculated at 18% of sum of tender value (excluding GST) entered by the tenderer for the construction cost specified in BOQ subject to GST rate applicable as amended from time to time.

3. As per notification 202 section 7 subsections 2 of the Tamil Nadu Goods and Services act 2017 (Tamil Nadu act 19/2017) activities or transaction under taken by State Government shall be treated neither as supply of goods nor supply of services.

4. As per Public Works Department Schedule of Rates under general note 8(ix), the contractor is eligible to get refund of excess tax paid or liable to pay tax for this contract.

5. As per chapter IX (Section 41) of Tamil Nadu Goods and Services act 2017 every registered person may be entitled to the credit of eligible input tax, as self-assessed, in his return and such amount shall be credited on provisional basis to his electronic credit ledger and the contractor need to pay the GST amount towards his GST Registration No.

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6. The TDS at the rate of one percent for SGST and another one percent for CGST shall be deducted in each bill.

a. INPUT TAX CREDIT (ITC):-

- a) As per Notification 202, dated 20.06.2017 and as per sub-section (2) of Section 7 of the Tamil Nadu Goods and Services Act, 2017, (Tamil Nadu Act 19 of 2017), activities or transactions undertaken by State Governments shall be treated neither as supply of goods nor a supply of service
- b) As per Chapter IX (Section 41) of the Tamil Nadu Goods and Services Act, 2017, every registered person may be entitled to take the credit of eligible input tax, as self-assessed, in his return and such amount shall be credited on a provisional basis to his electronic credit ledger.
- c) As per PWD Revised SOR (2017-18), dated 21.10.2017, under General Note, 8(ix), the Contractor is eligible to get refund of excess tax paid over or liable to pay tax for this Contract Work.

1. In addition to the Security Deposit, retention amount shall be deducted from the running account bills, as an equivalent to 5% (Five Percent) of the total value (including the Goods and Service Tax (GST) Amount for all the running account bill) of each bill as retention money.

2. Out of the above 5% retention amount, 2 1/2% (Two and Half Percent) of the total value of the works 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.

3. The balance 2 1/2% will be retained for a period of two years 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.

4. 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 Department, shall be refunded to the Bidder without interest after the defects liabilities attached to the contract is over.

9.a. Part or complete payment will be made only in satisfactory completion of work in full / part thereof and value of work executed shall be determined, based on the measurements and check measurements by the Engineer in the Measurement Book.

b. For every Bill, 18% of GST will be paid to the Contractor based on the value of work done for Construction by the Employer. After the payment including 18% 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 works 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 detail on goods (materials) to the Employer for ITC.

c. INTERMEDIATEBILLPAYMENT:-

Atthetimeofpaymentfornextrunningaccountbills,thecontractorshouldproducetheGST paiddetailsofservicesuptopreviousbillpayment(i.e.GSTpaiddetailforthepreviousworkbill) alongInputTaxCredit(ITC)availedatthetimeofpaymentof intermediate billtotheemployer.

d. FINALBILLPAYMENT:-

TheContractorshouldproducetheGSTpaiddetailsforallthematerialsusedforconstruction work,andGSTpaiddetailsofservicesfortheup topreviouspayment(ie.,GSTpaiddetailforthe uptopreviousworkbill)to theEmployeralongwith InputTaxCredit (ITC)availedatthetime of payment of final bill to the employer.

e. SUBMISSIONOFGSTPAIDDETAILSOFFINALBILL:-

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.

10. Itistobeexpresslyunderstoodthatthemeasuredworkistobetakennet(Not withstandinganycustomerpracticetothecontrary)accordingtotheactualquantities.Whenin placesandfinishedaccordingtothedrawings,orasmaybeorderedfromtimetotimebythe Collector and the cost calculated by measurement or weight at the respective prices, without any additionalchargeforanynecessaryorcontingentworksconcernedtherewith.Theratesquoted ExcludingGSTAmountareforthefinishedworksinsituandcompleteineveryrespect.

TenderAcceptedwithViolentExcess orUnworkableRates:

Thetenderisacceptedwithexcess rates (+) 15%andaboveforcertainitems, the quantityofworkundersuchitemsshouldnotexceedonanyaccountduring execution. On the sameanalogy,itshouldbeensuredthatthequantityforitemsofworkwithunworkableandlow ratesi.e.lessthan10%oftheestimatesrates,arenotreducedduringexecution.

TOTALTENDERPRICE

The total tender price will be the cumulative of value quoted for construction (Total Basic Rate + GST), TheamountofEMDisfixedat1%approxofthecontractvalueofworkputto tender (includingtheGST Amount)” (as per the norms)

NEGOTIATIONS

The lowest tenderer will be identified who quotes lowest total tender price which including GST as per the clause **10(3) of Transparency in tender act 1998**. 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 18% of the sum of the Negotiated 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.

AWARDOFCONTRACT

To be substantially responsive to the bidding documents and who has offered the lowest evaluated total tender price (Total Quoted Value including the Goods and Services Tax (GST) Amount).

MINIMUMCRITERIAFORQUALIFICATION

The Applicant should produce Income Tax Clearance Certificate valid for the current period and copy of Goods and Services Tax (GST) Registration No.

ADDITIONALCONDITIONS:1

1. The contractor be responsible for the safe custody and storage of materials under any conditions of the places where the works are approved by the Executive Engineer.
2. No royalty shall be charged where due for materials, quarried from the public works department of district board of their government quarries, assistance as necessary will be given to the contractor but the P.W.D., to obtain access to quarries approved by the PWD / Estate Officer, TANUVAS. No plot rent shall be charged for materials stocked in the Government land during the course of construction provided such materials are removed within the month after the work is completed.
3. Royalty (or) charges due for use of private quarries and private and shall be paid by the contractor.
4. The contractor shall form his own approach road to the works site for which no extra will be due to him. On completion of work, the contractor shall not be permitted to remove the materials, laid for formation of road if the contractor, is allowed to use the existing road he shall maintain them in good condition at his own cost, throughout the period of the contract.
5. Any surplus materials remaining at the site will not be generally taken over by the department whether before or after the completion or determination of contract. Such materials either which were originally produced by the contractor (or) were issued to them by the department and charged to their accounts are the property of the contractor and can however be taken over by the department if required for use on other which are in progress only the special arrangements and at the prevailing market rates viz., the rates at which the article or articles of a similar description can be procured at a given time from public market. If the materials were originally used by the department the price allowed to the contractor on requisition shall not exceed the amount charged to the contractor excluding the cost of storage charges if any.

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6. The surplus materials which were originally issued to the contractor by the department for use in the work shall not be removed from the site of work without getting the written permission of the Estate Officer, TANUVAS (or) Engineer-in-charge.
7. The contractor's special attention is invited to clause 35,36 and 37 if TNBP and he is requested to provide at his own expense sheds, latrines and urinals for his workers.
8. If night works is required to fulfill the agreed rates of progress all arrangements shall be made by the contractor inclusive of lighting without any claim for extra rates.
9. The contractor shall not employ the labour below the age of 12 years and shall also note that he must offer employment to Ex-servicemen ex-toddy tappers and unemployed agricultural labourers as far as possible.
10. Any of the item in the schedule may be omitted or radically altered. No variation in rate shall become payable to contractor on account of such omissions (or) variation in quantities. Reference to TNBP in the schedule of quantities referred to printed. 1985 and 1988 and addenda and corrigenda issued thereafter.
11. The construction of building will be deemed to be completed only if any item of works including finishing item of works contemplated therein are executed.
12. The contractor shall abide the contractor's labour regulation or the P.W., Framed by the Tamilnadu Government.
- 12.a. All the contractors and sub-Contractors hired by main contractors shall engage construction workers registered with the construction Workers welfare board as required under the building and other construction works (Regulation of employment and condition of service) Act 1996 (Central Act 27 of 1996)
13. In respect of all contract with contract value exceeding Rs.5,000/- income tax 2% of the gross of amount irrespective of the bill amount payable to the contractor will be recovered at source.
14. The sales tax clearance certificate should be furnished before the finalization of contract.

15. (a). E.M.D: Mode of Payment Online only

(b). Security deposit:

In case of contractors for building works the security deposit (i.e.2%) of the value of contract including GST amount minus the E.M.D. already remitted is to be produced in the shape of small savings scripts, deposits, accounts duly pledged to Estate Officer, TANUVAS, Chennai-51 of the Division concerned before signing the agreement.

17. Risk Insurance:

The work executed by the contractor under these contract shall be maintained at the contractor's risk, until the work is taken over by the Estate Officer, TANUVAS. The Government/university shall not be liable to pay for any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earthquake, other convulsion of nature calamities, risks arising out of acts of God during such period and that the option whether to take insurance coverage or not to cover such risks is left to the contractor.

18. Standards specifications:

For detailed description of various items of works to be executed in addition to the brief description given in the schedule A and for the rights and obligations of the contractors etc., the attention of the contractor is invited to Tamil Nadu building practice which should be followed in all respect both in letter and spirit. The materials used, the workmanship, the mode of execution of the work etc., should confirm the relevant specification on TNBNP.

19. Safety code:

The safety measures and all amenities for the labours shall be made by the contractor at his cost as indicated in the safety code vide appendix to general conditions to contract and clause 34, 35 and 42-1 to 42-7 of general conditions of contract.

WITHHELD AMOUNT:

The withheld amount at 5% be recovered from each bill based on the value of work done.

RETENTION (OR) WITHHELD AMOUNT

1.1) 2 1/2 % of the total value of the work (including GST and Security Deposit) will be retained in the final bill of the work for a **period of Two years reckoned** from the date of completion of the work in order to enable TANUVAS to watch the effect of all seasons of the work. An indemnity bond should be furnished by the contractor for a further period of Three years. If any defects are noticed in the above said period **of Three years, the defect should be rectified** by the contractor at his own cost as directed by the TANUVAS authorities and no payment will be made for the rectification of such work. EMD and ASD already paid shall be adjusted for the 2 1/2 % retention money and .(As per the rules of ASSR TANUVAS)

1.2) Retention of 2 1/2% for one year: (Value More than Crore major works) against Bank Guarantee/Indemnity bond:

In case of contracts for construction of buildings either permanent (or) semi-permanent buildings as per equivalent to 2 1/2% of the value of work done will be retained with the university for a period of one year reckoned from the date of completion of the work done by the contractor. The amount so retained with the Government will be refunded only on expiry of one year period referred to above and on execution of indemnity bond by the contractor for a further period of four years. (As per the rules of ASSR TANUVAS)

The contractor shall be liable to set right all defects arising out of his faulty execution (or) sub-standard work noticed during the above five years period at this cost.

In addition to the aforesaid security deposit, retention amount shall be deducted from the running account bills, as an amount equivalent to 5% (Five percent) of the total value (including the Goods and Service Tax (GST) Amount for all the running account bill) of each bill as retention money out of the 5% retention amount, 2 ½ % (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.

And the balance 2½% 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.

The retention money of 2½% including GST (Two and a Half Percent) of the total value of contract after deducting any amount due to the Department, shall be refunded to the Bidder without interest after the defects liabilities attached to the contract is over.

