



TAMIL NADU Dr.J.JAYALALITHAA FISHERIES UNIVERSITY
NAGAPATTINAM – 611 002

TENDER DOCUMENT

INVITATION FOR PRICE TENDER

Double Cover System

Name of Work : Providing Additional Infrastructure Facilities to the
Main Campus in Tamilnadu Dr.J.Jayalalithaa
Fisheries University Campus, Nagapattinam.

EMD Amount : Rs.10,84,000/-

Date of Tender : 01.06.2022

Issued To : Thiru. M/s

Estate Officer i/c,
Tamilnadu Dr.J.Jayalalithaa
Fisheries University,
Nagapattinam.

SCHEDULE "A"**SCHEDULE OF RATES AND APPROXIMATE QUANTITIES**

(a) The quantities given here are those upon which the lumpsum tender cost of the work is based but they are subject to alternations omissions, deductions or addition 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 those Governing payment for extras or deductions or omissions according to the condition of the contract, as set forth in the General conditions to contract of the TAMILNADU BUILDING PRACTICE and other conditions or specifications of the contract.

(b) It is to be expressly understood that the measured work is to be taken (not withstanding any custom or practice to be 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 Engineer In charge and the cost calculated by measurement or weight at the respective prices, without any additional changes for any necessary and contingent works connected therewith. The rates quoted are for works in site and complete in every respect.

Item no.	Probable quantity	Description of work	RATE (in words & figures)	UNIT (in words & figures)	Amount in figures.

Vide separate sheet enclosed

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

SCHEDULE "B"
LIST OF DRAWINGS

Note : All drawings to be signed by the Contractor
as well as the officer entering in to contract

Sl. No.	Drawing No.	Description	Title	Sub Title	Revision	Date on which the drawing was supplied

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

TAMIL NADU Dr.J.JAYALALITHAA FISHERIES UNIVERSITY
Nagapattinam

- Name of work : **Providing Additional Infrastructure Facilities to the Main Campus in Tamilnadu Dr.J.Jayalalithaa Fisheries University Campus, Nagapattinam.**
- Last date of receipt of tender : **01.06.2022 up to 3.00pm**
- E.M.D. to be remitted : **RS.10,84,000/-**
- Mode of E.M.D. to be remitted : E.M.D. will be accepted in the shape of Demand Draft of the nationalized Banks in the name of The Finance Officer, Tamilnadu Dr.J.Jayalalithaa Fisheries University, Nagapattinam-1 and National Savings scripts / Deposits / Accounts / I.V.P. Postal Department and pledged in the name of the Finance Officer, Tamilnadu Dr.J.Jayalalithaa Fisheries University, Nagapattinam - 2.

Tender not submitted in sealed cover will be summarily rejected.

Contractor

**The Estate Officer i/c.,
TNJFU, Nagapattinam.**

ANNEXURE
PARTICULARS TO BE FURNISHED BY TENDERERS

1. Name and address of tenderer :

2. Name of work Providing additional Infrastructure facilities to the main campus in Tamilnadu Dr.J.Jayalalithaa Fisheries University campus, Nagapattinam.

3. Date of Tender : **1.6.2022**

4. Total value of Tender :

5. Details about E.M.D. Enclosed for the tender and its validity **including the Goods and Service Tax (GST amount)** :

6. Registered class of the tenderer with monetary limit and department in which registered (certified copy of the Registration should be attached. }

7. Recent works executed (Details about name, place of work, value of the works, etc., should be furnished. }

8. Command of labour in brief :

9. Turn over of previous years (particulars for a period of three consecutive years to be furnished) }

10. Whether Income Tax clearance certificate is enclosed; if not when it will be produced. }

11. Whether **Service Tax (GST) registration is enclosed. If not, when will it be enclosed?** }

12. Technical Assistant Details :

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

1. Name :
Qualification certificate :
Experience :

2. Name :
Qualification certificate :
Experience :

(OR)

3. Name :
If retired Civil Engineer Designation and
date of retirement.
(Copy enclosed)

4. If any other particulars :

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

SPECIAL INSTRUCTIONS TO THE TENDERERS**Part – I**

1. The tenderer should fill up the Annexure to the Tender schedule furnishing there to the required information.
2. 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.
3. All pages of the tender should be signed by the tenderer and corrections in rates should be duly attested by them.
4. A copy of the tenderer registration in P.W.D and TNJFU., as a contractor shall be attached with the tender.

The tenderer should furnish the copy of Goods and Service Tax (GST) Registration No.

5. **The Civil contractors should furnish electrical license issued by Electrical Licensing Board, Government of Tamilnadu. The Civil contractors does not have electrical license should furnish on undertaking from the Electrical Engineer, who is having Electrical License issued from Electrical Licensing Board, Government of Tamilnadu and stating that the concerned Electrical works will be executed under his supervision vide G.O.(Ms) No. 16 / Public works (G2) Dept., /dated 17.01.2018.**
6. Current Income Tax Clearance Certificate shall be enclosed with the tender.
7. The following particulars shall also be furnished by the contractor along with the tenders.
 - a. A list of details of works execution by the contractors with their value.
 - b. A list of details of works under execution by the contract with their values.
 - c. Annual turn over of the contractor for the last one year. Necessary certificate to the effect issued by the respective Bank shall be attached.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

Part-II

1. The tenders should carefully go through the tender schedule and quoted their rates for all times.
2. The rates **excluding GST** should be filled in neatly in figures and in words and taking into account the metric units specified in the tender, scribing, over writings and erasing should be avoided as far as possible.
3. The amount of each item of work should be worked out. Proper care must be taken in working out the amount of each item of work taking into account the unit for which the rates quoted and the quantity of work to be done under the item.
4. The total from each page should be arrived at and carried over to every page and the grand total value of work should be worked out and shown at the end of each slice.
5. **The tenderer shall quote the rates and prices (both in figure and words) for all the items of the works described in the bill of quantities excluding GST along with sum of the quoted tender value excluding GST at the end (both in figure and words) of each slice.**
6. The tender should be submitted along with the covering letter giving full details as called for in the tender notice and with particulars of following items.
 - a. Whether they are registered contractors if registered together with the copy or letter registering them in the appropriate class.
 - b. Details of the earned Money Deposit remitted such as small savings scripts, D.D., in which the earnest Money Deposit was paid.

In case the tenderers are eligible for concessional Earnest Money Deposit and accordingly they have tendered their No. and details from which the concession was granted to them to be specified and if possible, a copy of this aforesaid reference may be enclosed along with the tender for ready reference.

- c. Details of previous work done by the tenderers covering the cost of work the agreement No and date, the Department in which the work was carried out etc., so as to assess the previous experience of the tenderers at once as also make an easy for reference to their record of every year details should be furnished so as to see that the tenderers have minimum experience of major buildings.
- d. List of various machinery and other equipments at the tenderer disposal for use in the execution of the work.
- e. The tender form should be filled in while submitted the tender. The tenders submitted without filling up the tender form is liable to be rejected.
- f. The certificates showing the annual turn over of the Contractor for the last one year issued by the respective bank shall be attached.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

7. The tenders must be submitted in a foolscap cover there by duly signing all the conditions. Plans and schedule issued and tender documents.
8. If at any time the Assistant Executive Engineer shall be of the opinion that the contractor is delaying commencement of the work or 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 Assistant Executive Engineer, shall so advice 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 them or at any time. There after be lawful for the Assistant Executive Engineer to determine the contract which determination shall carry with the forfeiture of the Security Deposit and total of the amount with held 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 Assistant Executive Engineer.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

TENDER FORM

To
 Hon'ble Vice-Chancellor of Tamilnadu
 Dr.J.Jayalalithaa Fisheries University, Nagapattinam
 Represented by
 Estate Officer i/c.,
 Tamil Nadu Dr.J.Jayalalithaa Fisheries University.,
 Nagapattinam.
 Sir,

I/wedo hereby tender and if this tender be
 accepted undertake to execute the work of

**Providing additional Infrastructure facilities to the main campus in Tamilnadu
 Dr.J.Jayalalithaa Fisheries University campus, Nagapattinam.**

As shown in the drawings and describing in the specifications deposited in the office of the Estate
 Officer i/c., / Assistant Executive Engineer of

Circle / 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 sum basis 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 I/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 before the submission
 of my/our tender, I/We have carefully followed the instructions in the tender notice and have read the
 Tamilnadu building practice and the general conditions to the contract there in and the Tamilnadu
 building practice addenda contract volume; and that I/We have made such examination of the contract
 documents and of the plans, specifications, quantities and for 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 Government 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.

Contractor

**Estate Officer i/c.,
 TNJFU, Nagapattinam.**

4. I/We being a registered Public Works Department contractor 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:

5. (i) (a) I / We enclose herewith a challan for the payment of the sum Rupees as Earnest Money not to bear interest (to be entered in words and figures).

5. (i) (b) I / We have paid Rs. (Rupees only as against the E.M.D. of Rs. (Rupees only) Since I am/we are and eligible to pay the E.M.D., at concessional rates.

5. (i) (c) in lieu of cash deposits, I / We have enclosed a bearing No. Date issued by for a value of Rs. (Rupees only) drawn/endorsed/pledged in favour of the Assistant Executive Engineer, P.W.D.,Division.

5. (i) (d) I am /We are an hence exempted from payment of E.M.D.

6. If my / our Tender is not accepted, this sum shall be returned to me / us on my / our applications when intimation is sent to me/us for rejection or at the expiration or ninety days from the date of this tender, whichever, is earlier. If my/our tender is accepted, the Earnest Money Deposit shall be retained by the Government as security for the due fulfillment of the contract. If upon intimation being given to me/us by the authority authorized by the Government under article 299 (i) of the constitution (herein after called the accepting authority) of acceptance of my/our tender, I /we fail to make the additional security deposit, or to enter into required agreement (as specified in class IV of the tender notice) then I/We agree to the forfeiture of the Earnest 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. Such notice shall, if sent by post be deemed to have been served, on me/us at the time when in due course of post, it would be delivered at the address to which it is sent.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

7. I/We fully understand that on receipt of communication of acceptance of tender, from the accepting authority there emerges a valid contract between me/us and the Governor of Tamilnadu and the tender documents i.e., tender notice, tender with schedules. General conditions to the contract and special conditions of the tender, negotiation letter, communication of acceptance to tender, shall constitute the contract for this purpose and be the foundation of rights of both the 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.

8. I/We have also signed the copy of the Tamilnadu building practice and national building code and addenda volume thereto, maintained in the Division 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 lumpsum 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 i/c.," in the said conditions shall mean the TNJFU officer in charge of having jurisdiction of the University for the time being over the work, who shall be competent to exercise, all the powers and privileges reserved herein 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 i/c., / Assistant Executive Engineer who is incharge of the University having jurisdiction over the work shall be competent to exercise all the power and privileges reserved in favour 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 within **12 (Twelve) Months** from the date of such

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

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 Assistant Executive Engineer, the Security deposited by me/us as herein 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 under take 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.

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

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

15. In pursuance of negotiation with the Estate Officer i/c., of TNJFU on

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

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

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 dayof

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

Signature and Designation

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

ADD NEW CONDITIONS FOR GOODS AND SERVICES TAX (GST)

The Government of India has notified vide Notification No. 20 / 2017 – Central Tax (Rate), dated 22nd August, 2017 and Notification 21 No.24 / 2017 – Central Tax (Rate), dated 21st September, 2017, the concessional rate of the Goods and Services Tax (GST) at 12% [CGST at 6% + SGST at 6%] is leviable for any Government Contract, whether Civil or Electrical, irrespective of the Goods and Services Tax (GST) rate applicable on purchase of goods used in the execution of Government Contract.