In addition to the aforesaid security deposit, the Estate Officer shall deduct from the running account bills, an amount equivalent to 5% (Five percent) of the total value of each bill and 2.5% (Two and half percent) of the final bill as retention money. This retention money in the shape of irrevocable Bank Guarantee will also be accepted.

20. Recovery of dues under revenue recovery act:

Any amount fall due from the contractor on account of this contract even after recovering from the bills for this work and any other contract awarded to the contractor than the amount is liable to be recovered under the provision of Revenue Recovery Act.

Additional condition of contract: 1

1. The contractor shall at his own expense provide arrangement for the provision of footwear for any labour doing cement mixing work and all other similar type of work involving the use of tar mortar etc, to the satisfaction of the engineer in charge and on his failure to do so Govt. shall be entitled to provide same and recover the cost from the contractor.
2. When there are complaints of non-payment of wages to the labour bills of the contractor may be withheld pending a clearance certificate from the labour department.

ADDITIONAL CONDITIONS.III

Rules for the provision of Health and Sanitary arrangements for workers employed by the P.W.D., and their contractors.

The contractor's special attention is invited to relevant clauses of general conditions of contract in the TNBP and he is requested to provide at his own expense the following amenities to the satisfaction of the Estate Officer, TANUVAS

1. First Aid:

At the worksite, there shall be maintained in a readily accessible place, first aid appliances and medicines including supply of sterilized dressings and sterilized cotton wool. The appliances shall be kept in order. They shall be placed under the charge of responsible person who shall be readily available during working hours.

2. Drinking water:

- a. Water of good quality fit for drinking purposes shall be provided for the work people on scale not less than fifteen litres per head per day.
 - b. Where drinking water is obtained from an intermittent public water supply system each workplace shall be provided with storage tank where such drinking water shall be stored.
 - c. Every water supply and storage shall be at a distance of not less than 15m from any latrine drain or sources of pollution where water is to be drawn 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 waterproof.
2. A reliable pump shall be fitted to each covered well, the trap door shall be kept locked and opened only for cleaning or in section which shall be done at least once in a month.

3. Washing and bathing places

Adequate washing and bathing places shall be provided separately for men and women, such bathing places shall be kept in clean and drained condition bathing (or) washing should not be allowed in or near any drinking well.

4. Latrines and urinals

They shall be provided within premises of every work place latrines and urinals in an accessible place and the accommodations separately for each of them shall be on following scale or on the scale as directed by Estate Officer, TANUVAS / Engineer-in-charge in any particular use.

1. Where the No. of persons employed does not exceed 50-2 seats
2. Where the No. of persons employed excess 50 but does not exceed 100-3 seats.
3. For every additional 100 persons- 3 seats. If women are employed separate latrines and urinals screened from these for Men shall be provided on the same scale. Except in work place provided with water flush out latrines connected with a waterborne sewage system all latrines shall be provided with receptacle on dry earth system which shall be cleaned at least four times daily and at least twice during working hours and kept in strictly sanitary condition. The receptacle shall be tarred inside and outside at least once a year. The excreta from the latrines shall be disposed off at the contractor's expenses in outway pipe approved by the local public health authority. The contractor shall also employ adequate No. of scavenger to keep the latrines and urinals in a clean condition.

5. Shelters during rest

At every work site there shall be provided free of cost two suitable shed one for meals and other for rest separately for men and women for the use of labourers.

6. Creches:

At every workplace at which 50 or more women ordinary employed here shall be provided two huts of suitable site for the use of children under the age of 6 years, belonging to such women one hut shall be used for infant's games and play and the other as their bed room. The hut shall not be constructed on lower and arid than the following.

1. Detached rooms
2. Mud floors and walls
3. Plants spread over the mud floor and covered with matting.

The site of the creches should vary according to the No. of women workers. The creches should be properly maintained and necessary equipment like toys etc., shall be provided huts shall be provided with suitable and sufficient sweepers to keep the place clean. There shall be Ayes in readiness, Sanitary urinals shall be provided to the satisfaction of the health officer of the area concerned.

The No. of huts shall be restricted to children their attendants and mothers of the children.

7. Canteen:

Cooked food canteen on a moderate scale shall be provided for the benefits for the workers as it is considered expedient.

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8. Shedsforworkmen

The contractor should provide at his own expense ahead for housing the workmen. The shedsshall beon standardnotlessthanthecheapershelvertypetoliveinwhichthework peoplepertaininginthelocalityarea costumed to.A floor area of1.80mx1.30mfortwo people'sshallbe provided. The shedstobeinrowswith1.3maclanspacebetweenshedsand 9mclearspacebetweenrowsifcondition permit. The workpeoplecamp shall be laid out in unitsof400persons each unit tohavea clear space of12malround.

Additionalcondition:IV

Safety provision in the building industry condition in addition to clause 42 of preliminary specification T.N.B.P.

Article-1:

PART-1

1. Suitablescaffoldsshallbeprovidedforworkmenforallworkthatcannotbesafetydone from ladder or by other means.
2. AScaffoldshallnotbeconstructedtakendownorsubstantiallyalteredexcept.
3. a.underthesupervisionofthecompetentandresponsiblepersonsand
c. Byasfaraspossiblecompetentworkerspossessingadequateexperienceinsuchkind of work.
4. Scaffoldsshallbesoconstructedthatonpartthereofcandisplacedinconsequenceof normal use.
5. Scaffoldsshall notbeoverloadedoneasfaraspracticable theloadshall beevenly distributed. Before installing lifting gearorscaffolds, special precaution shall betaken to ensure the strength and stability of the scaffolds.
6. Scaffoldsshallbeperiodicallyinspectedbyacompetentpersons.
7. Before allowing a scaffold to be used by the workmen every employer shall whether thescfold has beenexecuted by his workmen or not take steps to ensure that itfunctions fullwith the requirements of this articles.

Article-2.

1. Workingplatformsgangwaysandstairwaysshallbesoconstructedthatpartthereofcan save unduly (or) equally.
2. Tobesoconstructedandmaintainedtoobviatefromrisksofpersonstriplingorslipping and to be kept free fromanyunnecessaryobstructions.
3. Everyworkingplatformgangwayworkingplaceandstaircaseshallbesuitablytested.

Article-3.

1. Every opening in the floor of a building or a working platform shall except for the time and to extent required to allow the access of persons or the transport or shifting of materials be provided with suitable means to prevent the fall of persons or materials.
2. When persons are employed on a roof there is danger of falling from height exceeding than to be prescribed by national laws of regulation suitable precautions shall be taken to prevent the fall of persons or materials.
3. Suitable precautions shall be taken to prevent persons being struck by articles which might fall from scaffolds or other working places.

Article-4:

1. Safe means of access shall be provided to all at working platforms and other working places.
2. Every ladders shall be securely fixed and of such length as to provide securely hand–hold and foot hold every position which it is issued.
3. Every place where work is carried out and the means of approach thereto shall be adequately lighted.
4. Adequate precautions shall be taken to prevent danger from electrical equipment.
5. No matter is on the site shall be constructed or placed as to cause danger to any persons.

Article-5 (General rules as to hoisting appliance): Article: 3)

1. Hoisting machines and tackle including their attachments in charges and supports shall
 - a. Be of good mechanical construction sound materials and adequate strength and free from patent effect and to be kept in good working order.
 - b. Every rope used in hoisting or lowering material on a same means of suspension shall be suitable quality and adequate strength and free from patent defect.

Article-6:

1. Hoisting machines and tackle shall be examined and adequately tested after erection on the site and before use and re-examined in position at intervals to be prescribed by national law of regulations.
2. Every chain ring, book shackle level and pulley block used in hoisting or lowering materials or a same means of suspension shall be periodically examined.

Article-7:

1. Every crane driver or hoisting appliances operator shall be properly qualified and
2. No persons under the age of 21 years shall be in control of any hoisting machine including any scaffold which or give signals to the operator.

Article-8:

1. In the case of every hoisting machine and of every chaining hood 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.
2. Every hoisting machine and all gear referred to above shall be plainly marked with the safe Working load. In the case of hoisting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.
3. No part of any hoisting machine or any gear referred to above in this paragraph shall be loaded beyond the safe working load except for the purpose of testing.

Article-9:

1. Motor gear, transmission electric, wiring and other dangerous part of hoisting appliance shall be provided with efficient safe guards.
2. Hoisting appliances shall be provided with such means as will request to a minimum the risk of the accidental descent
3. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load being wing accidentally displaced.

PART-III

GENERAL RULES, TO SAFETY EQUIPMENT AND FIRST AID:

Article-10:

1. All necessary personal safety equipment shall be kept available for the use of the persons employed on the site and be maintained in a condition suitable for immediate use.
2. The workers shall be required to use the equipment provided and the employer shall take adequate steps to ensure proper use of the equipment by those concerned.

Article-11:

When work is carried on in proximity to any place where there is a risk of danger all necessary equipment shall be provided and kept ready for use and all necessary steps be taken for the prompt removal of any persons in danger.

Article-12:

Adequate provisions shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Article-13:

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Where large work places are situated in cities, town or in the sub-urban and no beds are considered necessary owing to the proximity of city or town hospital, suitable transport shall be provided to facilitate removal of urgent cases to hospital at other work places, some conveyance facilities such as cabs shall be kept readily available taken injured persons or persons suddenly taken seriously ill to the nearest hospital.

General specifications:

1. Cement concrete flooring tiles shall be manufactured from mixer of cement natural aggregates and colouring materials where required by pressure process. Fixing manufacture the tiles shall be subjected to a pressure not less than 140kg/cm².
2. Proportion of cement to aggregate in the backing of the tiles shall be not less than 1:3 by weight.
3. On removal from mould, that tile shall be kept in moist continuously at least for 7 days and subsequently if necessary for such a longer period that would ensure their conformity to the requirements to Trayanse strength resistance of wet and water absorption and would Minimize shrinkage and cracking, tiles shall be stored under covers.
4. Tolerance: tolerance on length and breadth shall be plus or minus one millimeter. Tolerance on thickness shall be plus 5mm, the range of dimensions if any of one delivery of tiles shall not exceed 1mm, length and breadth and 3mm, on thickness.

5. THICKNESS OF WEARING LAYERS:

Class of tiles	Minimum thickness Of wearing layer
Plain cement and plain colored tiles general purpose.	3mm
Plain cement and plain colored tiles for heavy duty	6mm
(Mosaic) terracotta tiles with chips of size varying from the smallest upto 6mm.	5mm
(Mosaic) terracotta tiles with chips 12mm size ranging from the smallest upto 12mm, or 1/2"	5mm
(Mosaic) terracotta tiles with chips of size varying from the smallest upto 20mm or 3/4"	6mm

6. Colour and appearance: The colour and texture of the wearing layers shall be uniform through its thickness.
7. When specifying the tiles, the contractor should specifically indicate whether the chips to be used are from the smallest to 20mm, size. The officers of the department shall also specify size of chips by referring the approximate photograph given in Indian standard No. 1237/1959.

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8. General quality of tiles

Unless otherwise required the wearing face of the terrace tiles shall be mechanically round and filled. The bearing face of the tiles shall be placed, free from projections, depression and cracks (Hair cracks not included) and shall be reasonably parallel to the back face of tiles. All angles shall be right angles and all edges shall be sharp and true.

9. BREAKING TRAVERSE STRENGTH OF TILES SHALL BE GIVEN AS BELOW:

Size of tiles cm.	Span cm.	Breaking wet test cm. kg.	Land based dry test Kg
19.85x19.85	15	71	105
24.85x24.85	20	90	120
29.85x29.85	25	99	149

10. The average wet of not less than 12 specimens shall not exceed 2mm. and the weather any individual specimen shall not exceed 2.5cm. When tested in an abrasion testing machine.
11. The average percentage of water absorption not less than six full tiles, specimen, shall not exceed ten in the case of water absorption test.
12. The density of the tiles shall be in the order of amount 2.4gms. the tiles shall be laid with the minimum possible width of joints and not exceeding 1/32 inches. The joints shall be filled with grey cement to match the finish of the tiles and shall be made almost invisible when the floor is given the final polish. The polishing shall be done by means of electric polisher wherever possible and hand polish to other places like vertical faces, or wall covers and other areas where the machines can have not access and glossy, surface as even as possible.

All angles at junction of vertical faces shall be rounded of the 1 1/2" radius with same quality of materials and colour of the tiles of the floor. But laid in situ and these coves shall be measured as part of flooring and paid for at the same rates as the flat floors. The colour of the tiles shall generally match other coloured face adjustment or as may be directed by Estate Officer, TANUVAS / Engineer-in-charge.

The dadoing and skirting have to be finished by giving necessary, faces in the brick wall itself so that the projection does not exceed 1/2" from the face of the wallies, the finish plastered surfaces. Based on the modulus of rupture of 30 kgs/cm² for dry test and two third of the value of wet test.

GUIDELINES FOR ADDITION OF STRENGTH GARDENING OF CONCRETE:

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Plain and reinforced concrete have been graded according to the cube compressive strength and designated as M10, M15, M20, M25, M30 and M40. The designation of concrete the letter refers to the mix and the number to the specified 28 days work cube compressive strength of that mix expressed in Kg/cm².

Approximately the M.10, M15, M20 and M25 grades of concrete corresponds 1:3:6, 1:2:4, 1:1 1/2:3, 1:1:2 nominal mixes of ordinary concrete used.

The proportion aggregate cement and water to be used for controlled concrete shall be designed by preliminary tests of material to be actually used to obtain and specified strength with the use of minimum quantity of cement, however the maximum total quantity of aggregate by weight per 50 kg of cement shall not normally exceed 450 kg.

For any particular item, compressive strength required to be obtained by the concrete at 28 days in the preliminary and work tests on the 15 cm. cube minimum cement concrete required to be used and the approximate proportions of approved fine and coarse aggregate shall be specified in the tender schedule. These particulars will be only for the guidance of the contractor for quoting rates.

Immediately upon the receipt of the award of the contract, contractor shall inform the Estate Officer, TANUVAS, the exact location of the source of the materials where he proposed to use and get the materials approved. The mix with the actual approved materials to be used shall be got designed in an approved laboratory by the contractor with minimum quantity of cement to the specified strength in the preliminary test and the proportions got approved from the Estate Officer, TANUVAS in writing. These proportions shall be used. So long as the materials continue to be of the same quality and the same sources subject only to slight changes in the relative qualities of fine and coarse aggregate for the purpose of promoting workability provided the work tests also show the required strength.

If during the progress of work the contractor wishes to change the materials the proportions shall be mixed on the basis of fresh preliminary tests to give the required strength after the Executive Engineer is satisfied that the materials satisfy the specification. No adjustment of cost shall be made for change of proportions of cement fixed in the original preliminary tests.

PROPORTIONATE OF MIX:

Each batch of mix shall be proportioned to weight of cement fine aggregate and coarse aggregate water for each batch shall be added in quantity measured by volume or by weight, where weight of cement as determined by accepting the maker's weight per bag a reasonable number of bags shall be weighted separately to check net weight, where the cement is weighted on the site and not in bags it shall be weighted separately from the aggregates. All the weighting equipment shall be maintained in a clean and serviceable condition and their accuracy checked periodically.

Mixing:

Mixing shall be done only by mechanical mixers. The quantities of the aggregate and water shall be adjusted duly in the field to compensate for bulkage due to the quantity of moisture present in the fine aggregate and free water in the coarse aggregate at the time of use.

TESTS:

Tests shall be got done in an approved laboratory at the cost of the contractor.

A. Preliminary tests

If concrete mixers are specified by its strength than the mix shall be designed and preliminary tests should be carried.

A preliminary test is conducted in a laboratory of the trial mix of concrete produced in the laboratory with the object of:-

- a. Designing of concrete mix before the actual concrete operation starts.
- b. Determining the adjustments required in the designed mix or when there is change in the materials used during the execution of work.
- c. Verifying the strength of concrete mix

B. Work tests:

The test conducted either in the field or in a laboratory on the specimen made on the works out of concrete being used on the works.

The samplings shall be spread as evenly as possible throughout the day, when wide changes in whether conditions occur during concreting additional samples may be taken as desired by the Assistant Executive engineer and Estate Officer, TANUVAS.

All expenses on the tests shall be borne by the contractor nothing extra shall be paid to the contractor for carrying out the tests.

All samples for tests shall be taken in the presence of Assistant Estate Officer concerned and the contractor or his authorized agent.

All mix design and test data and results shall be maintained as part of the record for the contract and shall be signed by the Assistant Executive Engineer and the contractor.

A register of cement concrete cubes cost and tested giving the following particulars shall be maintained at the site.

1. Name of the work and reference to agreement
2. Sl.No.
3. Date and time of sample taken
4. Sample No.
5. No. of cube
6. Identification works
7. Proportion of mix
8. Description of the portion of work represented by the sample and quantity of concrete represented by the sample.

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9. InitialsofAssistantExecutiveEngineerandcontractorsauthorizedagentin whosepresence sample is taken.
10. Resultof7daystest.
11. Resultof28daystest
12. ReviewremarksbyAsst ExecutiveEngineer/ExecutiveEngineer/Estate Officer, TANUVAS.

Extract of: IS456– 2000

4.2.2.1:PlainandreinforcedconcreteshallbeinsevendegradeddesignedM10,M15,M20, M25, M30, M35 and M40.

Note: in the designation of the concrete mix, letter M. refereed the mix., and the number to the specified 28 days works cube compressive strength of that mix expressed in kg/cm².

Strengthrequirements of concrete

when a ordinary Portland cement or Portland blast furnace slag cement conforming to accepted standards (vl.5) (21/2 is used the compressive strength requirements for various grades of concrete shall be as given in Table I. Where rapid hardening Portland cement is used the 20 days compressive, strength requirement specified in Table 1. Shall be met at 7days, where other cements are used the Engineer incharge shall specify the corresponding requirements preferably on the basis of preliminary tests.

*IS 269/1458 specification for ordinary rapid hardening and low heat Portland cement is 455/1962 specification for Portland blast slab cement.

.3 strength requirements specified in Table 1 shall apply to both controlled concrete and ordinary concrete (Sec. 4.3.1) preliminary tests need not however be made in theCase of ordinary concrete.

1. In order to get a relatively quicker idea of the quality of concrete, optional works tests on beam for module or rupture at 72-2 hours of at 7days, or compressive strength tests at days may be carried outin additional to 28days compressive strength tests.In all cases, the 28days compressive strength specified in Table 1 shall alone in the criteria for acceptance or rejection of the concrete.If however, from testscarriedout in a particularjob overareasonably long period ithasbeenestablished tothesatisfaction of the Engineer–in-charge that suitable ratio between the 28days compressive strength and the modulus of rupture at 72+2 hours or at 7 days or compressive strength at 8 days may be accepted the Engineer-in-charge may be suitably relax the frequency of 28 days compressive strength test specified in the table 5 providedtheexpectedstrengthvaluesatthespecifiedearly ageareconsistentlymet.Forthis purposethe values given in Table 2 may be taken for general guidance in the case of concrete made with ordinary cement.

b. where the strength of concrete mix, as indicated by tests, lies between strength for any two gradesspecified inTable1. Suchconcreteshallbeclassifiedforallpurposeasaconcretebelongingtothe lower of the two grades between which its strength lies.

PROPORTIONINGANDWORKS CONTROL

Methods of proportioning the determination of preparations of cement aggregate and waterto

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attain the required strength shall be made by one of the following.

- a. With preliminary tests by designing the concrete mix such concrete shall be called controlled – concrete.
- b. Without preliminary tests by accepting nominal concrete mixes such concrete shall be called “Ordinary Concrete”.

1. Controlled concrete:

As far as practicable, controlled concrete should be used on all concrete works, controlled concrete for use in plain and reinforced concrete structure shall be in grades M10, M15, M20, M25, M30, M35 and M40.

The concrete mix shall be designed to have an average strength corresponding to the values specified for preliminary tests in Table.1. The proportions chosen should be such that the concrete has adequate workability for the conditions prevailing on the work in question and may be properly compacted with the means available.

The maximum, total quantity of aggregate by weight per 50kg of cement shall not exceed 450 kg except where otherwise specifically permitted by the Engineer in charge.

Except where it can be shown to the satisfaction of the Engineer in charge that supply of properly grade aggregate of uniform quality can be maintained over the period of works the grading of aggregate should be controlled by obtaining, the coarse aggregate in different sizes and blending them in the right proportions when required, the different sizes being stocked in separate stock piles the materials should be stocked in several hours preferably a day before use. The grading of coarse and fine aggregate should be checked as frequently as possible the frequency for a given job being determined by the Engineer, in charge to ensure that the suppliers are maintaining the grading uniform with samples that of the samples used in the preliminary tests.

4.2.3.4 In proportioning concrete the quantity of both cement and aggregate should be determined by weight. Where the weight of cement is determined by accepting the manufacturer's weight per bag a reasonable number of bags, should be weighted separately to check the net weight. Where the cement is weighted on the site and not in bags, it should be weighted separately from the aggregates. Water should be either measured by volume in calibrated tanks (or) weighted all measuring equipment's should be maintained in a clean serviceable condition and their accuracy periodically checked.

4.2.3.5 It is most important to maintain the water cement ratio constant at its correct value. To this end determination of moisture contents in both fine and coarse aggregates should be made as frequently as possible the frequency for given job being determined by the Engineer in charge according to weather conditions the amount or the added water should be adjusted to compensate for any observed variations in the moisture contents. For the determination of moisture content in the aggregate IS 2386 part III 1963.

Methods of test for aggregate for concrete part III specific gravity, density, voids, absorption, etc., may be referred to allow for the variation in weight of aggregate due to variation in their moisture content suitable

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adjustments in the weights of aggregates should also be made.

No substitution in materials used on the work for alterations in the established proportions except as permitted in 4.3.2.5 shall be made without additional tests to show that the quality and strength of concrete are satisfactory.