And the GST amount will be calculated at 12% from the sum of total tendered value quoted by the tenderer for construction cost (excluding GST) specified in the BOQ, Subject to GST rate applicable from time to time as recommended by the GST Council

“All duties, taxes, and other levies except GST, payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder”

INPUT TAX CREDIT (ITC)

a) As per Notification 202, dated 29.06.2017 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 Government 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.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

TOTAL TENDER PRICE

The total tender price will be the of value quoted for construction (Total Basic Rate),

The amount of EMD is fixed at 1% of the contract value of work put to tender (excluding the GST Amount)”

NEGOTIATIONS

The lowest tenderer will be identified who quotes lowest total tender price which excluding 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 12% 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.

AWARD OF CONTRACT

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).

MINIMUM CRITERIA FOR QUALIFICATION

The Applicant should produce Income Tax Clearance Certificate valid for the current period, „VAT Verification Certificate (i.e. previous assessment year) and „TIN number having validity and copy of Goods and Services Tax (GST) Registration No.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

Lumpsum Contract

Tender notice

For and on behalf of the Vice-Chancellor, Tamilnadu Dr.J.Jayalalithaa Fisheries University ,Nagapattinam. the Estate Officer i/c., invites sealed tenders for the work of **Providing additional Infrastructure facilities to the main campus in Tamilnadu Dr.J.Jayalalithaa Fisheries University campus, Nagapattinam.** at his office up to 3.00 PM on **01.06.2022 in** two sealed covers containing (i). Qualification details and EMD in a separate inner cover and (ii). Price Tender Schedule in another sealed cover and put into one common sealed cover from the experienced and competent contractors / firms as detailed below.

The tenders so received on **01.06.2022** and those received by post upto 3.00 pm on **01.06.2022** will be opened on **01.06.2022** at 4.00 p.m.

The tenders should be in the prescribed form obtainable from the Estate Officer i/c., The tenders will be opened by the Estate Officer i/c., TNJFU, Nagapattinam at the place and on the date afore mentioned at 4.00 pm. The tender or their agents are expected to be present at the time of opening of the tenders. The tenderer receiving officer will, on opening each tender, prepare a statement of the attested and unattested corrections therein and hand it over to the tenderer concerned and initial all corrections in the presence of the tenderers. If any tenderers or their agents find it convenient to be presence at the time, then in such a case the tender receiving officer will, on opening the tender of the absentee tenderer, make out a statement of the unattested corrections and communicate it to him. The absentee tenderer shall then accept the statement of the corrections without any question whatsoever.

2. Tenders must be submitted in sealed covers and should be addressed to the Estate Officer i/c., TNJFU, Nagapattinam. the name of the tender and the name of the work being noted on the cover.

If the tender is made by an individual, it shall be signed with his full name and his address shall be given. If it is made by a firm, it shall be signed with the co-partnership name by a member of the firm 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.

3. Each tenderer must also send 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., and TNJFU 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.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

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

4. Each tenders must pay an Earnest money deposit of **Rs.10,84,000/- (Rupees Ten lakh eighty four thousand only) for the basic rate** amount into the branch of State Bank of India or in the Government Treasury of Sub-Treasury within the jurisdiction of the Estate Officer i/c., concerned to the credit or revenue deposits on behalf of the **Finance Officer, TNJFU, Nagapattinam.** and enclose with his tender the chalan endorsed accordingly. The earnest money deposit can also be paid in any other forms as may be approved by the State Government from time to time as per para 155 of T.N.P.W.D. code. The earnest money will be refunded to the unsuccessful tender on application, after termination is sent of 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 i/c., by suitable endorsement on the challan. The earnest money will not be received in cash or currency by the Finance Officer, have in exceptional cases. Where there are no Treasuries or banks within the jurisdiction of the officer calling for tenders. When currency notes are given, the tenderer should sign his name in full with date, on the back of all the currency notes given by him, whatever their denominations may be.

No other mode of payment will be accepted, Bank Guarantee of any kind will not be accepted.

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 convert the earnest money deposit already remitted into small savings script / Deposits / Accounts and pledge the same in the name of the **Finance Officer, TNJFU, Nagapattinam.** before signing the agreement.

5. (i) The tender will remain valid for a period of (90) 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 Officer i/c's 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, herein after called the accepting authority, make security" deposit of 2% of the value of **contract** 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 for the purpose of security deposit) The above additional security deposit at 1% will be produced before signing the agreement. The security deposit to together with earnest money deposit and the amount with held according to clause 64(1) of General conditions to the contract shall be retained as security for due fulfillment of contract. If a cash security 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

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

out from the tender or withdraws his tender after acceptance the earnest money deposit shall be forfeited to the government.

If the contractor to carryout 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 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.

6. 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 in token of such study before submitting his tender 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 i/c., TNJFU, Nagapattinam.- 7. A copy of the set of contract documents can also be had on payment or **Rs.15,000 (+) GST 12% Rs.1800/-**.

7. The tenderer's 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 standards shall be used on the work and the tenderer shall quote his rates accordingly.

8. Every tenderer is expected before quoting his rates, to inspect site of the proposed work. He should also inspect the quarries any satisfy himself about the quality and availability of materials. The best class of materials to be obtained from the quarries or other source defined shall be used on the work. In every case the materials must comply with the relevant standard specifications or in the tender notice, or as required by the Assistant Executive Engineer in any case, shall be submitted for the Assistant Executive Engineer's 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 contract or 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.

Contractor

**Estate Officer i/c.,
TNJFU, Nagapattinam.**

9. 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

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

10. A 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 this schedule is liable to alterations by omission deduction or additions at the discretion of the Estate Officer i/c., / Assistant Executive Engineer, TNJFU, Nagapattinam or as set forth in the conditions of contract.

The tenderer will however base his lump sum tender on this schedule of quantities. In the case of percentage tender system for the work costing upto Rs.100 lakh, the tenderer should note the tender percentage excess/less (instead of quoting specific rate for each item in the schedule for the works with reference to total estimate value put to tender. In case of other works costing more than Rs.100 lakh he should quote rate for each item. He should quote specific rates for each item in the schedule and the rate should be in Rupees and in sum of five paise. The rates should be written both in words and figures and unit in works. The tenderer should also show the total of each of and the Grand total of the whole contract and quote in the tender a lumpsum for which he will undertake to do whole work subject to the contract, such lumpsum agreeing with the total amount of schedule 'A' this schedule accompanying the lumpsum tender shall be written legibly and free from erasures, over writings, or conversations of figures, corrections where unavoidable should be made by crossing out initialing dating and rewriting.

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11. Tenderers offering a percentage deduction from or increase on the estimate amount (except in the case of tender called for specifically under the percentage rate tender system) and those not submitted in proper form or in due time will be rejected. Rates or lumpsum amount for items not called for shall not be included in the tender. No alteration which is made by the tenderer in the contract from, the conditions of contract the drawings, specifications or quantities accompanying same will be recognized, and if any such alterations are made, the tender schedule.

12. The tenderer should workout 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.

13. 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 Government in connection with this supply.

14. The attention of the tenderers is directed to the contract requirements as to the time or beginning as to the time or beginning work, the rate or progress and the dates for the completion of the whole work and us several parts, the following rates of progress and proportionate value work done from time to time, as will be indicated by the Assistant Executive Engineers 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 after date of commencement	Percentage of work completed (Based on the contract lumpsum amount)
Period of completion 12 Months	
I mile stone(3 months)	20%
II mile stone (6 months)	25%
III mile stone (9 months)	30%
IV mile stone (12 months)	25%

15. No part of the contract shall be sublet without written permission of the Assistant Executive Engineer nor shall transfer be made by power of attorney authorizing others to receive payment of the contractor's behalf.

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

17. The Estate Officer i/c., or other sanctioning authority has the right to reject any tender or all the tenders with assigned reasons.

18. 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

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whether they are professionally qualified or whether they undertake to employ technical men required by the department specified in the schedule below for the work. In case the selected tenderer is professionally qualified or whether they undertake to employ technical man required by the department 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, be levied 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 contractors 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 Estate Officer i/c / Assistant Executive Engineer the employment of Technical Assistant / Assistants is not required for the due fulfillment of the contract.

Note (6) : If the last date of tender happens to be a holiday, tenders will be received upto 3.00PM on the next working day.

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The schedule

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 / twos 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 upto 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.

19. The contractor should offer employment to ex-toddy tappers as per as possible. The number of ex-toddy tappers to whom he can so offer employment should be mentioned in the tender and the should under take in the agreement to offer such employment to such number.

20. 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 falls 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 penalties 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

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the Act contractor shall during the currency of the contract ensure engagement to the apprentices is 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
	❖ Brick layer	1
Above Rs. 3 Lakhs and upto Rs. 10 lakhs	❖ Building constructor	1
	❖ Brick layer	1
Above Rs. 10 Lakhs and upto Rs. 50 lakhs	1. Building constructor	1
	2. Brick layer	1
	3. 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 had 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.

21. The contractor should employ one I.T.I. trained mason for every ten masons of part there of in case of non – availability of ITI trained masons, the contractor should obtain the prior approval of the Assistant Executive Engineer concerned, before proceeding with the contract with other kind of masons.

22. The contractor shall be solely responsible for the payments of Sales Tax under the provisions of the Madras Central Rules tax Act 1939 (Madras Act II of 1939) an 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 to time to time in the rate at which such tax is payable. Sales tax 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.

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

- 23.a.
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 atleast 50% of column sizes provided in plain
 - b. Organisation (i) Technical (ii) unskilled

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c. Resources in materials like teakwood etc., and extent upto which departmental help required for procurement of materials and transport of same.

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

25. 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 15days from the date of receipt of acceptance order and execute the agreement shall entail cancellation of award contractor and forfeiture of EMD furnished.

26. In case of contractor for construction of buildings either permanent of semi-permanent buildings, a sum of equivalent to 2½ % of the value work done will be retained from the University for a period of one year reckoned from the date of completion of the work in order to enable to departmental officers to watch the effect of all seasons on the work done by the contractor. The amount so far retained with the University 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 his faulty execution or sub-standard work noticed during the above five years period at his cost.

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

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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 condition conditions (or) specifications of this contract.

2. it is to be expressly understood that the measured work is to be taken that (Not withstanding 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 Assistant Executive Engineer 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				

Signature of Contractor : (Vide separate sheet attached)

Issued to

.....on.....

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Contractor

**Estate Officer i/c.,
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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 AMENDED IN G.O.Ms.No.

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 Assistant Executive Engineers under clause 18,20,25-3-27-1, 34, 35 and 37 of General conditions of contract or as to the with holding by the Assistant Executive Engineer 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 arbitrator 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 (V II) 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.

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PART –IV

SPECIAL CONDITIONS

1. Clean fresh water and river 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 Assistant Executive Engineer.
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 anchored 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 Assistant Executive Engineer before use on the work. Country wood where specified shall be Karumarudu, Pillamarudu, Kongu, Venteak for scantling and Manja Kadambu, Aiyini for planks as may be specified and approved by the Assistant Executive Engineer.

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 fittings etc., in the course of execution and the contractors shall make good of damage without claiming extra.

9. T. BEAMS :

In the of 'T' Beams and ELL beams 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. CONCRETE WORKS :

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

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PLASTERING CONCRETE :

All corners shall be finished sharp using C.M. 1:3 not exceeding 3 inch width on each side of the corner. So also, the edges of beams of door and windows opening soffits, 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.

11. 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 and circumstances.

12. The Estate Officer i/c., reserves the right to split up the work and entrust the main work, internal water supply and sanitary arrangements to different contractors.

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

14. 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.

15. Concrete For R.C.C. works

All cement concrete for RCC works shall be machine mixed and vibrated.