Workability of the concrete should be checked at frequent intervals, the slump test or where facilities exist, the compacting factor test—in accordance with IS-1199 Part II 2018 may be adopted for this propose.

A competent person should be employed whose first duty will be to supervise all stage in the preparation and placing of the concrete. All works test specimen should be made and site tests carried out under his direct supervision.

Ordinary concrete:

Where it is considered not practicable to use controlled concrete ordinary concrete may be used for concrete of grades M10, M15, M20 and M25. The proportions of materials for nominal concrete mixes for ordinary concrete shall be in accordance with table III.

In proportioning concrete, the quantity of cement should be determined by weight. The quantities of fine & coarse aggregate may be determined by volume, but these should also preferably be determined by weight. In the latter case the weight should be determined from the volume specified in table III and the weight per liters of dry aggregate. If fine, aggregate is moist and volume batching is adopted. Allowances shall be made for bulking in accordance with IS.2386/ Part III -1963.

4.3.3.3. The water cement ratio shall not be more than that specified in Table III.

The cement concrete of the mix specified in Table III for any nominal mix may be increased if the quantity of water in a mix was to be increased to overcome the difficulties of placement and compaction so that the water cement ratio specified in Table III is not exceeded.

Note 1: In the case of vibrated concrete, the limits specified may be suitably reduced to avoid segregation.

Note 2: The quantity of water used in the concrete mix for reinforced concrete work should be sufficient but should not be more than sufficient to produce a dense concrete of adequate workability for its purpose which will surround and properly grip, all the reinforcement workability of the concrete should be controlled by maintaining a water cement ratio that is found to give a concrete which is just sufficiently wet to be placed and compacted without difficulty with the means available.

Workability of the concrete should be controlled by direct measurement of water content, making allowance for any surface water in the fine and coarse aggregates. The slump test in accordance with IS 1199 Part II 2018 may be used as guide.

Allowance should be made for surface water present in the aggregate when computing the water content, surface, water shall be determined by one of the field methods described in IS 2386/Part III 1963. In the absence of exact data the amount of surface water may be estimated from the values given in Table 4.

If ordinary concrete made in accordance with the proportions given for a particular grade does not yield the specified strength due to proper qualities of materials not being available such concrete shall be classified as belonging to the appropriate lower grade. Ordinary concrete proportioned for a given grade.

In accordance with Table III shall not, however be placed in a higher grade on the ground that the test strength and are higher than the minimum specified no interpolation shall be permissible. Sample size and acceptance criteria.

All tests shall be carried out in accordance with IS 516-2021.

The number of test specimen required the frequency of sampling and the criteria for acceptance of a concrete as conforming to the specified grade shall be in accordance with Table V for both ordinary concrete and controlled concrete. No preliminary tests are however necessary in the case of ordinary concrete.

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TABLE-1 STRENGTH REQUIREMENT OF CONCRETE

CLAUSE 4.2.2.1 AND 4.2.2.2

All values in Kg/Cm².

Grade of concrete	Compressive strength of 15cm., cubes at 28 days after mixing conducted in accordance with IS 516-2021	
	Preliminary test Min	Work test min
M.10	135	100
M.15	200	150
M.20	260	200
M.25	320	250
M.30	380	300
M.35	440	350
M.40	500	400

Note 1: Preliminary Test: A test conducted in a laboratory on the trial mix of concrete produced in the laboratory with the object of

- a. Designing a concrete mix before the actual concreting operations start.
- b. Determining the adjustments required in the designed mix when there is a change in the materials used during the execution (or)
- c. Verifying the strength of concrete mix

Note 2: Works Table – All test conducted either in the field or in a laboratory in the specimens made on the works out of the concrete being used on the works.

Note 3: Sizes of Cubes –

In the work test with the approval of the Engineer in charge 10cm cubes may be used in place of 15cm provide that the maximum nominal size of aggregate does not exceed 20mm even the use of 15cm cubes should normally be restricted to concrete having a maximum nominal size of aggregate not exceeding 40mm size is required to be tested the size of cubes should be specified by the Engineer in charge keeping in view that generally the length of size of the cube should be about four times the maximum nominal size of aggregate in the concrete constituting the cube specimen.

Note 4: Strengthening Rotation to size of cube

Where 10cm cubes are used the values obtained from tests, of 10cm cubes shall be reduced to the extent established by comparative preliminary tests with 10 & 15cm. cubes or in the absence of such compressive test, by 10 percent of the value of determined from the tests in order to give the equivalent

Strength for 15cm., where cubes larger than 15cm are adopted generally modification is necessary unless otherwise specified by the engineer in charge.

Note 5: Cylinder strength:

Compressive strength tests may with approval of the Engineer in charge be conducted on 15cm diameter and 30cm, high cylinders in accordance with IS-516-1959 instead of a cube, where cylinder strength figures are adopted the compressive strength figures given above shall be modified according to the formula, minimum cylinder compressive strength required 0.8 compressive strength specified 15cm cubes.

The Central Road Research institute, New Delhi has carried out tests with a view to establishing a relation between water cement ratio and the compressive strength concrete using ordinary Portland cements manufactured in the country in accordance with IS 269-1959.

As a result of these, it has been considered advisable to give graphs showing the relationship between the compressive strength of concrete mixes with different water cement ratios and the 7 days compressive strength of cement tested in accordance with IS-269-1959. These graphs have been given in appendix as they would be of some assistance in obtaining the water cement ratio for trial mixes of concrete.

Table II: Optional work Test Requirement of Concrete:

(Clause 4.2.2.2(a): All values in kg/cm²)

All tests shall be conducted in accordance with IS: 516-2021

Grade of concrete	Compressive strength on 15cm cube min. at 7day	Modulus of rupture by beam test	
		At 72+2 Hours	At 7 Days
M.10	70	12	17
M.15	100	15	21
M.20	135	17	24
M.25	170	19	27
M.30	200	21	30
M.35	235	23	32
M.40	270	25	34

Note: Note 2 and 3 under tables are also applicable to Table II

Table III:

CONCRETE MIX PROPORTIONS

(Clause 4-3-5)

ORDINARY CONCRETE

Grade of concrete	Total quantity of dry aggregate by volume per 50 kg of cement to be taken at the sum of the individual volume of Fine and coarse aggregate mix	Proportion of fine aggregate to coarse aggregate	Quantity of water per 50kg of cement mix
1	2	3	4
M.10	300	Generally 1:2 for fine aggregate to coarse aggregate by volume but subject to upper limit of 1:1½ and lower limit of 1:3	34
M.15	220	-do-	32
M.20	160	-do-	30
M.25	100	-do-	27

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Note 1: The proportion of the aggregate should be adjusted from upper limit of lower limit progressively as the grading of the fine aggregate become fine and the maximum size of course aggregate become larger. Examples: For an average grading of fine aggregate that is zone II I.S. 383/1963 the proportion shall be 1:1½, 1:2 and 1:3 for maximum size of aggregate 10mm, 20mm and 40mm respectively.

Note 2: It may be noted for general guidance that M10, M15, M20 and M25 of ordinary concrete corresponding approximately to 1:3:6, 1:2:4, 1:1½:3 and 1:1:2 nominal mixes of ordinary concrete currently used in the country.

Table IV: Surface water carried by average aggregate:

Aggregate (1)	Approximate quantity of surface water (M ³) (2)
Very wet sand	120
Moderately dry wet sand	60
Moist sand	40
*Moist gravel or crushed rock	20 to 40

*Coarser the aggregate less the water it will carry.

AMENDMENT TO THE TAMIL NADU TRANSPARENCY INTENDERS RULES
[G.O.Ms.No.309, Finance (Salaries), 17th October 2017, Purattasi 31, Hevilambi,
Thiruvalluvar Andu – 2048]

No.SROA-46(d)/2017.

In exercise of the powers conferred by sub-section (1) of Section 22 of the Tamil Nadu Transparency in Tenders Act, 1998 (Tamil Nadu Act 43 of 1998), the Governor of Tamil Nadu hereby makes the following amendment to the Tamil Nadu Transparency in Tenders rules, 2000.

2. The amendment thereby made shall come into force on 17th day of October, 2017.

AMENDMENT

In the said rules, after rule 13, the following rules shall be inserted, namely:-

“13-A. General Condition :- The tender document shall include a condition that all the contractors and sub-contractors hired by main contractors shall engage construction workers registered with the Construction Workers Welfare Board as required under the Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act, 1996 (Central Act 27 of 1996)”.

SpecialConditionsforQualityControlSystem

- 1) The Contractor shall establish Quality Assurance and Quality Control Systems in accordance with Quality Assurance Plan to prove compliance with the requirements of the contract as approved by the Estate Officer, TANUVAS (or) Engineer-in-charge concern.
- 2) The Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel consumables, instruments, labour, materials and suitably qualified and experienced staff as are necessary to carry out the specified test efficiently. The samples shall be collected and the tests may be conducted in the presence of the Engineer-in-Charge or his authorized representatives.
- 3) Alternatively the contractor may test the materials during execution of works at the reputed laboratories approved by the Estate Officer, TANUVAS at the contractor's own cost, provided that the samples are collected with proper identification marks in the presence of the Engineer-in-Charge or his authorized representative.
- 4) The frequency of testing of materials shall be in accordance with the relevant IS codes.
- 5) Compliance with the Quality Assurance / Quality Control Systems shall not relieve the contractor of any of his duties, obligations or responsibilities covered under the contract.
- 6) The Engineer-in-charge shall check the contractor's work and notify the contractor of any defects that are found. Such checking shall not affect the contractor's responsibilities. The Engineer-in-charge may instruct the contractor to search for a defect and to uncover and test any work that the Engineer-in-charge considers may have a defect.
- 7) If the contractor has not corrected a defect within the time specified in the Engineer-in-charge notice, the Engineer-in-charge will assess the cost of having the defect corrected, and the contractor have to bear the costs.

ADDITIONAL SPECIAL CONDITION

If the bid of the successful tenderer is seriously unbalanced in relation to the departmental value put to tender of the cost of work to be performed under the contract the Estate Officer, TANUVAS may require the tenderer to produce detailed price analysis for any or all items of the bill of quantities to demonstrate the internal consistence of these prices with the construction methods and schedule proposed. After evaluation of the price analysis, the Estate Officer, TANUVAS may require that any amount of the performance of additional security be increased of the expense of the successful tenderer to a level sufficient to protect the Government against financial loss in the event of default of the successful tenderer under the contract.

CONTRACTOR**Tamil Nadu Veterinary and Animal Sciences University,
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G.O.(3D)No.14MunicipalAdministrationandWaterSupply(GL)Dept.dt:01.06.10

General Guidelines regarding the safety measures to be observed for the prevention of children being trapped and falling into bore wells and tube wells or abandoned wells as follows.