Additional specifications :

1. The arrangements of M.S. Rods for reinforcement for such RCC works shall be in accordance with departmental drawing supplied.
2. The planks for forms and centering for RCC works shall be of well seasoned timber approved by the Assistant Executive Engineer 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 sheets over wooden firms centering and form work shall be provided to the extent and as ordered by the Assistant Executive Engineer 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 rods 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

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G.I. Pipes if any will be returned in good condition to the department failing which double the cost at market rate plus centage charges will be recovered from the contractor.

7. Construction Materials.

Supplemental to clause of any 20 of General conditions.

7.1 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 works 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 50 kg 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 weighment of random sample from the available stock and shall conform with the specification laid down by the Indian standards institution or other standard foreign in situation 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 go down.
- 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 atleast 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 forth with remove from the works area and cement that the Engineer-in-charge may disallow for use on account of failure to met with required quality and standard.
- 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 representative shall have free access to such store at all times.
- g. 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

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for the purpose and the contractor shall at all times, keeps his record upto so as to enable the Engineer-in-Charge to apply such checks as the may desire.

- h. 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 forth with 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.

7.2 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 – Charges, necessary I.S.I. test certificate are to be produced to Engineer-in-charge before use on works.

The diameters and weight of 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 those specified above are used the weight shall be as per standard steel tables.

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Act NO. 15 of 1999, Tamil Nadu General Sales Tax (Fifth Amendment)

In let further to amend the Tamil Nadu General Sales Tax, Act 1959

1. (1) This Act may be called the Tamilnadu General Sales Tax (Fifth Amendment) Act 1999.

(2) It shall come into force on such date as the State Government may by notification, appoint.

2. After section 7-F of the Tamil Nadu General Sales Tax Act 1959, the following section shall be inserted namely.

7-F Deduction of tax at source in works contract (1) not with standing anything contained in this Act, every person responsible for paying any sum to any dealer for execution of works contract shall at the time of the payment of such sum, deduct an amount calculated at the following rate, namely

(i) Civil Works Contract – Two percent of the total amount payable to such dealer

(ii) All other works contract – Four percent of the total amount payable to such dealers.

Provided that no deduction under sub-section (1) shall be made where.

- a. no transfer of property in goods (whether as goods or in some other form) is involved in the execution of such works contractor.
- b. The dealer produces a certificate from the assessing authority concerned that the he has no liability to pay or has paid the tax under section 3-B or section 7-C, or
- c. Declared goods are purchased from a registered dealer within the state and of works contract in the same form in which such goods were purchased.

Provided further that no such deduction shall be made under this section where the amount or the aggregate of the amount paid or credited or likely to be paid or credited, or likely to be paid or credited, during the year by such person to the dealer for execution of the works contract including civil works contract does not or is not likely to exceed one lakh rupees.

Explanation, for the purpose of this section

(i) the term person shall include

- (a) the central or a stage government
- (b) a local authority
- (c) a corporation or body established by or under a central or state Act,
- (d) a company incorporation under the companies Act. 1956 (Central Act 1 of 1956), including a central or state government undertaking.

(e) a society including a Co-operative society

(f) an educational institution (or)

(g) a trust

(ii) the term “Civil Works Contract” shall have the same meaning as in the explanation to section 7-c.

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1. Any person making such deduction shall deposit the sum so deducted to such authority in such manner and within such time, as may be prescribed.
2. Any person who makes the deduction and deposit, shall within fifteen days of such deposit issue to the said dealer a certificate in the prescribed form for each deduction, separately and send a copy of the certificate of deduction to the assessing authority, having jurisdiction over the said dealer together with such documents, as may be prescribed.
3. On furnishing a certificate of deduction referred to in sub-section (3) the amount deposited under sub-section (2), shall be adjusted by the assessing authority towards tax liability of the dealer under section 3-B or section 7-c, as the case may and shall constitute a good and sufficient discharge of the liability of the person making deduction to the extent of the amount deposited.
4. Any person who contravenes the provisions of sub-section (1) or subsection (2) shall pay in addition to the amount required to be deducted and deposited interest at two percent per month of such amount for the entire period of default.
5. Where the dealer proves to the satisfaction of the assessing authority that he is not liable to pay tax under section 3-B or section 7-C the assessing authority shall refund the amount deposited under sub-section (2) after adjusting the arrears of tax if any due from the dealer in such manner as may be prescribed.
6. The tax or interest under this section shall become due without any notice of demand on the date of actual for the payment by the person as provided under sub-sections (1) and (2).

(By order of the Governor)

ADDITIONAL CONDITIONS - II OF CONTRACT

Goods and Service Tax (GST) on Government Works Contract (Clause – 119 of Central Goods & Service ACT (CGST), 2017:-

1.The Central Government vide Notification No.24/2017- Integrated Tax (Rate), dated 21.09.2017 has amended the GST rate on Government, Contracts to 12 Percent, as described below. This rate would be applicable for ongoing as well new contracts “Service provided to the Central Government, State Government, Union Territory, a local authority or a government authority by way of construction, erection, commissioning, installation, completion, fitting out, repair, maintenance, renovation, or alternation of “

- ❖ A civil structure or any other original works meant predominantly for use other than for commerce, industry, or any other business or profession;
- ❖ A structure meant predominantly for use as
 - An educational.
 - A Clinical, or
 - An art or cultural establishment; or
- ❖ A residential complex predominantly meant for self-use or the use of their employees or other persons specified in Paragraph 3 of the Schedule III of the Central Goods and Services Tax Act, 2017.

2.Government of India has notified vide Notification No.20/2017- Central Tax (Rate), dated 22nd August, 2017 and Notification No.24/2017 – Central Tax (Rate), dated 21st September 2017, the concessional rate of the Goods and Services Tax (GST) at 12% [CGST at 6% & SGST at 6%] is leviable for any Government Contract, whether Civil or Electrical, Irrespective of the Goods and Services Tax (GST) rate applicable on purchase of goods used in the execution of Government Contract.

And the GST amount will be calculated at 12% from the sum of total tendered value quoted by the tenderer for construction cost (excluding GST) specified in the BOQ, Subject to GST rate applicable from time to time as recommended by the GST Council.

3.All duties, taxes, and other levies except GST, payable by the contractor under the contract, or for any other cause shall be included in the rates, prices and total Bid Price submitted by the Bidder.

a. As per Notification No.31/2017 – Central Tax (Rate) dated 13th October, 2017 the concessional rate of GST at 12% [CGST at 6% + SGST at 6%] 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. The Contractor is eligible to get refund of excess tax paid over or liable to pay tax as per Notification No.20/2017, Central Tax (Rate) dated 21.09.2017 and Notification No.31/2017, Central Tax (Rate), dated 13.10.2017.

b. Further, for works Contract services involving predominantly earth works (that is, constituting more than 75% of the value of the works contract) supplied to Central Government, State Governments, Local Authority, Governmental Authority for Government Entity shall be taxed at 5% as per Notification No.31/2017 – Central Tax (rate) dated 13th October, 2017. Therefore, for such contract the amount of GST is to be calculated at 5% [CGST at 2.5% + SGST at 2.5%] over and above the Basic Rate.

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4.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 Government 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 persons 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.

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

6.Out of the above 5% retention amount, 2^{1/2}% of (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.

7.The balance 2^{1/2}% will be retained for a period of 1 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.

8.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, 12% of GST will be paid to the Contractor based on the value of work done for Construction by the Employer. After the payment including 12% of GST, the Contractor should pay the GST Amount to Government through his GST Registration No. Also the contractor needs to submit the Material purchase bill mentioning the name of the work/s in the package and GST No. to the Employer.

c. FIRST BILL PAYMENT :-

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

d. INTERMEDIATE BILL PAYMENT :-

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

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e. FINAL BILL PAYMENT:-

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

f. SUBMISSION OF GST PAID DETAILS OF FINAL BILL:-

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

10.It is to be expressly understood that the measured work is to be taken net (Not withstanding any custom or practice to the contrary) according to the actual quantities. When in places and finished according to the drawings, or as may be ordered from time to time by the Collector and the cost calculated by measurement or weight at the respective prices, without any additional charge for any necessary or contingent works concerned therewith. The rates quoted excluding GST Amount are for the finished works in situ and complete in every respect.

Tender Accepted with Violent Excess or Unworkable Rates:

The tender is accepted with excess rates (+) 15% and above for certain items, the quantity of work under such items should not exceed on any account during execution. On the same analogy, it should be ensured that the quantity for items of work with unworkable and low rates i.e. less than 10% of the estimates rates, are not reduced during execution.

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ADDITIONAL CONDITIONS : 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 Assistant 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 contract by the P.W.D., to obtain access to quarries approved by Assistant Executive Engineer. 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 works 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 used 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 contractors 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 departments 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.

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 Assistant Executive Engineer.
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 contractors 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 be must offer employment to Ex-servicemen ex-toddy tappers and unemployed agricultural laborer's 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.
11. References to TNBP in the schedule of quantities referred to printed. 1985 and 1988 and addenda and corrigenda issued thereafter.
12. The construction of building will be deemed to be completed only if any items of works including finishing items of works contemplated therein are executed.

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13. The contractor shall abide the contractor's labour regulation or the TNJFU Framed by the Tamilnadu Government.

13.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)

14. 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.

15. the sales tax clearance certificate should be furnished before the finalization of contract.

16.(a). E.M.D:

The acceptance of E.M.D. in various approved forms is subject to the specific condition that the successful tenderer should pay the security deposit (including E.M.D.) in the form of small savings scripts duly pledged in favour of the Assistant Executive Engineer concerned in lieu of other mode of payment made for E.M.D.

(b) Security deposit:

In case of contractors for building works the security deposit (i.e.2%) of the value of contract **excluding GST amount** minus the E.M.D. already remitted is to be produced in the shape of small saving scripts, deposits, accounts duly, pledged to Finance officer, TNJFU, Nagapattinam, concerned before signing the agreement.

16. Risk Insurance :

The work executed by the contractor under these contract shall be maintained at the contractors risk, until the work is taken over by the Assistant Executive Engineer. The Government shall not be liable to pay for any loss or damages occasioned by or arising out of fire, flood, volcanic eruption, earth quake, 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.

17. Standard 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 contractors is invited to Tamilnadu building practice which should be followed in all respect both in latter and sprit. The materials used, the workmanship, the mode of execution of the work etc., should confirm the relevant specification on TNBNP.

18. 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.

WITH HELD AMOUNT:

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

Retention of 2 ½% for one year:

In case of contracts for construction of buildings either permanent (or) semi-permanent buildings a

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sum equivalent to 2 ½% of the value of work done will be retained with the Government for a period of one years 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.

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.

In addition to the aforesaid security deposit, retention amount shall be deducted from the running account bills, a sum equivalent to 5% (Five percent) of the total value (including the Goods and Service Tax (GST) Amount for all 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 2 ½ % 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 2 ½ % 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 defect's liabilities attached to the contract is over.

In addition to the aforesaid security deposit, the Assistant Executive Engineer 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.

19. Recovery of dues under revenue recovery act:

Any amount fallen 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.

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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 with – held 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 Assistant Executive Engineer.

1. First Aid :

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

2. Drinking water:

1.
 - a. water of good quality fit for drinking purpose shall be provided for the workpeople on scale not less than fifteen liters per head per day.
 - b. Where drinking water is obtained from an intermittent public water supply system each work place 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 property chlorinated before water is drawn from it for drinking. All such wells shall be entirely closed in and be provided with a trap door which shall be dust and water proof.
2. A reliable pump shall be fitted to each covered well, the trap door shall on kept locked and opened only for cleaning or inspection which shall be done at least once in a month.

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3. Washing and bathing places

Adequate washing and bathing places shall be provided separately for men and women, such bathing place 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 all 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 Assistant Executive Engineer in any particulars 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 water borne sewage system all latrines shall be provided with receptable on dry earth system which shall be cleaned atleast four times daily and atleast twice during working hours and kept in strictly sanitary condition. The receptable shall be tarred inside and outside atleast once a year.