- i. "The owner of the land/premises, before taking any steps for constructing bore well/tube well must inform in writing at least 15 days in advance to the concerned authorities in the area, i.e., District Collector / District Magistrate/ Sarpanch of the Gram Panchayat / concerned officers of the Department of Ground Water / Public Health / Municipal Corporation, as the case may be, about the construction of bore well / tube well.
- ii. Registration of all the drilling agencies, viz., Government / Semi Government / Private etc., should be mandatory with the district administration.
- iii. Erection of sign board at the time of construction earth well with the following details:
 - (a) Complete address of the drilling agency at the time of construction/rehabilitation of well.
 - (b) Complete address of the user agency/owner of the well.
- iv. Erection of barbed wire fencing or any other suitable barrier around the well during construction.
- v. Construction of cement /concrete platform measuring 0.50 x0.50 x0.60 meter (0.30 meter below ground level) around the well casing.
- vi. Capping of well as assembly by welding steel plate or by providing a strong cap to be fixed to the casing pipe with bolts & nuts.
- vii. In case of pump repair, the tube well should not be left uncovered.
- viii. Filling of mud pits and channels after completion of works.
- ix. Filling up abandoned bore wells by clay / sand / boulders / pebbles / drill cuttings etc., from bottom to ground level.
- x. On completion of the drilling operations at a particular location, the ground conditions are to be restored as before the start of drilling.
- xi. District Collector should be empowered to verify that the above guidelines are being following and proper monitoring check about the status of boreholes / tube wells are being taken care through the concerned State / central Government agencies.
- xii. District / Block / Village wise status of bore wells / tube wells drilled viz., No. of wells in use No. of abandoned bore wells / tube wells properly filled up to ground level to be maintained at District Level. In rural areas, the monitoring of the above is to be done through Village Sarpanch and the Executive from the Agriculture Department.
- xiii. In case of urban areas. The monitoring of the above is to be done through Junior Engineer and the concerned Department of Ground Water/ Public Health /Municipal Corporation etc.,
- xiv. If a bore well / tube well is 'Abandoned' at any stage, a certificate from the concerned department of Ground Water / Public health / Municipal Corporation / Private Contractor etc., must be obtained by the aforesaid agencies that the 'Abandoned' bore wells / tube well is properly filled up to the ground level. Random section of the abandoned wells is also to be done by the Executive of the concerned agency/ department. Information on all such data on the above are to be maintained in the District Collector /Block Development office of the State.

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Table IV: Preliminary Test:

WORK TEST**ACCEPTANCE CRITERIA FOR CONCRETE (ALL GRADE)**

Minimum No. of specimens from each batch (cubes)		Minimum Frequency	Criteria for acceptance	Minimum No. of specimen taken from the same day's work				Minimum Frequency		Criteria for acceptance
				Cubes		Beams		Interms of the quality of concrete	Interms of period	
7 days compressive strength test as optional test if desired	28 days compressive strength test			7 days compressive strength test as an Optional test if desired	25 days compressive strength test	72+2 Hours test as an optional test if desired	7 days test as an optional test if desired			
1	2	3	4	5	6	7	8	9	10	11
5	5	For each batch with a minimum of three batches	Accept for if average compressive strength of the specimen tested is not less than the compressive strength specified in Table-1 (For Optional tests See Table-2) subject to the condition that only one out of five consecutive test may give a value less than specified strength	3	3	3	3	For every 150 cubic metre of concrete or part thereof	At such intervals as the Engineer in charge, may decide. However in the case of concrete samples shall be drawn on each day for the first four day of concreting and thereafter at least.	Accepted to average strength of the specimen test is not less than the strength specified in Table-1 (For optional test see Table-1) Subject to the condition that only one out of three consecutive test may give a value less than the specified.

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1	2	3	4	5	6	7	8	9	10	11
---	10	For each batch with a minimum of three batches	Accept if average compressive strength of the specimens tested is not less than the compressive strength specified in Table-I subject to the condition that the average compressive strength shall be more than the specified compressive strength in Table-I, by at least the value of standard deviation* of the series of the test *Standard deviation	5	5	5	5	For every 150 cubic metre of concrete or part thereof	Once in 7 days of concreting At such intervals as the Engineer in charge may decide. However in the case of controlled concrete samples shall be drawn on each day for the first four days of the concreting and thereafter at least one seven days concreting	Strength but it shall not be less than 90% for the specified strength. Accept if average strength of the specimen tested is not less than strength specified in Table-I (For optional tests see Table-32) subject to the condition that one out of five consecutive tests may give a value less than the specified strength.
*standard deviation = $d/\sqrt{n-1}$ Where 'd' individual deviation from the average and 'n' number of specimen tested										

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GENERAL CONDITIONS OF CONTRACT

APREFACE

1. Intent and reference to Tamil Nadu Building Practice

1. It is intended by these Tamil Nadu Practice to describe.

- (a) The character of the material to be used;
- (b) The method of execution of work and
- (c) The contractor's responsibilities to the Public, Government and its workmen and general contract conditions which are to be accepted by every contractor who executes work entrusted to him by the Department.

1.2. Wherever the term "Standard Specifications" or "Specifications" or to 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 Tamil Nadu Building Practice.

3. The Abbreviation "IS." shall mean "Indian Standard-".

2. Applicability of the Tamil Nadu Building Practice.

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 Tamil Nadu 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 at 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 Estate Officer, TANUVAS. THESE GENERAL CONDITIONS OF CONTRACT SHALL APPLY TO ALL AGREEMENTS ENTERED INTO BY CONTRACTORS WITH THE PUBLIC WORKS DEPARTMENT OR TANUVAS, Chennai-51 AND shall form

An inseparable condition of contract and it shall not be

necessary to append a copy of the same to the agreement.

3. Contractor to sign in the Division (or the sub Divisional) copy of the T.N.B.P.

Every contractor who executes work for the Public Works Department or the Highways Board and Rural Works Department shall carefully study 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 copy if so arranged by the Estate Officer, TANUVAS) as evidence that he understands clearly the conditions of contract governing his agreement and accepts the same.

It shall not be necessary for the contractor 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 standard 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 additions 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 his 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 specification are grouped under one specification number with a "General" preface thereto, and the sub-specification are therefore given an

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Alphabeticalaffix.

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

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

6. Powers of Estate Officer, TANUVAS to supplement or alter the T.N.B.P

6.1 Estate Officer, TANUVAS may alter the specification for any particular which is within their respective powers of sanction, when such alteration is found necessary by attachment of a correctionsheettothecontractform,bearingthe T.N.B.P.number, the corrections and the signature of theEstate Officer, TANUVAS 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 sheet bearing the signatureoftheEstate Officer, TANUVASas the case may be and the signature of the contractor.

A.I. DEFINITIONS AND INTERPRETATIONS.

7. Definition of terms:

Wherever the words and expression defined in this clause or pronouns used in their status 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) "Estate Officer, TANUVAS" means the Estate Officer (or) Estate Officer, TANUVAS for the time being in charge of the concerned work under execution or such other departmental assistants or subordinates to whom the Estate Officer may have delegated certain duties, acting severally within the scope of the particular duty entrusted to them.

(b) No delegation by Estate Officer, TANUVAS which affects agreements. It is however, to be distinctly understood that the Estate Officer, TANUVAS / Estate Officer or the higher authority who is vested with the powers of acceptance of the particular

agreement under reference will make no delegation of

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powers to such assistants or subordinates which in any affects the agreement and its contract condition when such agreement is to be or has been accepted by the "Estate Officer, TANUVAS" or by the other higher authority respectively. The duties of such assistants 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 Estate Officer, TANUVAS or higher authority as the case be, for executing work defined in the concerned agreement, and for purposes of instructions regarding compliance with contract conditions, it shall include the contractor's authorized agent, who is maintained on the work by the 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 carriage or additional or connected, with the supply repairs or carriage of tools and plant and supply or manufacture of other stores.

Words importing the singular only also include the plural and vice-versa where the context requires.

NOTE:- The farm sub-

divisional officer, Assistant Executive Engineer, Executive Engineer, Estate Officer, TANUVAS and Registrar,

TANUVAS, used in the following clauses shall, where the context so requires, be construed as also including officers of the corresponding grade in the PWD / Highways and Rural Works Department etc.,

8. Evidence of experience- Tenderers shall, if required, present satisfactory evidence to the Estate Officer, TANUVAS that they have been regularly engaged in constructing such works, as the proposed 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 give in their tender their

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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 acknowledgement 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 Estate Officer, TANUVAS

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

10.1 The quantities mentioned in tender notices and in agreement schedule A are worked out from the relevant drawings in office and may or may not be the actual required for execution. The Estate Officer, TANUVAS 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.

10.2. 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 sufficiency of the statement of quantities and all conditions affecting the work and shall not 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 or extension of time for completion beyond the agreement date.

11. Approximate not to mean deviation from drawings and specifications:

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

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increased for departure by the contractor from strict

Compliance with sanctioned drawings and specifications to suit his own convenience or reduce his costs.

12. To compare tenders:-

The quantities in Schedule A are given for a uniform comparison of lump-sum tenders

C. DRAWINGS AND SPECIFICATIONS

13. Purpose:

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

14. Conformance:

The works shall be carried out in accordance with the drawings and specifications which form part of the contract and in accordance with the details and instructions, supplementing or explaining the same as may from time to time be given by the Estate Officer, TANUVAS

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 Estate Officer, TANUVAS. In the event of the Estate Officer, TANUVAS and contractor failing to agree as to whether or not there is any excess rate to be fixed and the Estate Officer, TANUVAS 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 thereof, shall

failing agreement, be settled by an arbitrator as provided in the arbitration clause, unless the subject is one which is left to the sole discretion of the Estate Officer under the clauses of these conditions of contract and the contractor shall be

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paid accordingly.

It shall be the responsibility of the contractor to give timely notice to the Estate Officer, TANUVAS regarding 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 sealing 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 with the drawings and specifications the contractor shall forthwith apply to the Estate Officer, TANUVAS 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 Estate Officer, TANUVAS (or) Engineer-in-charge 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 omission or additions.

For all modifications, omissions from or additions to the drawings and specifications, the Estate Officer, TANUVAS will issue revised plans, or written instructions or both, and no modifications, omissions or additions shall be made unless so authorized and directed by the Estate Officer, TANUVAS in writing.

The Estate Officer, TANUVAS 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 annul these portions of the specifications with which said changes do not conflict.

The contractor shall submit to the Estate Officer, TANUVAS a statement giving details of the claims for any additional work with 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 drawings and specifications:

One copy of the available drawings and specifications (apart from the T.N.B.P. a copy of reference) shall be furnished free of cost to the contractor for his own use. Such copies and copies of supplementary details furnished by the Estate Officer, TANUVAS shall be kept by the contractor on the work until the completion thereof, and the Estate Officer, TANUVAS shall at all times have access to them.

17. Signed drawings - No authority to the contractor.

No signed drawing shall be taken as in itself and order for variation, unless either is it entered in the agreement schedule of drawings under proper attestation of the contractor and the Estate Officer, TANUVAS, or unless it has been sent to the contractor by the Estate Officer, TANUVAS, 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:

All materials, articles and workmanship shall be the best of their respective kind for the class of work described in the contract specification and schedule, materials being obtained from sources approved by the Estate Officer, TANUVAS. The word "best" as used in these specifications shall mean, that in the opinion of the Estate Officer, TANUVAS there is no other superior quality of materials or finish of articles on the market and that there 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 Estate Officer, TANUVAS, furnish him with the vouchers to prove that the materials are such as are specified.