The ex creta from the latrines shall be disposed off at the contractors expenses in out way pipe approved by the local public health authority. The contractor shall also employ adequate No., of scavengers and conveyance staff to keep the latrines and urinals in a clean conditions.

5. Shelters during rest

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

6. Creches :

At every work place at which 50 or more women ordinary employed there 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 infants' games and play and the other as their bed room. The huts shall not be constructed on a lower standard than the following.

1. thatched rooms
2. mud floors and walls
3. plants spread over the mud floor and covered with meeting.

The site of the crèches 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 are concerned. The No of huts shall be restricted to children their attendants and mothers of the children.

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7. Canteen:

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

8. Sheds for workmen

The contractor should provide at his own expense ahead for housing the workmen. The sheds shall be on standard not less than the cheaper shelter type to live in which the work people pertaining in the locality are accustomed to. A floor area of 1.80 mx1.30m for two persons shall be provided. The sheds to be in rows with 1.3 m a clear space between sheds and 9m clear space between rows if condition permit. The work people camp shall be laid out in units of 400 persons each unit to have a clear space of 12m all-round.

Additional condition: 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. suitable scaffolds shall be provided for workmen for all work that cannot be safely done from ladder or by other means.
2. A Scaffold shall not be constructed taken down or substantially altered except.
3. a. under the supervision of the competent and responsible persons and
- b. By as far as possible competent workers possessing adequate experience in such kind of work.
4. Scaffolds shall be so constructed that on part thereof can be displaced in consequence of normal use.
5. Scaffolds shall not be over loaded one as far as practicable the load shall be evenly distributed. Before installing lifting gear or scaffolds, special precaution shall be taken to ensure the strength and stability of the scaffolds.
6. scaffolds shall be periodically inspected by a competent person.
7. Before allowing a scaffold to be used by the workmen every employer shall whether the scaffold has been erected by his workmen or not take steps to ensure that it functions fully with the requirements of this articles.

Article -2.

1. Working platforms gangways and stairways shall be so constructed that part thereof can be safe unduly (or) equally.
2. To be so constructed and maintained to obviate from risks of persons tripping or slipping and to be kept free from any unnecessary obstructions.

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3. Every working platform gangway working place and staircase shall be suitably tested.

Article -3.

1. Every opening in the floor of a building or on 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 that to be prescribed by national laws or regulations suitable precaution 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 ladder shall be securely fixed and of such length as to provide secure hand – hold and foot hold at every position which it is used.
3. Every place where work is carried out and the means of approach there to 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 defect and to be kept in good working order.
 - b. Every rope used in hoisting or lowering materials on as a 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 or regulations.
2. Every chain ring, hook shackle level and pulley block used in hoisting or lowering materials or as a 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 machines of 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 mean as will request to a minimum the risk of the accidental descent of the
3. Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load been 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 these 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 al necessary steps be taken for the prompt, reasons of any persons in danger.

Article -12:

Adequate provision shall be made for promptly first and treatment of all injuries likely to be sustained during the course of the work.

Article -13:

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 b e provided to facilitate removal of urgent cases to hospital at other work places, some conveyance facilities such as care shall be kept readily available to taken injured persons or persons suddenly taken seriously ill to the nearest hospital.

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General specifications:

1. Cement concrete flooring tiles shall be manufactured from mixer of cement natural aggregates and colouring materials where required by pressured process. Fixing manufacture, the tiles shall be subjected to a pressure not less than 140kg/cm^2 .
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 atleast for 7 days and subsequently if necessary for such a longer period that would ensure their conformity to the requirements to Transverse 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 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 coloured tile's general purpose.	3 mm
Plain cement and plain coloured tiles for heavy duty	6mm
(Mosaic) terrace tiles with chips of size varying from the smallest upto 6mm.	5mm
(Mosaic) terrace tiles with chips 12mm size ranging from the smallest upto 12mm, or $\frac{1}{2}$ "	5mm
(Mosaic) terrace tiles with chips of size varying from the smallest upto 20mm or $\frac{3}{4}$ "	6mm

6. Colour and appearance: The colour and texture of the wearing layer 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.

8. Genera 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

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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 absorptions 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 coves 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 and the flat floors. The colours of the tiles shall generally match other coloured face adjustment or as may be directed by Assistant Executive Engineer.

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 walls, the finish plastered surfaces.

Based on the modulus of rupture of 30kg sq m for dry test and two thirds of the value of wet test.

GUIDELINES FOR ADDITION OF STRENGTH GARDENING OF CONCRETE:

Plain and reinforced concrete have been graded according to the cube compressive strength and designated as M100. M150. M200. M 250. M300 and M400 the designation of concrete the letter refers to the mix and the Number to the specified 28days work cube compressive strength of that mix expressed in Kg/cm².

Approximately the M.100 M150. M200 and M250 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 materials 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 50kg of cement shall not normally exceed 450kg.

For any particular item, compressive strength required to be obtained by the concrete at 26days in the preliminary and works tests on the 15cm. cubes 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 Assistant Executive Engineer, 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 Assistant Executive Engineer 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 works tests also show the required strength.

If during the progress of work the contractor wishes to change the materials the proportion shall be mixed on the basis of fresh preliminary tests to give the required strength after the Assistant 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 water 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 its shall be weighted separately from the aggregates. All the weighting equipments 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 prevent

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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 needs 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. works 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 sampling shall be spread as evenly as possible throughout the day, when wide changes in weather conditions occur during concreting additional samples may be taken as desired by Assistant Executive Engineer.

All expenses on the tests shall be borne by the contractors 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 Executive Engineer 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 cast 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. Proportions of mix
8. Description of the portion of work represented by the sample and quantity of concrete represented by the sample.
9. Initials of Assistant Executive Engineer and contractors authorized agent in whose presence sample is taken.
10. Result of 7days test.

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11. Result of 28 days test

12. Review remarks by Assistant Executive Engineer.

Extract of: IS 456 – 1964

4.2.2.1: Plain and reinforced concrete shall be in seven graded designed M100, M150, M200, M250, M300, M350 and M400.

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.

4.2.2.2. Strength requirements of concrete

4.2.2.2.1 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.

4.2.2.2.2.3 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 the **Case** 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 or at 7days, or compressive strength tests at days may be carried out in 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 tests carried out in a particular job over a reasonably long period it has been established to the satisfaction of the Engineer incharge 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 incharge may be suitably relax the frequency of 28 days compressive strength test specified in the table 5 provided the expected strength values at the specified early age are consistently met. For this purpose, the values given in Table 2 may be taken for general guidance in the case of concrete made with ordinary cement.

2. where the strength of concrete mix, as indicated by tests, lies between strength for any two grades specified in Table 1. such concrete shall be classified for all purpose as a concrete belonging to the lower of the two grades between which its strength lies.

4.3 PROPORTIONING AND WORKS CONTROL

4.3.1 methods of proportioning the determination of preparations of cement aggregate and water to attain the required strength shall be made by one of the following.

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- 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”.

4.3.2.1 Controlled concrete:

4.3.2.1 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 M100, M150, M200, M250, M300, M350 and M400.

4.3.2.2 : 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.

4.3.2.3 Except where it can be shown to the satisfaction of the Engineer in charge that supply of properly graded 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 stock piles 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 weighed separately to check the net weight. Where the cement is weighed on the site and not in bags, it should be weighed separately from the aggregates. Water should be either measured by volume in calibrated tanks (or) weighed all measuring equipments 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 aggregate 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 of the added water should be adjusted to compensate for

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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 building, may be referred to allow for the variation in weight of aggregate due to variation their moisture content suitable adjustments in the weights of aggregates should also be made.

4.3.2.6 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.

4.3.2.7 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 and 1950 may be adopted for this propose.

4.3.2.8 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.

4.3.3 Ordinary concrete:

4.3.3.1 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.

4.3.3.2 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 form 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 these 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 over come 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 limit 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.

4.3.3.4 Workability of the concrete should be controlled by directed measurement of water content, making allowance for any surface water in the fine and coarse aggregates. The slump test in accordance with IS 1199/1959 may be used as guide.

4.3.3.5 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 2336/Part III 1963. In the absence of exact data, the amount of surface water may be estimated from the values given in Table 4.

4.3.3.6 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 inter-polation shall be permissible.

4.4 Sample size and acceptance criteria.

4.4.1 All tests shall be carried out in accordance with IS 516-1959.

4.4.2 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.

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 28days after mixing conducted in accordance with IS 516-1959	
	Preliminary test Min	Works test min
M.100	135	100
M.150	200	150
M.200	260	200
M.250	320	250
M.300	380	300
M.350	440	350
M.400	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

- Designing a concrete mix before the actual concreting operations starts.
- Determining the adjustments required in the designed mix when there is a change in the materials used during the execution (or)
- 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 works test with the approval of the Engineer incharge 10cm cub as may be used in place of 15cm provided 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 specified by the Engineer incharge 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 s 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 incharge.

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Note 5: Cylinder strength:

Compressive strength tests may with approval of the Engineer incharge 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 test shall be conducted in accordance with IS : 516 – 1959

Grade of concrete	Compressive strength on 15cm cube min. at 7day	Modulus of rupture by beams test	
		At 72+2 Hours	At 7 Days
M.100	70	12	17
M.150	100	15	21
M.200	135	17	24
M.250	170	19	27
M.300	200	21	30
M.350	235	23	32
M.400	270	25	34

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

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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 course aggregate mix	Proportion of fine aggregate to course aggregate	Quantity of water per 50 kg of cement mix
1	2	3	4
M.100	300	Generally 1:2 for fine aggregate to course aggregate by volume but subject to upper limit of 1:1 ½ and a lower limit of 1:3	34
M.150	220	-do-	32
M.200	160	-do-	30
M.250	100	-do-	27

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 M.100, M.150, M.200 and M. 250 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 with water carried by average aggregate:

Aggregate	Approximate quantity of surface water (M3)
(1)	(2)
Very wet sand	120
Moderately by 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 IN TENDERS RULES

**[G.O.Ms.No.309, Finance (Salaries), 17th October 2017, Purattasi 31,
Hevilambi, Thiruvalluvar Andu – 2048]**

No.SRO A-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 hereby made shall come into force on 17th day of October, 2017.

AMENDMENT

In the said rules, after rule 13, the following rule 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)”.

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Special Conditions for Quality Control System

- 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 Assistant Executive Engineer (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 Assistant Executive Engineer **at the contractors own cost**, provided that the samples are collected with proper identification marks in the presence of the Engineer-in-Charge or his authorised 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.

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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 specimens taken from the same days work				Minimum Frequency		
				Cubes		Beams				
7days compressive strength test as optional test if desired	28 days compressive strength test			7 days compressive strength test as an optional test if desires	25 days compressive strength test	72+2 Hours test as an optional test if desired	7 days test as an optional test if desired	In terms of the quality of concrete	In terms of period	Criteria for acceptance
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 –I (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 incharge, may decide. However in the case of concrete sample shall be drawn on each day for the first four day of concreting and there after atleast.	Accepted to average strength of the specimen test is not less than the strength specified Table – I (For optional test see Table-2) 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 atleast 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 incharge may decided. However in the case of controlled concrete samples shall be drawn on each day for the first four days of the concreting and there after atleast one seven days concreting	Strength but this 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 the one out of five consecutive tests may give a value less than the specified strength.

* standard deviation = $d^2/(n-1)$

Where 'd' individual deviation from the average and 'n' number of specimens tested

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SPECIAL CONDITION

1. The quoted percentage implies and inclusive of the rates for all items including cost and conveyance of all materials, labour charges, hire charges for all tools and plants, payment of duties and taxes leviable, insurance and any incidental service etc.,
2. The Work should be carried over as per SSRB and MORTH, IRC and other specification issued from time to time by the higher authorities.
3. Quality control should be maintained during execution of work at every stage. The contractor should afford necessary facilities to the departmental officers to conduct necessary test at the site during execution, all expenses connected therewith shall also be borne by the Contractor.
4. The sub base material should be tested for suitability in accordance with CL. 401 of MORTH revision IV form Highways Research Station or any other reputed institute and get it approved by the competent authority before execution by the contractor at his cost.
5. If there is any change in the material or composition no extra will be paid. The contractor has to get the design mix approved to give the designated CBR without any extra cost.
6. All the items contemplated in the tender or for the work to be carried out as per MORTH-TV revision. Specifications only for semi dense Bituminous concrete the work has to be done as per clause 508 of MORTH specification and the said the specification require necessary mix design based on the quality of materials proposed by the contractor to be used for the work. Therefore, necessary job mix formula is to be obtained by the contractor from the competent authority of Highways research station / Indian Institute of Technology / Regional Laboratories / Government Engineering Colleges / Aided Engineering Colleges / Research Institutions.
7. The contractor is bound to get the job mix formula and to do the work based on the test results as given by the Highways research station / Indian Institute of Technology / Regional Laboratories / Government Engineering Colleges / Aided Engineering Colleges / Research Institutions. The tenderer final amount includes expenses towards the above said job mix formula and no fluctuation or variation from the quoted rate is admissible for doing this item of works as per job mix formula

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SPECIAL CONDITIONS OF CONTRACT:

The special conditions described hereunder shall have the meaning and intent out lined in clause 107-05 of P.S. to S.S.R.B. The contractor's quoted rate shall be inclusive of all the elements and costs required to comply with them. The special conditions comprise of two parts viz I) Technical specification and II) Commercial conditions.

I. TECHNICAL SPECIFICATION:

General:

The entire works, as described in Scope of Work ("General Conditions of Contracts") shall be done in accordance with the technical specifications. These technical specifications shall comprise the following.

Part I General Specifications

Part-I Shall comprise the "Specification for Road and Bridge Works" Third Revision - 1997 and the corrigendum published at New Delhi by Indian Roads Congress on behalf of Government of India, Ministry of Surface Transport (Road Wing), and shall be deemed to be bound into this document and becomes part and parcel of the agreement.

Part II Supplementary Specifications

Part-II Shall comprise various substitute. Modified and Additional Clauses to the "Specification for Road and Bridge Works" referred to in Part I (to cover specific aspects of the particular works not covered by the same) and accordingly, the said specification so amended shall form part of the contract. -

A substitute clause as indicated by the suffix 'S' is an amendment of a clause in Part-I - General Specification and supersedes the whole of that clause. Then any reference to the superseded clause shall be deemed to refer to the substitute clause.

A modified clause as indicated by the Suffix 'M' shall be read as a partial amendment to the cited clause in Part-I - General Specifications. Any provision in the said modified clause conflicting with those of Part-I - General Specification shall be deemed to supersede the relevant portion of Part-I - General Specification. Any other non-conflicting provisions shall apply and NOT deemed as substitute.

An additional clause, as indicated by the suffix 'A' shall bear additional clause numbers not cited in Part-I - General Specification and shall include provisions supplementing those of Part-I - General Specification. In so far as any substitute, modified and additional clause may conflict or be inconsistent with any of the provisions of Part-I - General Specification under reference, the substitute, modified and additional clause shall always prevail. Words like 'Contract', 'Contractor', 'Drawing', 'Works', 'Site', 'Provisional Sum' used in the above

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mentioned specification shall be deemed to have the same meaning as understood from the definition of these terms in and as included in the General Conditions of Contract.

In the absence of any definite provisions on any particular issue in the aforesaid specification; reference may be made to the latest IRC Codes of practice, I.S. Specifications and SSRB, in that order: Where even these are silent, the construction and completion of the works shall conform to sound engineering practice and, in case of any dispute arising out of the interpretation of the above, the decision of the Engineer-in-charge shall be final and binding on the contractor. These shall be deemed to be bound to this document and becomes part and parcel of the agreement.

Supplementary Specifications for Structures

The following list shows the clauses of Part-I which are either substituted or modified or added:

Substituted clauses	112.1, 112.2, 112.3, 1006, 1009.3, 2901 to 2905, 2908 to 2911.
Modified clause	112.4, 112.5, 112.6, 1009.3, 1010, 1209, 1716.2.5(a), 2005.1, 2005.2, 2602(c).
Added clauses	103, 109.8, 120.7, 304.3.7, 305.2.2.2, 305.3, 1012.1, 1507, 1710, 1712, 1714, 1716, 1802.1, 1802.2, 1807, 1809.5, 2005.1, 2501.2.3, 2600
New clauses	1816, 2211, 2912

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COMMERCIAL CONDITIONS

- 1.1. Steel and Cement will not be supplied by the department. The contractors have to procure the same and use it on the work.
- 1.2. Steel confirming to standards and specifications shall be procured.
- 1.3. The cement should be procured in lot from the authorized dealers and should not be purchased locally in piecemeal.
- 1.4. The contractors have to produce the Test Certificate confirming to I.S. and other accepted codes and standards in support of the quality of materials procured. If the materials are found to be substandard or not confirming to the prescribed test standards, the same will be rejected without any claim for damages whatever.
- 1.5. The quoted rate shall be inclusive of cost of steel and cement conveyance, handling and storage charges and other requisites as contained in clause 103-04 of P.S. to S.S.R.B.
- 2.1. The bitumen and bitumen emulsion required for use in the work will not be supplied by the department.
- 2.2. The contractor has to procure the bitumen of appropriate grade and emulsion as per specification required for the items of work as per Standard specification and use it on the work.
- 2.3. The quoted rate shall be inclusive of cost of bitumen, bitumen emulsion conveyance and handling and storage charges and other requisites as contained in clause 103-04 of P.S. to S.S.R.B.
- 2.4. All the requisite tests to ensure quality of bitumen, bitumen emulsion conveyance and handling and storage charges and requisites as contained in clause 103-4 of P.S. to S.S.R.B.
- 2.5. RCC pipes confirming to IS 458 has to be procured by the contractor and used on the work. The quoted rate shall be inclusive of cost of pipes, conveyance handling and storage and other requisites as contained including 103-04 of P.S. to S.S.R.B.
- 2.6. The contractor has to produce inspection and tests certificates by the Director General of Supplies and Disposals for the standard and quality of pipes otherwise, pipes will be rejected.
- 3.1. All the provisions contained in clause 107 of P.S. to S.S.R.B. in regard to quality of materials and control of work shall be applicable and enforced.
- 4.1. The contractor shall be responsible to make good and remedy at his own cost any defect which may develop or may be noticed and intimation of which has been sent to the contractor by a letter sent by hand delivery or by registered post before the expiry of a period of 36 (thirty six) months (hereinafter referred to as

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defects liability period) from the completion of whole of the work, for major works like formation of road including metalling and black topping.

- 4.2. In case of works like resurfacing of the existing roads and black topping, the defect liability period shall be 6 (six) months.
- 4.3. In the event of the contractor failing to rectify the defect or damages within the period specified by the Engineer-in-charge in his notice aforesaid, the Engineer-in-charge may rectify or remove and re-execute the work and/or remove and replace with other materials or articles complained of, as the case may be, by or other means at the risk and expense of the contractor.
- 4.4.1. At the time of making final payment for major works like formation of road including metalling and black topping 2^{1/2}% of the total value of work done shall be retained by the department. This amount will be refunded to the contractor on the expiry of Two years reckoned from the date of completion of work provided that the contractor execute and indemnity bond for a further period of Three years indemnifying the Government against any loss or expenditure incurred to rectify any defect noticed due to faulty workmanship by the contractor or substandard materials used by the contractor.
- 4.4.2. In case of work like resurfacing of the existing road and black topping. The amount will be refunded to the contractor on the expiry of six months from the date of completion of work.
- 4.4.3. At the time of making final payment for minor /major bridge works 2^{1/2}% of the total value of work done shall be retained by the department. The amount will be refunded to the contractor on the expiry of Two years reckoned from the date of completion of work provided the contractor execute an indemnity bond for a further period of Three years indemnifying the Government against any loss or expenditure incurred to rectify any defect noticed due to faulty workmanship by the contractor or substandard materials used by the contractor.
- 4.5. Making final payment shall not discharge or release the contractor from his responsibilities and liabilities under the contract.
5. In case, when the departmental tools and plants are hired to the contractors in places of work where the standard schedule of rates of Public works department allow extra special tract percentage, the hire charges will be enhanced by the corresponding extra percentage and recovered from the contractor.
6. Without limiting his obligations and responsibilities under the contract, the contractor shall insure in the joint name of the Government and the contractor against all loss or damage from whatever cause (other than the expected risks) for which he is responsible under terms of contract and in such a manner that the Government and the contractor are covered during the period of construction of the works and defects liability period for
 - I. The works and temporary works to the full value of such works executed from time to time.
 - II. The materials, constructional plant and other things brought to site by the contractor to the full value of such materials, constructional plants and other things.

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7. Any amount due from the contractor which he has failed to remit after the notice from the Engineer shall be caused to be recovered under Tamil Nadu Revenue Recovery Act as if it was an arrear of land revenue.
8. The tenderer who are themselves not professionally qualified shall undertake to employ qualified Technical men at their cost to look after the work according to the scale indicated below. In case, the tenderer is professionally qualified, he must employ technical men to meet the norms besides himself. The tenderers should state in clear terms whether they are professionally qualified or whether they undertake to employ Technical Assistants required by the department as specified in the schedule below for the work. In case the selected tenderer is professionally qualified or has undertaken to employ technically qualified personnel under him, he shall see that one of the Technically qualified men is always present at the site of the work while the work is in progress personally checking all the items of works and paying extra attention to such works as may demand special attention (ie) bituminous courses R.C.C. etc.

Above Rs.5.00 Lakhs Upto Rs.10.00 Lakhs	One B.E. Civil (or) equivalent Degree holder with three years experience in Civil Engineering.(or) not less than One Retired Sub-Divisional Officer/Assistant Executive Engineer (or) Assistant Divisional Engineer.
Above Rs.10.00 Lakhs Upto Rs.25.00 Lakhs	One B.E. Civil Engineering with three years experience (or) One Retired Sub-Divisional Officer plus One Diploma Holder in Civil Engineering or two diploma holders in Civil Engineering with three and five years experience
Above Rs.25.00 Lakhs Upto Rs.50.00 Lakhs	One B.E. Civil (or) equivalent Degree holder with three years experience or not less than One Retired Sub-Divisional Officer/Assistant Executive Engineer plus two diploma holders in Civil Engineering or two retired Junior Engineer. (ALTERNATIVE) One B.E. Civil (or) equivalent Degree holder with three years experience or not less than One Retired Sub-Divisional Officer and one more B.E. (Civil) or equivalent
Above Rs.50.00 Lakhs	Two B.E., (Civil) or equivalent degree holder with three years experience not less than two retired Sub – Divisional Officers / Assistant Executive Engineer Plus Four Diploma holders in Civil Engineering or Four retired

If the tenderer fails to employ the Technical men as indicated above for the works, penalty shall be levied during the period of such non-employment of technical men.

A penalty of Rs.5,000/- per month for Diploma holder and Rs.10,000/- per month or degree holder be levied in case of default on the part of the contractor in following the norms mentioned above.

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Notes:-

In case, the contractor who is professionally qualified is not in a position to remain always at the site of the work for checking of all items of work and paying extra attention to such works as may demand extra special attention (i.e.) bituminous courses, reinforced concrete work etc., he should employ technically qualified men (as prescribed) for the work.