Samples of materials shall be furnished at the contractor's expenses to the Estate Officer, TANUVAS when called for in the tender notice or ordered to be furnished by the Estate Officer, TANUVAS prior to execution of any work.

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variations from P.W.D. Standard Data.

19. Conventionsforproportions:

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:

1:2Means1lime(orcementinaccordancewith
Thecontext)and2sand;

1:2:4 Means 1 lime (or cement in accordance with the context) 2 sand and 4 broken stone (or other aggregate in accordance with the context).

20. Measurementandmixing:

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 Estate Officer, TANUVAS (or) Engineer-in-charge. Measurement is not to be done in loose heaps when intimate mixtures such as mortar, 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 (or) Engineer-in-charge. The cost of such measuring boxes and platforms and all the work referred to herein shall be borne by the contractor.

21. Data:

The materials and labour utilized in the execution of work by the contractor shall not be less than that given in the Tamil Nadu P.W.D. 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 reason for

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22. Layoutofmaterialsstocks:

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

23. Sourceofpurchaseofmaterialsandstores

The Estate Officer, TANUVAS 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 purposes therein specified.

24. Contractor liable for materials supplied by Government.

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 from whatever cause and pay to Government for such loss, damage, wastage or undue wear and tear such sum as the Estate Officer, TANUVAS may determine.

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 the rate which he demands for finished work in view of the fact that he is to use Government materials.

24.4.Storagecharges:

24.4. Govt. do not undertake to take over from contractors whether before or after the completion or determination of contract surplus materials which were originally procured by the contractors themselves or were issued to them and charged to their accounts. Such materials are the property of the contractor and

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can be taken over by Govt. if required for use on the works in progress only by special arrangement at the prevailing market rates viz., the rate at which the article or articles of a similar description can be procured at a given time at the stores Godown J from public market suitable to the division for obtaining a supply therefore of the materials were originally supplied by the Govt. Price allowed to the contractors on requisition should not exceed the amount charged to the contractors excluding the element of storage charges if any.

Contractors are however not at liberty to remove from the site of work, without the written permission of the engineer in charge, materials, which have been issued to them for use on works.

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

The contractor shall provide proper facilities at all for the testing of materials and inspection of the work by the Estate Officer, TANUVAS, and the Estate Officer, TANUVAS shall according by also have access at all times to the palaces 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.

The contractor shall, upon demand, also forward for the Estate Officer, TANUVAS inspection, test certificate supplied by the vendors, when he is Purchasing consignments of cement, steel and other materials in respect of which such certificates are usually available.

The Estate Officer, and Engineer in charge TANUVAS 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 rough 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 drawings 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 Estate Officer, TANUVAS. Replacement shall at once be made in accordance with the specifications and drawings at the contractor's expense.

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

In lieu of rejecting work not done in accordance With the contract, the Estate Officer, TANUVAS 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.

Works opened for inspection The Contractor shall at the request of the Estate Officer, TANUVAS within such time as the Estate Officer, TANUVAS shall name open for inspection any work covered up; and should the contractor refuse or neglect to comply with such a request, the Estate Officer, TANUVAS may employ other workmen to open up the same. If the said work has been covered up in contravention of the Estate Officer, TANUVAS instructions or if on being opened up, it be found not in accordance with drawing and specifications of the written instructions of the Estate Officer, TANUVAS the expenses of opening it and covering it up again, whether done by the contract or such other workmen, shall be borne by. or recovered from the contractors. If the work has not been covered up in contravention of such instructions or if on being opened up it be found i.e. he in accordance with the drawings and specifications or the written instructions of the Estate Officer, TANUVAS, 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 works so opened up and requiring immediate attention the Estate Officer, TANUVAS shall, within reasonable time after the receipt of a notice from the contractor that the

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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 inspection except at the expense of Government.

26. Defects, shrinkages, etc., after completion.

Any defects, shrinkage or other faults which may appear within 6 months from the completion of works arising in the opinion of the Estate Officer, TANUVAS from faulty materials or workmanship not in accordance with the drawings and specification instructions of the Estate Officer, TANUVAS shall open the directions in writing of the Estate Officer, TANUVAS and within such reasonable time as shall be specified therein, be amended and made good by the contractor at his own cost unless the Estate Officer, TANUVAS shall decide that the contractor ought to be paid for the same at the rates agreed on such reduced or other rates as the Estate Officer, TANUVAS may fix and in case of default, the Estate Officer, TANUVAS 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 incidental thereto shall be borne by the contractor.

(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.181PWU28.1.86)

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 years from the date of final taking over of the work irrespective of the actual dates on which portions the works were taken over,

27. Estate Officer decision:

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 drawings and contract specifications, mode of procedure and the carrying out of the work, the decision of the Estate Officer, TANUVAS shall be final and binding on the contractor

and in any technical question which they arise touching the contract the Estate Officer, TANUVAS and University administrative authority decision shall be final and conclusive.

28. Dismissal of Workmen:

The contractor shall employ in and about execution of the works only such persons as are careful, skilled and experience in their several trades and callings and the Estate Officer, TANUVAS 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 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 Estate Officer, TANUVAS

GENERAL OBLIGATIONS

29. Contractor's maistri or agent and contractor's staff:

The contractor shall in his own absence keep constantly on the works a competent maistry or agent and any directions or explanations given by the Estate Officer, TANUVAS or his representatives to such. Maistry or agents shall be held to have been given to the contractor.

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

30. Government masteries or agents:

The Government may be represented on the work by an agent clerk of the works, or maistry who is not borne on the Official or officers and subordinates of the P.W.D, or Highways and Rural Works Department. He (if appointed) shall, in the absence of the Estate

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Officer, TANUVAS furnish the contractor with the Estate Officer, TANUVAS or his representative's instructions of the works and the contractor shall duly comply with such instructions and directions and shall on the written requisition of the maistry 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 masonry or workmanship, until the opinion and determination of the Estate Officer, TANUVAS shall be obtained thereon, but such maistry, clerk of works or agent is to have no power whether to order any extra works or deviation from the specification and drawings.

E. INCLUDED IN CONTRACT RATES

31. Defining contract schedule rates:

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

32. CARRIAGE.

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 necessitate provisions for a separate schedule item, in which class such will be specified in the tender notice or schedule.

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 stocks to the satisfaction of the Estate Officer, TANUVAS 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.

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NOTE- 1. In the case of important leads and lifts 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 originally 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 track.

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 travelled and the number of trips to be made shall, if he considers necessary be fixed by the Estate Officer, TANUVAS.

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.

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

33. Construction plant.

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 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 Estate Officer, TANUVAS will ensure the completion of the work within the time specified. If at any time before the commencement, during the progress of the work or any part of it such methods or appliances appear to the Estate Officer, TANUVAS to be insufficient or inappropriate for securing the quality of the work required or the said rates of progress. he may order the contractors to

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increase their efficiency or to improve their character and the contractor shall comply with such orders, but the failure of the Estate Officer, TANUVAS to demand such increase of efficiency of 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.

It is however open to the Estate Officer, TANUVAS to lend or supply to the contractor any tools, implement materials and machinery that the Estate Officer, TANUVAS 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 may be so lent or hired to the contractor shall be the Estate Officer, TANUVAS before the final bill or work is paid and any shortage or damage shall be such rate as may be determined by the Estate Officer, TANUVAS after making such allowance as he may consider suitable for fair wear and tear.

34. Scaffolding

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 work people and the contractor must comply with such instructions as the Estate Officer, TANUVAS may issue to ensure 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 is also invited to the "safety code".

35. Temporary structure:

The contractor shall erect and maintain at his own cost temporary weather proof sheds at such places and in a manner approved by the Estate Officer, TANUVAS 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 for the execution of his contract work or for safeguarding or accommodating the public if the Estate Officer, TANUVAS shall order any departure he shall comply with such orders as the Estate Officer, TANUVAS may issue to safeguard or accommodate the public, sheds for housing workmen shall be provided at the contractor's expenses if, in the opinion of the Estate Officer, TANUVAS, such are necessary or desirable.

36. Water and lighting

37. 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, meters, etc.) for the use of the work and workmen unless otherwise arranged and decided on, in writing with the Estate Officer. 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 mortar otherwise prove harmful to the work

38. Sun protection keeping dry and pumping

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 portion of the work free from water to the satisfaction of the Estate Officer, TANUVAS and shall use his own plant for the purpose unless otherwise specifically provided in the contract specification.

39. 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, tools octroi duties, seigniorages, quarry fees, etc., on all materials and articles that they may use.

The contractor shall be solely responsible for the payment of sales tax under the provision of the payment of sales tax under provision of the payment 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 such tax is

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payable.(Goods and Service Tax)

No withstanding 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 Customs duties

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

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 Estate Officer, TANUVAS. No plot rent shall be charged for materials stacked on the Government land during the course of construction provided all such materials are removed within one month after the work is completed.

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

The contractor shall from 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 throughout the period of the contract.

40. Setting out works:

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

41. Cleaning up during progress and delivery:

All rubbish shall be burnt or removed from 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

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workman like state to the satisfaction of the Estate Officer, TANUVAS having first been removed by the contractor. The contractor shall give notice in writing to the Estate Officer, TANUVAS before the work is finally handed over. All rubbish and surplus materials not required by the Estate Officer, TANUVAS having first been removed by the contractor. The contractor shall give notice in writing to the Estate Officer, TANUVAS when the work is so ready to be handed over and shall be responsible for its maintenance until it is taken over by the Estate Officer, TANUVAS / University.

F. RESPONSIBILITIES AND LIABILITIES OF THE CONTRACTORS.

42. Observance of laws, focal regulations and notices. Attachments:

The contractors shall conform to the regulations and by-laws of any local authority and 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 Estate Officer, TANUVAS 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-law in question and any variations in the drawings or specification so necessitated shall be dealt with under clause 59

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 Estate Officer, TANUVAS. 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 indemnify Government against any claim or liability arising from or based on the violation, of

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any such law or ordinance, regulations or orders, degree, or attachment whether by himself or by his employees.

43. Accidents - Hoarding - Lighting observation - Watchmen:

When excavations have been made or obstacles have been put in public thoroughfare 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 and watchmen as necessary.

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 all claims for damages for injury to person or property, resulting from any such claim and shall where the provisions of the Workmen's Compensation Act apply, take steps to properly insure against any claims thereunder.

On the occurrence of an 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 or 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.

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 Estate Officer, TANUVAS to retain out of money due and payable to the Contractor such sum or sums of money as may, in the opinion of The Estate

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Officer, TANUVAS shall be final in regard to all matters arising under, this clause.

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 of other protected rights in respect of any constructional plant, machine work or material used for or in connection with the works or temporary works, or any of them and from and against all claims, demands, proceedings, damages, cost, charges and expenses whatsoever in respect thereof in relation thereto.

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 Estate Officer, TANUVAS shall be at liberty to make arrangements and provide facilities as aforesaid and recover the costs incurred in that behalf from the contractor. 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 and recover the costs included that behalf from the contractor.

In respect of all labour directly or indirectly employed in the work for the performance of the contractor's part of this agreement the contractor shall arrange to furnish in triplicate particulars to each working the proforma Vide Appendix XXXVIII by the end of every month to the Estate Officer, TANUVAS of the work.

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44. Blasting:

Blasting executed by contractors in connection with Government works shall be carried out in the manner described under Blasting operations Instructions to Contractor of the TNBP.

44. Protection of Existing and adjoining premises

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

45. Permit other Workmen Co-operation Afford facilities:

The Estate Officer, TANUVAS 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 damage which may happen to or be occasioned by any such fittings or other works, provided he complies with the Estate Officer, TANUVAS instructions in connection there with, and provided that the damage is not caused by himself or his workmen.

The contractor shall, at all times, cooperate, assist, attention, and afford facilities for such special lists as may be employed by the Estate Officer, TANUVAS on other works in connection with the building, allowing them free of charge the use of all plant, light and water installed in the works. The contractor shall 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.

When two or more contractors are engaged on installation or construction work in these me vicinity, the Estate Officer, TANUVAS 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:

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 workmen like manner at the contractor's cost, as soon as the fittings have been installed in cases, where the installations as made during the construction of the buildings and where in the opinion of the Estate Officer, TANUVAS, delays in settlement of accounts will not thereby occur.

47. Contractor's risk and insurance:

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 Estate Officer, TANUVAS / University. The Govt. should not be liable to pay for any. loss or damages occasioned by (or) arising out of fire, flood, volcanic eruptions, earth quake or other convulsion of nature and all other natural calamities, risks arising out of acts of God during such period and that the option whether to take Insurance coverage or not to cover risks, is left to the contractor. 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 invasions hostilities or war like 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 of the Estate Officer, TANUVAS or

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of the officer in charge of the work: save when the work is un avoidable or absolutely necessary for the save of life or property or for the safety of the works in which case the contractor shall immediately advise the Estate Officer, TANUVAS.

G. MISCELLANEOUS

49. Sand and gravel:

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

50. Old curiosities:

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

51. Assignment or sub-lettings:

The contractor shall not without the written consent of the Estate Officer, TANUVAS, 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 Estate Officer, TANUVAS, it shall in no way free the contractor from any of his responsibilities under any clause of these "Conditions of Contract" or of the "Articles of agreement"

52. Specialties:

The Estate Officer, TANUVAS, 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 Estate Officer

Should the acceptance of the tenders be beyond the authorized powers of the Estate Officer, TANUVAS as laid down in the P.W.D. code, the orders and decisions of such Estate Officer, TANUVAS with regard to the employment of specialists for certain portion of the work as described in the previous clause will be subject to the ratification of the higher authority who accept the tender.

Powers for sanction of Extension of time:

53.1 .A. Should the acceptance of tender beyond the authorized powers of the Estate Officer, TANUVAS as laid down in TN P.W.D. code, the orders or decisions of such Estate Officer, TANUVAS with regard to the extension of time for completing the contract will be subject to the ratification of Estate Officer, TANUVAS for all works for which tenders were accepted by the Estate Officer, TANUVAS (or) University.

Powers for termination of L S contract.

53.1 .B. Should the acceptance of tender beyond the authorized powers of the Estate Officer, TANUVAS laid down in TN P.W.D. code, the orders and decision of such Estate Officer, TANUVAS with regard to the termination of contract will be subject to ratification of the University authority for all works for which tenders were accepted by University.

54. Order Book.

An order book shall be kept at the P.W.D. 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 Engineer in charge in direct charge of the work and by the contractor or by his representative. In important cases, the Estate Officer, TANUVAS 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 Estate Officer, TANUVAS.

No photographs of the site or of the work of any part thereof shall be taken except with the permission in writing of the Estate Officer, TANUVAS and no such photographs shall be published or otherwise circulated without the permission, of the

University.

**H. DATE OF COMMENCEMENT, COMPLETION,
DELAYS, EXTENSION, SUSPENSION OF
WORK**

AND FORFEITURE.

55. Date of Commencement and completion:

On notification of possession of the site (or premises) being given to the contractor by letter registered for acknowledgement as provided in clause 9.1. supra, he shall forthwith begin the work, shall regularly and continuously proceed with them, and shall complete the same (except for painting or other work which in the opinion of the Estate Officer, TANUVAS, 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 Government 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. Delays and extension of time:

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

Reasonable extension of time will be allowed by the Estate Officer, TANUVAS or by the officer competent to sanction the extension for unavoidable delays, such as may result from causes which in the opinion of the Estate Officer, TANUVAS are undoubtedly beyond the control of the contractor. The Estate Officer, TANUVAS shall assess the period of delay of 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 Estate Officer, TANUVAS is of the opinion that there has been avoidable delays and the contractor fails to

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maintain the "rate" of progress specified in the article of agreement, it shall be lawful for the Estate Officer, TANUVAS to impose penalty or order forfeiture from the Deposit 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.

In the event of the Estate Officer, TANUVAS to failing to issue necessary instructions and thereby causing delay and hindrance) the contractor the latter shall have the right to claim an assessment of such delay by the concern Executive Engineer or Engineer in charge. The contractor shall lodge in writing to the Estate Officer 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.

Whenever, authorized alterations or additions made during the progress of the work are of such nature in the opinion of the Estate Officer, TANUVAS as to justify extension of time in consequence thereof, such extension of time will be granted in writing by the Estate Officer, TANUVAS or other competent authority when ordering such alteration or additions.

57. Delays in commencement or progress or neglect of work or suspension of works by the contractor and forfeiture of Earnest Money, Security Deposit and withheld amount. Time shall be considered as the essence of the contract. If at any time the Estate Officer, TANUVAS, shall be of the opinion that the 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 portion thereof without the sanction of the Estate Officer or violates any of the provisions of the contract the Estate Officer 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 receipts of such notice, it shall then or at any time be lawful for the Executive Engineer/ Asst Executive Engineer/ Estate officer to impose a penalty or

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forfeiture on this contractor from the deposit or to determine the contract.

The penalty for feature referred to in Clause 57.1. shall not exceed 5% of the work executed and is 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 Estate Officer, TANUVAS under this clause is however subject to modification or waiver at the absolute discretion of any authority higher in rank than the Estate Officer.

It shall be a further right of the Estate Officer, TANUVAS 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 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 this account shall be recovered from the original contractor.

Determination of the contract referred to in Clause 47.1 shall carry with it the forfeiture at the Security deposit. After determining the contract, the Estate Officer, TANUVAS 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 Deducted from any money due to him by Government it under this contract or any other account 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.

In the event of anyone of the above clauses being adopted by the Estate Officer, TANUVAS, the contractor shall have no compensation for any loss sustained by him reason of his having purchased or processed any materials or entered into any engagements or made any advances on account or

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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 Estate Officer, TANUVAS 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 so certified.

In the event of the Estate Officer, TANUVAS 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 possession of the works, and site and such plants and materials thereon (or any ground contiguous thereof) 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 notices shall have been given, the contractor shall not be at liberty to remove from the site or 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 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 or any completion of the works, if such plant and or materials are not removed within fourteen days after notice, shall have been so given, Government may remove and sell the same, holding the proceeds less the cost of removal and sale, to the credit of the contractor. The certificate of the Estate Officer, TANUVAS as the expense, of any such removal and the amount of the proceeds and expense of any such sale shall be final and binding on

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the contractor.

I.PARTICULARS OF PAYMENT

58. Payment of lump sum basis or by final measurement lit unit prices:

Final measurements need not be taken unless either the contractor or the Estate Officer, TANUVAS claims extras to or deductions from, the quantities of Schedule A

In case final measurements are claimed, they shall be taken only for those items for which either the contractor or the Estate Officer, TANUVAS 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 therefrom 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 measurements aforesaid.

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.

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

If there is no rate in Schedule 'A' for additional work ordered to be carried out by the Estate Officer, TANUVAS, when prior to execution of 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 Estate Officer and or any other officer

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for the time being authorized 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.

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

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 change 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.

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.

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 Estate Officer within 7 days after such work is completed. If the Estate Officer considers that the vouchers are unduly high, the Estate Officer can evaluate 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. In cases where the Government under the terms of the contract with the contractor are liable to supply and materials, articles or things to the contractor for the performance by him or of his part of the contract, the Estate Officer, may at his absolute discretion extend the time 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 attended without any liability

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on their part to compensate the contractor by reason of the extension of time for the supply of the materials, articles or things.

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 within the time specified in the contract or within the time extended under clause 59.A. the Estate Officer 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 compensations in respect of such determination. The contractor shall, however, be paid the value of the work already done by him and the cost of the materials, articles or things if any collected by him upto the date of such determination and left unused on the work- on shall be taken over by the Estate Officer either at the contract rates or at values deduced from the through rates deduced in the contract. When the contract is determined at the discretion of the Estate Officer, he shall give notice in writing to the contractor and the decision of the Estate Officer to determine the contract shall be final and bind on the contractor.

EXPLANATION:

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.

If, at any time after the acceptance of the tender the Government shall, for any reason whatsoever not required the whole or any part of the work to be carried out, the Estate Officer, TANUVAS shall give notice in writing of the fact to the contractor. Who shall have no claim to any compensation or other payments whatsoever, who shall on account of any profit or advantage he might have derived from the execution of

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the work in full but which he did not 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 in rank to the authority which accepted the tender, for any expense incurred by him on account of labor and materials, articles or things collected, but which could not be utilized on the works as verified by the Estate Officer, TANUVAS. Such decision shall be final and binding on both the parties and shall not be subject to arbitration under clause 73.

60. No payment for UN sanctioned extras:

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 Estate Officer, TANUVAS.

61. Accounts Receipts and Vouchers:

The contractor shall at any time upon the request of the Estate Officer; TANUVAS 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:

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 unauthorized deviations from drawings, specification, instructions and directions for the time being binding upon him.

63. Unfixed materials:

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

64. Payments and certificates:

64.1 Payments will be made to the contractor under the certificates to be issued at reasonably frequent intervals by the concern authorities within 14 days of the date of each certificate an intermediate payment

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will be made by the bill paying authority of a sum equal to 95 percent of the value of work as so certified and the balance of 5% will be withheld and retained as security for the due fulfillment of the contract.

Under the certificate to be issued by the Estate Officer on the completions of the entire works, the contractor will receive the final payment of all the moneys due or payable to him under or by virtue of the contract except security deposit and the withheld amount equal to 2 1/2 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 withheld 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 the expiration of such period of six months as all defects shall have been made good according to the true - intent and meaning thereof whichever shall last happen, in the event the final bill remains unpaid even after the period of six months before said, the Estate Officer shall refund the security deposit which includes the E.M.D. and also the withheld amount on a separate bill if requested or by the contractor in writing. No certificate of Estate Officer shall be considered conclusive evidence as to the sufficiency of any work or materials or correctness of measurements to which is not related nor shall live the contractor from his liability to make good defects as provided by the contract. The contractor when applying for a certificate shall prepare a sufficiently detailed bill based on the original figures of quantities and rates in the contract scheduled to the satisfaction of the Estate Officer, to enable the Estate Officer to check the claims and issue the certificate. The certificate as to such of the claim mentioned in the application as are allowed by the Estate 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.