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 Estate Officer i/c., TNJFU the employment of Technical Assistant / Assistant is not required for the due fulfillment of the contract

9. Income Tax at 2% of the bill amount will be recovered from all interim bills and final bill of the contractor or at such rates which the Government may by notification fix from time to time.
10. Sales Tax at 2% of the bill amount will be recovered from all interim bills and final bill of the contractor or at such rates which the Government may by notification fix from time to time.
11. The Contractor will have to pay penalty to the Telecom Department if damage is caused by hi, to the loss incurred by the Telecom Department for the said damage.
12. Recovery at 0.30% of the estimated value of the contract will be made from the contractors bill or at such rates, the government may be notification fix from time to time towards Tamilnadu Manual workers welfare with reference to the Tamilnadu Manual workers (Regulation of employment and conditions of work) Act 1982.
13. In case of any dispute or difference between the parties to the contract either during the progress or after the completion of the work or after the determination / abandonment of the contract or any matter arising there under and if the claims value exceeds Rs.2.00 Lakhs (Rupees Two Lakhs only) the same shall be settled by filing a civil suit before a Civil Court having jurisdiction for decision. If the claims monetary value is less than Rs.2.00 Lakhs (Rupees Two Lakhs only) the dispute shall be referred for arbitration to a sole Arbitrator.
14. The contractor should not engage child labour (below the age of 16 years) in the execution of works. If the contractor engage child labour the work contract assigned to him shall be black listed for 3 years.

Contractor

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15. Gravel Sub-Base : For the work involves Gravel Sub-Base the mix ratio sand, gravel and quarry fine aggregate mix has to be get designed from HRS at contractor's own cost and approved by the competent authority (HRS) before proceeding with the work. If there is any change in the above material in higher side no extra amount will be paid .

SCHEDULE

Name of the Work: Providing Additional Infrastructure Facilities to the Main Campus in Tamilnadu Dr.J.Jayalalithaa Fisheries University Campus, Nagapattinam.

a) The quantities given here are those upon which the lump sum tender cost of the work is based but they are subjected to alterations, omissions, deduction, addition 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 those governing payment for extra or deduction or omission according to the conditions of the contract as set forth in the preliminary specification of the Tamilnadu Detailed Standard Specifications, other Conditions or specifications of this contract.

b) It is to be expressly understood that the measured work is to be taken out (notwithstanding any custom or practice to the contrary) according to the actual quantities when in place and finished according to the drawing or as may be ordered from time to time by the **Estate Officer** and cost calculated by measurement or weight at the respective prices, without any additional charge for the necessary or contingent works connected therewith. The rates quoted are for works in site and complete in every respect.

Sl. No.	QTY	DESCRIPTION OF WORK	UNIT	RATE	RATE IN WORDS	AMOUNT
1	1.00	Installation charges inclusive of transportation to site and assembling the bored pile equipment employed for the works including setting of pile driving equipments with all accessories and tools of each of the pile location based on the sequence of operation approved by the departmental engineers irrespective of the location and distance involved in movement of pile driving equipment for all sizes of piles and dismantling the bored pile equipment etc., complete.	No			
2		Providing, driving and installing driven cast-in-situ reinforced cement concrete piles of grade M-30 of specified diameter and length below the pile cap, to carry safe working load not less than specified, excluding the				

Contractor

**Correction:
Overwriting:**

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		cost of steel reinforcement but including the cost of shoe and the length of pile to be embedded in the pile cap etc. all complete. (Length of pile for payment shall be measured from top of shoe to the bottom of pile cap) : 500 dia pile				
a	989.00	500mm dia pile	Rmt			
3		Vertical load testing of piles in accordance with IS 2911 (Part IV) including installation of loading platform and preparation of pile head or construction of test cap and dismantling of test cap after test etc. complete as per specification & the direction of Engineer in-charge. (As per structural drawing 500mm dia pile 400KN, as per load testing 1.5 time load testing)				
	1.00	500mm dia pile @ (Working pile)	each			
4	5536.00	Earthwork excavation for foundation (for narrow excavation) to full depth as per designed in all soils and sub soils except soft disintegrated rock not requiring blasting and hard rock requiring blasting and bailing water wherever necessary. Refilling the sides of foundation with excavated earth other than sand in layers of well rammed and compacted and depositing the surplus earth in places shown by the departmental officers with an initial lead of 10m and initial lift of 2m and clearing and levelling the site etc., complete complying with standard specification.	cu.m			
5	671.00	Providing Pre-constructional anti- termite treatment and creating a chemical barrier to the building by injecting	sq.m			

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		chemical emulsion of required concentrations raft slab and beam, under Cellular raft slab, around the footings, column pits, trenches, pits, wall trenches, back fill, plinth filling, junction of wall and floor, side walls of foundation, external perimeter of building, surrounding of pipes expansion joints, etc. as per IS specification and as per the instructions of chemical manufacturer and all as directed. The treatment shall be carried out strictly in accordance with the technical specification and conforming to IS 6313 (PART-2) or equivalent BS specification.				
6	405.00	Supplying and M. sand filling in foundations and basement with filling sand in layers not exceeding 15 cm. thick, well watered ,rammed and consolidated etc. complete complying with standard specifications.	cu.m			
7	404.10	Plain Cement Concrete 1 : 4 :8 (one part of cement, four parts of sand and eight parts of hard broken stone) using 40 mm gauge hand broken hard broken granite stone jelly complying with standard specifications in foundations and basement.	cu.m			
8	229.00	Refilling the approved good quality earth in plinths, area development etc., wherever specified in layers is not exceeding 200 mm thick., with available earth at site.	cu.m			
9	9709.00	Supplying and filling of good earth filling locally available earth transported from the out side including consolidation, levelling specified in layers of not exceeding 200 mm thick., etc. complete.	cu.m			
10		Supplying and erecting Centring and Shuttering for soffits including necessary supports and strutting upto 3 M height for plane surfaces as detailed below in all floors with all cross bracings using Mild Steel sheets of size 90 x 60 cm and 10 BG stiffened with welded Mild Steel angle of size				

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		25mm x 25mm x 3 mm for boarding laid over silver oak joists of size 10cm x 6.50 cm spaced at above 90 cm centre to centre and supported by casuarina props of 10cm to 13 cm dia spaced at not more than 75 cm centre to centre etc. complete complying with the standard specification.(Payment for centring shall be given after the concrete is laid).				
a.	810.00	Footing, Plinth Beam, etc.	sq.m			
b.	11325.00	Plain surfaces such as roof slab, floor slab, beams, lintels , loft, sill slab, staircase waist , portico slab and other similar works.	sq.m			
c.	511.00	Square and rectangular columns and small quantities such as sunshades, parapet cum drops, window boxing ,fin projections and other similar works.	sq.m			
d	925.00	Additional Shuttering	sq.m			
11		Supplying and placing of Ready Mix M30 grade - 360 KG/CUM minimum cement content of with OPC 53 Grade of Concrete confirming to IS 456/2000 for Reinforcement Cement Concrete Structural elements under controlled water cement ratio using 20mm and downgraded machine broken granite stone jelly including transportation and pumping excluding cost of centring and shuttering and reinforcement but including curing, finishing etc as directed by departmental officers				

Contractor**Correction:
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a	3261.20	Foundation & Basement	cu.m			
b	225.30	Ground Floor	cu.m			
c	15.20	Terrace Floor	cu.m			
12	265.69	Supply, fabrication and placing of reinforcement steel of high yield strength ribbed bars of various diameters and grade conforming to IS 1786 for reinforced concrete work. The work includes de-coiling, straightening, cutting, bending, fabricating, and placing in position, at all levels including lead and lift, according to drawings, specifications etc. complete and supply & use of 18G black annealed binding wire double fold to tie the bars in position and providing precast cement/ PVC cover blocks for main reinforcement to ensure specified cover and complete., including all labour charges etc as directed by departmental officers.	MT			
13		Brick work in following Cement Mortar 1:5 (one part of cement and five part of sand) using best quality II class table moulded bricks 9"x4-3/8"x2-3/4" for foundation and basement including curing etc., complete complying with standard specification. including scaffolding curing cost of reinforcement etc., all complete as per specifications and drawings as directed by the Engineer in-charge.				

Contractor**Correction:
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a	61.40	Foundation basement	cu.m			
b	154.10	Ground floor	cu.m			
d	25.10	Terrace Floor	cu.m			
14		Brick partition walls of 11.50cm thickness using best quality II class table moulded bricks 9"x4-3/8"x2-3/4" in Cement Mortar 1:3 (One Cement and Three Sand) using hoop iron reinforcement if found necessary including curing etc., complete and as directed by the departmental officers. (Hoop iron reinforcement will be measured and paid for separately).				
a	119.00	Ground Floor	Sq.m			
15	796.00	Providing and applying 10 mm thick Cement plaster in Cement mortar 1:3 (One part of Cement and Three parts of Sand), for finishing the exposed surfaces of R.C.C. items of works such as Roof (or) floor slabs, beams, and Sun shades etc.to correct plane and level including scaffolding, hacking of surface, chiselling the undulated surface wherever necessary and curing etc., all materials and labour complete in all respects including all lead, lift and descent and as directed by the Engineer in charge. This rate includes the cost of providing Cement Mortar	sq.m			

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		beadings for sun shades, steps, landing slabs, elevation etc. complete complying with standard specifications.				
16	2257.00	Providing & applying 12 mm thick cement plaster in CM 1:5 (1 part of cement: 5 parts of sand) to walls internally in single coat at all levels to correct line and level including chicken wire mesh at all joints of brick and concrete surfaces with minimum overlap of 150 mm in all directions, scaffolding, rounding off or hampering of corners, offsets, fin/ bands, projections, etc. and cleaning of surface, raking out joints, roughening of surface, chiselling the undulated surface wherever necessary and curing, etc., all materials and labour complete in all respects including all lead, lift and descent and as directed.	sq.m			
17	245.00	Stucco plastering 12mm thick using blue granite chips of size 10mm and below over the existing base plastering with cement mortar 1:5, 12mm thick, etc., complete complying with standard specifications .	sq.m			
18	524.00	Paving the floor with best quality Verified Tiles of size 600 x 600 x 8mm of approved colour, shade and quality laid in cement mortar 1:3 (one cement and three sand) 20mm thick in all floors and the top pointed with the white cement mixed same colour pigments etc., complete complying with standard specification.(The make and brand of the tiles should be got approved by Executive Engineer before use on works)	sq.m			
19	111.00	Flooring with colour designed ceramic tiles of size 305 x 305 x 6 mm laid over 20 mm thick cement mortar 1:3 (One Cement and Three Sand) base mortar over the existing slab / floor including cutting the tiles to the required size with special cutter wherever necessary, laying in position and pointing with white cement mixed with colouring	sq.m			

Contractor

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		pigment at the rate of 0.3 Kg. / sq.m. etc., complete complying with standard specification. (The make and brand of the tiles should be got approved by Executive Engineer before use on works)				
20	285.00	Dadoing the walls with coloured glazed tiles approved size, quality and colour set in CM 1:2 - 10mm thick . And pointed with suitable cement including finishing the joint and pointing flesh with walls and tile surface in all floors at the rate of 0.40 Kg /Sqm etc. complete.	sq.m			
21	48.00	Providing and laying 18mm tk. fine polished granite for steps & Landing of approved size and pattern in CM 1:3 , including nosing where ever necessary as per drawings and confiscations and as directed by the Engineer in charge.	Sq.m			
22	37.00	Supplying and fixing of polished granite slab ,18/20 mm thick, for flooring including fixing in position cutting, chipping the wall, masonry touch up works etc., complete in all respects for all floors as directed by the departmental officers.	sq.m			
23	5.00	Supplying and fixing of Fine Double side polished granite slab of 18/20 mm thick, for ,urinal including fixing in position cutting ,chipping the wall, masonry touch up works etc., complete in all respects for all floors as directed by the departmental officers.	sq.m			
24	15.00	Paving the floor with pre-polished concrete anti-skid step tiles (Required shape and design) of 20mm thick of approved quality and colour laid in Cement Mortar 1:3 (One Cement and Three sand) 20mm thick and pointed with white cement mixed with colouring pigment at the rate of 0.40 Kg. / sq.m., curing, etc., complete complying with standard specification and as directed by the departmental officers. (The make and brand of the tiles	sq.m			