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64.1.A. Notwithstanding the above clause, the withheld amount of 2 ½ % from the final bill in respect of contract for construction of original building, will be retained by the Government. for a total period of two years in lieu of six months period referred to in **clause of ASRR**

64.1.B. and will be released after the expiry of two years period on execution an indemnity bond by the contractor to the satisfaction of the Estate Officer, TANUVAS for a further period of Three years to ensure structural stability of the building under clause 26.1.A.

64.2. When there are complaint from the Labour Department about non-payment of wages to the Labourers employee by the Contractors for the execution of work under agreement, the Estate Officer, TANUVAS, shall have full powers to withheld 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 and money due to the contractors:

No omission by the Estate Officer, TANUVAS to pay the amount due upon certificate. shall vitiate or make void the contract nor shall the contractor be entitled to interest upon any guarantee fund or payments in arrears, not upon any balance which may, on the final settlement of his accounts, be found to be due to him.

Whenever the withheld amount reaches Rs.1,000 or a multiple thereof, the contractor may at his option, deposit with the Estate Officer, TANUVAS any equal amount in sums of Rs.1,000 or in multiple thereof. in any of the forms of interest bearing securities recognized for the purpose by the T.N. Public Works Account Code and subject to the provisions thereof contained in which case the equivalent withheld amount shall be paid to him forthwith. 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 is properly maintained.

66. Acceptance of final measurements:

The contractor agrees that before payment of the final bill shall be made on the contract, he will sign

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and deliver to the Estate Officer, TANUVAS 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 up to-date has been duly paid provided that nothing in this clause shall discharge or release the contractor from his liabilities under The contract. It is further expressly agreed that Estate Officer, TANUVAS in supplying the final measurement certificate need not be bound by the proceeding measurements and payments. The final measurements, if any of the Estate Officer, TANUVAS shall be final conclusive and binding on the contractor.

67. Recovery of money from contractor in certain case.

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. A. 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 (4) or any amount that may be due or may become due from the contractor under these presents and the contractor not responding to the demands for the payment of the said amount, then the Govt., shall be entitled to recover the said amount under the provisions of the Revenue Recovery Act.

(G.O.Ms.No.3659PWD 23.12.70)

68. Contractor dying becoming insolvent, insane or imprisoned:

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 in to liquidation, voluntary or otherwise, the contract may at the option
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of the Estate Officer, TANUVAS, 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 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. Arbitrations:

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 Estate Officer, TANUVAS / Registrar, TANUVAS under clauses 18, 20.25.3, 27, 34, 35 and 37 of "General conditions of contract" or as to the withholding by the Estate Officer, TANUVAS of payment of any bill to which the contractor may claim to be entitled, the either party shall forthwith give to the other notice of such dispute difference and such dispute or difference. shall or be and is hereby referred to the Estate Officer, TANUVAS of the nominated circle mentioned in "Articles of Agreement" therein after called the "Arbitrator" in cases when the value of claim is less than & upto Rs.50000. In cases when the value of claim is more than Rs.50000 the parties will seek remedies to the competent civil courts. (G.O.Ms.No.253 public works 24.2.81) The Arbitrators shall give detailed reasons in their findings and conclusion (G.O.Ms.No.1844 Public Works off 18.7.86)

Subject as aforesaid to the provisions of the arbitration Act, 1940, or any statutory modification or re-enactment thereof and the rules made there under and for the time being in force shall apply to the Arbitration proceeding under this clause.

Upon every and such reference, the costs of and incidental to the reference and award respectively

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shall be discretion of the arbitrator. Subject to the condition that the amount of such costs to be awarded to either party shall not, in respect of a monetary claim exceed the percentage set out below of any such award irrespective of the actual fees, costs and expense incurred by either party 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 shall direct by whom and to whom and in what manner the same shall be borne and paid.

The fees for arbitrators shall be levied based on the value of claims referred to for arbitrations. The fees shall be calculated at 5 percent of the first Rs.10000/- and 3 percent of the next Rs.40000/-

(G.O.Ms.No.1844PublicWorkdt18.7.86)

Provided that the Government shall not be liable to any claim in respect of any such dispute or differences until the liability and the amount thereof shall have been referred to and decided by the Arbitrator

If at any subsequent to the execution of this agreement, Government materials other than those specified in the agreement are supplied to the contractor for use of the work, they will be charged at the market value prevailing at the time of writing of the charge and they should intimate in writing the rate which he demands for finish the work in view of the fact that he is to use Government materials. No centage of incidental charges will be borne by the Government in connection with the supply of the materials referred to in this paragraph.

APPENDIX-1

PUBLICWORKDEPARTMENTS SAFETY CODE

General Rules as to Scaffolds.

1. Suitable scaffolds shall be provided for workman for all work that cannot be safely done from a ladder or by other means. 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

(0.2 horizontal to 1 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 a competent and responsible person: and (b) as far as possible by competent workers possessing adequate experience in such work.

All scaffolds and appliances connected therewith and all ladders shall

- a) Be of sound materials
- 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 boll-braced and otherwise secured at least 0 meters above the floor or platform of such scaffolding or staging 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. Scaffold shall not be overloaded and so far as practicable the load shall be evenly 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 of the platform or the stairways is more than 3.5 metres above ground level or floor level they should be closely boarded, should have adequate width and should be suitably fenced as

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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 off persons or material.

10. Safe means of access shall be provided to all working platforms and other working places. Every ladder shall be securely fixed. No portable single ladders shall be over 9 metres in length while the width between side rails in rung ladder shall in no case be less than 30cm for ladder up to and including 3 metres in length. For longer ladders this width should be increased at least 20mm for each additional metre of length. Uniform step spacing should not exceed 30cm. 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 be bound to bear the expenses of 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 damage and cost which may be awarded in any such suit, action or proceeding to any cost 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 metres or more in depth shall at all times be supplied with at least one ladder for each 20 metres in length or fraction thereof. Ladder shall be extended from bottom of the trench to at least 0.6 metre above 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.

a) All roads and open areas adjacent to the work site shall either be closed or suitably protected.

b) No electric cable or apparatus used by the operator shall remain electrically charged.

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

13. All necessary personal safety equipment as considered adequate by the Estate Officer, TANUVAS 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) Works employed on mixing asphalted materials cement and lime mortars- shall be provided with protective footwear and protective goggles.

b) Those engaged in wheel-washing and mining or stacking of cement bags or any material which is injurious to the eyes shall be provided with protective goggles.

c) Those engaged in welding works shall have provided with welder's protective goggles and protection clothing and seated at sufficient safe intervals.

d) Those engaged in welding works shall be provided with welder's protective sight ligs.

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 them and holes, and the manholes so opened shall be cordoned off with suitable railing and provided with warning signals or boards to prevent accident to the public.

f) The contractor shall not employ men below the age of 18 years and women on the work of painting,

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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 products shall be used except in the form of paste or ready - made paint,

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

iii) Overalls shall be supplied by the contractors to workmen and adequate facilities shall be provided to 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 casualty, adequate protection of the workers should be provided.

14. When the work is done near any place where there is risk of drawing all necessary equipment's should be provided and kept ready for use and all necessary equipment's step 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

15. a) Hoisting machines and tackle including their attachments 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 any means of suspension shall be of suitable quality and adequate strength and free from patent defect.

a) 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 of the operator,

b) In the case of every hoisting machine and of

every chain ring hook shackle level and pulley block used in hoisting lowering or as a means of suspension, the safe working load shall be ascertained by adequate means. Every hoisting machine and all car referred to above shall be mainly marked with the safe working load, in the case of a hoisting machine Slaving 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.

16. Motors, gearing, transmissions, electricity wiring and other dangerous parts of hoisting appliance shall be provided with efficient safeguards, hoisting appliance shall be provided with such means as will request to a minimum the risk of the accidental descent of the load. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

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

17. 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.

18. To ensure effective enforcement of the rules and regulations relating to safety precautions, the arrangements made by the contractor shall be open to inspection by the Labour Officer, Estate Officer, and TANUVAS of the Department or other representative.

19. Notwithstanding the above clauses (1) to (1 8.) there is nothing in these to exempt the contractor from

20. The operations of any other Act of rules in force in the Republic of India.

Model rules for provision of Health and Sanitary arrangements for workers employed by the P.W.D. and TANU

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VAS and their contractors.

The contractor's special attention is invited to relevant clauses of the "General conditions of control" in the Tamil Nadu Building Practice and he is requested to provide at his own expense the following amenities to the satisfaction of the Estate Officer, TANUVAS.

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

2. Definitions- (i) "Workplace" means a place a which an average fifty or more workers are employed in connection with construction work

(ii) "Large work place" at which, at an averaged 500 or more workers 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 an 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 place is 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 or city or town hospitals, suitable transport shall be provided to facilitate removal of urgent cases to these hospitals. At other work places some conveyance facilities, such as a car shall be kept readily available to take injured persons or persons suddenly taken seriously 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

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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 than 15 metres 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 tightly closed in and be provided with a trap door which shall be dust and water proof.

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

5. Washing and bathing places-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. Latrine 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 Estate Officer, TANUVAS in any particular cases.

i) Where the number of persons employed does not exceed 50.

ii) Where the number of persons employed exceeds 50 - 3 but does not exceed 100.

iii) For every additional 100.....- 3 if women are employed separate latrines and Urinals, screened from those for men 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 system 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

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inside and outside atleast .once a year.

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

7. Shelters during rest: At every work site there shall be provided, free of cost, two suitable sheds one for meals and the other for rest separately for men and women for the use of labourer.

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

i) Thatched 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 clean. There shall be two attendance sanitary utensils shall be provided 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 but less than 50, the contractor shall provide at least one hut and one Dai to look after the children of women workers.

c) The size of 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 benefit 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 cheap shelter type, to live in which the work people in the locality are accustomed to.

A floor area of about 1.8 metres x 1.5 metres for two persons shall be provided. The sheds to be in rows with 1.3 metres clear space between sheds and 9 metres 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 metres all-round.

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APPENDIX IX.XXXVIII MONTHLY
REPORT OF CONSTRUCTION
EMPLOYEES UNDER CONTRACTORS
Return for the Month 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			
	Men	Women	Boys	Girls
(1)	(2)	(3)	(4)	(5)

- i) Total number of employees during the month
- ii) Number of employees in the work on the last working day of the month
- iii) Total wages paid for the
- iv) Total number of working

Days during the month
 v) Length of normal wage period.

To

1. The Employment officer
District Employment Office
2. The Executive Engineer
Division

Instruction to complete the Performa

1. Contractor means the person who has contracted execute the works

2. Manager means any person who manages, supervises the works on behalf of the contractor

3. Item (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 year of age or over

Item 6 - Column 4 and 5 refer to others not covered by columns 2 and 3

4. Return should cover a calendar month

5. Completed returns to reach the employment exchanges concerned on or before the 5th of the months succeeding the month to which her return relate

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