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		should be got approved by Executive Engineer before use on works).				
25	3908.00	Providing, fabricating and fixing M.S. grills Windows, and ventilator, gates, ladders, rail pipes, nosing angles, with M.S.lugs in staircase steps etc., made out of M.S rods, flats, angles, pipes, channels etc. including necessary fixtures complete as per drawings and specifications and as directed by the Engineer.	KG			
26	24.80	S.S Hand rail: Manufacturing, supplying and fixing of stainless steel hand rails for staircase using 50mm dia 304L grade stainless steel pipe of 1.6 mm thick at required locations to a height of 900mm from finished floor level welded to 38mm dia stainless steel pipe post of 1mm thick as vertical at 900mm centre with 2 Nos of 25mm dia intermediate horizontal stainless steel pipe of 1.6mm thick in between. The vertical pipe has to be welded to the 100 x 100 x 6mm MS base plate encased in the base concrete. The rate is inclusive of the charges for cutting, bending, welding, grinding, polishing, conveyance, electrical charges, etc., complete.	Sq.m			
27	40.30	UPVC Window supplying and fixing UPVC (Un-PLASTICIZED Polyvinyl chloride) windows of casement type (open) from the profile the size of outer frame 60mmx58mm and shutter profile are reinforcement with gi/1mm 125GSM and 100% corrosion free, the profiles are multi chambered cv section with wall thick of 2mm. The EPDM rubber (black colour) covered with over all the edges of frame and shutter the shutter will be provided with Esper multi power points locks and also it operates as handle. The corners and joints should be welded and cleaned. Radiations free pin headed or plain glass 4mm thick should be provided to the shutter and it should not	sq.m			

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		allow leakage of water even at most ranging storms and should have key lockable action, security protective hinges, strong locking systems and as per size for arresting noise and energy loss.				
28	10.10	UPVC VENTILATOR: Supplying and fixing UPVC (Un-PLASTICIZED Polyvinyl chloride) Louvered Ventilators of from the profile the size of outer frame 60x58mm and shutter profile the size of 60x78mm both profile size of 60x78mm both profiles are reinforced with GI/1MM 125GSM and 100% corrosion free , the profile are multi chambered sections with wall thick of 2mm. The EPDM rubber (black colour) covered with all over he edges of frame and shutter . The corners and joints should be welded and cleaned. Radiation pin headed glass 4mm thick should be fixed to the wall with 100% packing with screws and silicon packing all around the frame. The ventilator should be got approved from the Executive Engineer before use on work.	sq.m			
29	23.70	Solid PVC door shutters Toilet door using 19 Gauge 19mm MS square tubes for styles and outer frames. 15mm MS square tubes for top, lock and bottom rails. The steel tubes shall be covered with 5mm thick solid PVC sheets. Shutter using 5mm thick solid PVC sheets for panelling shall rigidly fixed in position including necessary furniture and fittings. The overall size of styles shall be 50mm x 30mm. The overall size of top rail, Lock rail and bottom rail shall be 75mm x 30mm. The overall size of frames shall be 50mm x 45mm, with suitable rebate for housing the shutter.	sq.m			
30		Door Frame: Supplying and fixing first quality teak wood frames for doors, windows, ventilators and other similar joinery works with the following sizes and sections				

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		including labour charges for wrought and put up in position and also for fixing hold fast in frames and masonry etc. complete in all floors.				
a	0.14	Teak wood Scantlings up to 2M	Cu.m			
b	0.44	Teak wood Scantlings over 2M and below 3M	Cu.m			
31		Supply & Fixing of 40mm thick First class Teak wood Panel Door shutter of approved design with all necessary adhesives and CP screws complying with standard specification. The cost is inclusive of 1 no mortise lock, handle, tower bolt , approved equivalent make SS bearing hinges of equivalent make of approved make, 2 no floor mounted SS door stopper etc., complete.				
a	11.60	Double Leaf Door Shutter	sq.m			
b	19.75	Single Leaf Door Shutter	sq.m			
32	73.00	Painting two coats of synthetic Enamel paint of approved colour and make over one coat of anti-corrosive Zinchromite primer steel work, suitably prepared for receiving the paint by surface scraping, rubbing applying filler etc. including cost of filler, primer, paint all complete as per drawings and specifications.	sq.m			
33	81.00	Painting two coats of synthetic Enamel paint of approved colour and make over one coat of anti corrosive Zinchromite primer over new wood, suitably prepared for	sq.m			

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		receiving the paint by surface scraping, rubbing applying filler etc. including cost of filler, primer, paint all complete as per drawings and specifications.				
34	796.00	Providing and applying Emulsion paint finish of approved make & shade in two or more coats over a coat of approved primer to give an even shade as per manufacturer's instruction to the ceiling plastered surfaces and internal ceiling plastered surfaces including preparation of surfaces, scaffolding etc. all complete as per drawings and specification for all heights.	sq.m			
35	1290.00	Providing and applying Emulsion paint finish of approved make & shade in two coats over a coat of approved primer and 2 coats of putty to give an even shade as per manufacturer's instruction to the internal plastered surfaces including preparation of surfaces, scaffolding etc. all complete as per drawings and specification for all heights.	sq.m			
36	205.00	Supplying and preparing surfaces plaster walls RCC Surfaces and applying approved quality of Texture external plastered surfaces and over two coat emulsion and one coat primer to all levels including preparation of surfaces, scaffolding etc. all complete as per drawings and specification for all heights.	sq.m			
37	477.00	Supplying and painting the walls with one coat of wall primer and two coats of Exterior emulsion (apex or equivalent) as instructed by the departmental officers including preparation of surface curing, etc., complete in all floors complying with standard specifications (The colour and shade of the cement paint shall be got approved by the Executive Engineer before use of work).	sq.m			

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38	63.20	Weathering Course Concrete using best quality broken brick jelly of 20 mm uniform gauge in pure slaked lime (NO Sand to be used (over the RCC roof slab in the proportion of brick jelly to lime being 32 : 121/2 by volume laid over in single layer and consolidated to the required slope and finished thickness and beating the concrete with wooden beaters of approved pattern, keeping the surface constantly wet by sprinkling lime, jaggery water etc. complete complying with standard specifications and as directed	cu.m			
39	648.00	Finishing the top of roof with one course of machine pressed tiles of size 230mm x 230mm x 20mm of approved quality set in Cement Mortar 1:3 (One Cement and Three Sand) 12mm thick mixed with water proofing compound conforming to ISS at 2% by weight of cement used and the joints pointed neatly to full depth of tiles with the same cement mortar mixed with red oxide and water proofing compound including curing etc., complete complying with standard specification and as directed by the departmental officers.	sq.m			
40	8.10	Supplying and placing of Ready Mix M25 grade - 360 KG/CUM minimum cement content of with OPC 53 Grade of Concrete confirming to IS 456/2000 for Reinforcement Cement Concrete Structural elements under controlled water cement ratio using 20mm and downgraded machine broken granite stone jelly including transportation and pumping excluding cost of centring and shuttering and reinforcement but including curing, finishing etc as directed by departmental officers	cu.m			
41	38.00	Providing, supply, mixing laying cement plastering 20mm thick with cement mortar 1:4 mixed with water proofing compound Conplast X421IC conforming to IS:2645, @	sq.m			

Contractor

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		150ml per bag of cement (normal setting integral water proofing compound) as specified by the manufacturer over PCC levelling course including preparation of surface, dewatering, finishing, curing etc. all complete as per manufacture's Specification and direction etc.,				
42	1.00	Supplying and fixing in position C.I. Manhole covers (heavy duty) of various sizes of best approved quality and as per standard specifications etc., complete.0.6X0.6M Size etc., complete.	Nos			
43	8.00	PVC mould CI steps for sump	Nos			
44	7.00	Providing, machine mixing and laying on the P.C.C/ R.C.C. surface in approved panels of 25 mm thick granolithic flooring in cement concrete mix of 1:2:4 (1 Cement: 2 Sand: 4 Aggregate 10 to 12 mm thick) well vibrated, compacted including 45 X 3 mm glass dividing strip, fixed to correct level and finished smooth and cured by keeping surfaces well-covered and protected against excess of an type. (The contractor to provide for preparation of surface by cleaning, hacking and exposing aggregate to achieve the best bond and any curling, lifting or bey bonding noticed shall be rectified by the contractor at his cost).	sq.m			
45	1700.00	Providing and laying Prime Coat over WBM/ WMM surface using 7 Kg of Emulsion Bitumen (SS1) per 10 sqm for preparatory to another bituminous construction over it, including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 502 of MORTH Rev-5	sq.m			
46	81.30	Providing, laying 50mm consolidated thick Bituminous Macadam using 0.20cum of 26.50-13.20mm, 0.43cum of	Cu.m			

Contractor

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		13.20-2.36mm and 0.08cum of 2.36mm & below size IRC metal with 37 Kgs of VG30 Grade bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen, aggregate and mixing them in required temperature using Central hot mix plant 20-30ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of 50mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory Roller to the required density etc., including labour for attending to paver to site etc., including hire and fuel charges for 20-30t CMP with bitumen boiler, tipper trucks, Paver Finisher, Vibratory roller and all other tools and plant required, including all other incidental charges etc., complete as per specification using CMP as per clause 504 of MORTH Rev-5				
47	1785.00	Providing and laying Tack Coat over Existing BT surface using 2 Kg of Bitumen Emulsion (RS1) per 10 sqm for preparatory to another bituminous construction over it including cost of material, labour charges, rentals for machinery, fuel and all other incidental charges etc., complete as per Clause 503 of MORTH Rev-5	sq.m			
48	65.00	Providing and laying Bituminous Concrete to 30/40mm thick using 0.13 cum of 19.00-9.50mm, 0.17 cum of 9.50-2.36mm and 0.26 cum of 2.36 and below with 50.30kgs of VG30 bitumen for premixing per 10sqm including cost and conveyance of all materials to CMP site, heating the bitumen and aggregate to required temperature and mixing them in required temperature in central hot mix plant 20-30 ton capacity, conveying the mix by tipper trucks to paver site, spreading the mix to uniform thickness of	Cu.m			

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		40mm with mechanical paver to the specified grades and cross sections and consolidated by 8-10 tonne Vibratory to the required density etc., including labour for attending to paver to site etc., including hire charges and fuel charges for 20-30 t CMP with bitumen boiler, tipper trucks, Paver Finisher, Vibratory roller and all other tools and plant required, including fuel and all other incidental charges etc., complete as per specification using CMP as per clause 507 of MORTH Rev-5				
49	3158.00	Providing and laying, spreading and compacting graded stone aggregate to Wet mix macadam (WMM) specification including premixing the material with water at OMC in mechanical mix plant carriage to mixed material by tipper to site laying in uniform layers with paver in sub base / base course on well prepared surface and compacting with vibratory roller to achieve the desired density complete as per clause 406 of MORTH specifications.	Cu.m			
50	6988.00	Supplying and laying of 400 microns HDPE black colour sheet in below RCC etc., complete as directed by departmental officers.	Sq.m			
51	5913.00	Finishing the RCC road with power trowel, broom finish etc. complete as directed by the departmental officer.	Sq.m			
52	1479.00	Making and cutting grooves in RCC pavement using saw cut machine and filling the bitumen etc., complete as directed by departmental officers.	Rmt			
53	1420.00	Providing weepholes in brick masonry / stone masonry, plain / reinforced cement abutment, wing wall, return wall with 100mm PVC pipe extending through the full width of	Nos			

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		the structures with slope of 1(V):20(H) towards drawing face complete as per drawing.				
54	51.60	Providing and laying of 900mm dia heavy duty NP3 RCC Hume pipe as per Indian standards with collar joints and stilt mixture CM 1:2 etc., complete	Rmt			
55	3870.00	Painting two coats of newly plastered wall surface with ready mixed plastic emulsion paint of first-class quality and of approved colour over a priming coat including thorough scrapping, clean removal of dirt, and including necessary plaster of Paris putty, wherever required etc., complete complying with standard specification.	Sqm			
56	2150.00	Supplying and laying of Interlocking Paver Block Stone 60mm thk. Over a base layer of sand filling incl. Cost of materials laying and Labour charges etc.,	Sqm			
57	57.00	Supply and Fixing of English Brass Letters 37cm (15") complete complying with standard specification and as directed by the departmental officers.	Nos			
58	46.00	Supply and Fixing of Tamil Brass Letters 25cm complete complying with standard specification and as directed by the departmental officers.	Nos			
59	2.00	Supply and Fixing of TNJFU Approved logo 60cm dia complete complying with standard specification and as directed by the departmental officers.	Nos			
		PLUMBING				
60	7.00	Supplying and fixing in position Indian Water Closet (Oriya type) of size 580 x 440mm white glazed earthen ware of approved quality and brand with "P" or "S" trap conforming to BIS with crushed stone sand cushion and forming flooring all-round the closet using 40mm broken brick jelly in lime concrete 1:2:5 (One lime, Two crushed stone sand and Five brick jelly) 100mm thick and finishing	each			

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		the top to the required slope and including giving necessary connection to CI soil pipes (including the cost of 100mm dia CI pipe for a length of 600mm) by dismantling brick masonry wall / reinforced cement concrete roof / floor slab and making good the dismantled portion to the original condition with leakages etc., complete complying with standard specifications and as directed by the departmental officers. (The water closet should be got approved by the Executive Engineer before use on works).				
61	3.00	Supplying and fixing in position white glazed European Water Closet of best quality and approved make with 100 mm "P" or "S" trap connecting with CI pipe of 100mm dia / PVC pipe of 110mm dia, double flapped rigid PVC black seat and seat cover with CP brass hinges including cost of white cement, cement for packing, spun yarn, teak wood plugs, brass screws, etc., including supplying and fixing 10 litres capacity PVC low level flushing tank with a pair of CI brackets, etc., complete with all fittings such as 15mm brass ball valve with polythene float with brass handle, union, coupling connected by means of 40mm white PVC flush hand using Indian adopter joint including all internal fittings.....	Each			
62	3.00	Supply & fixing of two in one CP Health Faucet of the closet mounting type with hose connected two way BIB COCK complete fittings. (Make: Parryware or equivalent)	Each			
		Long Body Bibcock				
63	16.00	Supplying & fixing of Long body bibcock with brackets including fixing over Wall tile dado complete.(Make: Parryware or equivalent)	Each			

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		Flat Back Urinal				
64	7.00	Supply and fixing in position of best Indian make white glazed earthen ware lipped mouth flat back urinal of best quality and approved make of size 430mm x 260mm x 350mm with GI pipe, 32mm dia bell mouth PVC connection and waste pipe, 15mm dia GI pipe of required length, 15mm dia GM wheel valve, 15mm dia brass nipple 2 Nos., and fixing the urinals in position with necessary TW plugs, clamps, screws, etc., including dismantling masonry and re-doing the same to the original condition, etc., including painting the pipe with two coats of best quality approved synthetic enamel paint over one coat of red oxide primer and checked without any leakage etc. complete complying with standard specifications and as directed by the departmental officers. (The urinal should be got approved by the Executive Engineer before use on works.) White glazed earthen were lipped mouth flat back urinal	Each			
65	17.00	Supplying and fixing in position best quality and approved make Indian made white glazed earthen ware wash hand basin of size 550 x 400mm (without pedestal) with a pair of cast iron brackets, including cost 15mm dia brass CP pillar tap, 32mm dia "B" class GI waste pipe with rubber plug and chain, 15mm dia GM wheel valve, 15mm brass nipple, 15mm dia nylon connection, 32mm dia CP brass waste coupling including fixing of wash basin using CI brackets on to the wall in position with TW plugs and screws, rubber washers, white lead and giving necessary water supply connection and painting the brackets with two coat of painting over a priming coat of anti-corrosive	Each			

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		paint including testing for leakages etc., complete complying with standard specification and as directed by the departmental officers. (The wash hand basin and specials should be got approved by the Executive Engineer before use on works).				
66	14.00	Supplying & fixing of Angle valve stopcock with connecting hose and wall flange. (Make: Parryware or equivalent)	Each			
67	14.00	Supplying and fixing in position Indian make bevelled edge mirror of approved quality and brand PVC / Fibre Glass framed 600 x 450 x 5.5mm thick mirror, shelf type with hard board backing of approved colour fixed with brass screws, rawl plug, etc., complete complying with standard specification. (The mirror should be got approved by the Executive Engineer before use on works)	Each			
68		Supplying and fixing in position best quality PVC soil / waste pipes of various dia having 6 kg / sq.cm. pressure BIS mark and providing leak proof joints using PVC adhesives including fixing to the wall with special PVC / MS clamp, teak wood plugs, brass screws, etc., and making connection to all sanitary fittings, dismantling masonry / RCC works wherever found necessary and making the good dismantled portion to the original condition, including testing for any leakages, etc., complete complying with standard specifications. (The PVC pipes should be got approved by the Executive Engineer before use on works). The rate for earth work excavation will be measured and paid separately in the cases where the pipe lines are proposed to laid below ground level				

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a	22.00	50mm dia PVC soil / waste pipe	Rmt			
b	30.00	75mm dia PVC soil / waste pipe	Rmt			
c	30.00	110mm dia PVC soil / waste pipe	Rmt			
69		Supplying and fixing position CI Nahani Trap / Floor Trap of the following sizes with best stainless steel gratings of approved brand and quality, fixed over a bed of brick jelly lime concrete 1:2:5 (One part of lime, two part of crushed stone sand and five part of 40mm gauge brick jelly) and finished with Cement Mortar 1:3 (One Cement, Three sand) including dismantling masonry works wherever found necessary and making good the dismantled portions to the original condition and giving connection to the CI / PVC pipes, etc., complete complying with standard specification. (The Nahani Trap should be got approved by the Executive Engineer before use on works)				
a	4.00	Nahani Trap of size 100 x 75mm with stainless steel gratings	Each			
b	2.00	Nahani Trap of size 100 x 100mm with stainless steel gratings	Each			
70		Supplying and fixing in position best approved of BIS quality PVC rain water down fall pipes having a pressure of 4 kg. / sq.cm including cost of necessary PVC shoe, PVC bend, cast iron gratings of required diameter and special clamps, brass screws, nails, etc., and fixing of cast iron gratings at junction of parapet and the RCC roof slab including finishing neatly etc., complete. The rate shall be inclusive of cast of removable cast iron grating. The PVC				

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		pipe shall be fixed in wall with special type of "U" clamp at the centre of the pipe line in addition to those for more than 3.0 metre pipe length, etc., complete complying with standard specification.				
a	35.00	160 mm dia (In building with Two floor only)	Rmt			
b	18.00	110 mm dia (In building with Two floor only)	Rmt			
71		Supplying and fixing in position PVC cowls of following dia of best approved quality conforming to BIS, etc., complete complying with standard specifications. (The PVC cowl should be got approved by the Executive Engineer before use on works).				
a	2.00	110mm dia	Nos			
b	2.00	75mm dia	Nos			
72		Supplying and fixing in position best quality PVC soil / waste pipes of various dia having 6 kg / sq.cm. pressure BIS mark and providing leak proof joints using PVC adhesives including fixing to the wall with special PVC / MS clamp, teak wood plugs, brass screws, etc., and making connection to all sanitary fittings, dismantling masonry / RCC works wherever found necessary and making the good dismantled portion to the original condition, including testing for any leakages, etc., complete complying with standard specifications. (The PVC pipes should be got approved by the Executive Engineer before use on works). The rate for earth work excavation will be measured and paid separately in the				

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		cases where the pipe lines are proposed to laid below ground level				
a	11.00	160mm dia. 6kg class III-pipes.	Rmt			
b	104.00	110mm dia. 6kg class III-pipes.	Rmt			
73	7.00	Supplying and fixing in position 150 x 100mm "P" or "S" stoneware gully trap 'A' grade with CI double gratings of size 150 x 150mm and 230 x 230mm at bottom and top respectively with necessary earth work excavation laid over a bed of brick jelly cement concrete 1:3:6 (One cement, Three crushed stone sand and Six broken brick jelly) 150mm thick using 40mm size broken brick jelly including necessary brick work and plastering including dismantling masonry wherever necessary and re-doing the damaged portions to the original conditions using cement concrete 1:3:6 using 20mm stone jelly for fixing the gully trap and giving connections to stoneware sewer line etc., complete complying with standard specifications. [Earth work excavation, brick work, plastering shall be measured and paid separately]. The stoneware gully trap should be got approved by the Executive Engineer before use on works.	Each			
74	8.00	Supplying and Erection and construction of sewer chambers of required internal dimensions 600x600 upto 0.6 mtr. depth with 230mm brick masonry in C.M.1:5 thk of masonry over bed of 1:2:4 R.C.C. 200 mm thk above 100 mm thk P.C.C.1:3:6 Cement concrete foundations over sand bed of 100mm thk channelling in 1:2:4 cement concrete, plastering in 1:3 cement mortar for internal and	Each			

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		external surface finished with floating coat of neat cement, the work including excavation for required depth of gully trap and refilling and making good in the surface with SFRC cover and frame 600x600mm (clear opening)complete complying with standard specifications etc.,				
75	6.00	Construction of rain water recharge well of 1200mm dia and depth upto 1500mm, in addition 110 dia special blue slotted pipe for bore well. pipe should be laid from bottom of ring well centre to below 1500mm as shown in the drawings, including all types of excavation, occur for pipe, filling of rain water harvesting materials with construction of R.C.C. ring and top 100mm RCC SLAB WITH 450X450mm perforated SFRC manhole and 230mm brick wall in 2'height with below 300mm lengthx100mm thk P.C.C. as per the structural filling the filter media as per drawing.	Each			
		Internal Water Supply Arrangements using UPVC pipes and UPVC specials				
76		Supplying, laying and jointing UPVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing UPVC specials using UPVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, PVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges, etc., complete complying				

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		with standard specifications. The PVC pipes shall be got approved by Executive Engineer before use on works.				
a	16.00	20 mm nominal (OD) pipes	M			
b	18.00	25 mm nominal (OD) pipes	M			
c	28.00	32 mm nominal (OD) pipes	M			
		External Water Supply Arrangements using UPVC pipes and UPVC specials				
77		Supplying, laying and jointing UPVC pipes (having working pressure 10 kg. / sq.cm) of approved quality and best variety conforming to BIS of the following dia including cutting, threading and fixing UPVC specials using UPVC adhesives (but excluding cost of such specials) and fixing into wall with teak wood plugs, PVC clamps and screws making holes on the wall (or) drilling holes in the roof and making good the dismantled portion to original condition with necessary brick work / cement concrete and plastering neatly wherever necessary with necessary scaffolding charges upto 4 metre height above ground level, etc., complete complying with standard specifications. The PVC pipes shall be got approved by Executive Engineer before use on works.				
a	80.00	25mm nominal(OD) pipes	M			
b	14.00	32mm nominal(OD) pipes	M			

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c	60.00	40mm nominal(OD) pipes	M			
d	36.00	50mm nominal(OD) pipes	M			
78		Supplying and fixing in position first quality and approved variety of Gun metal Gate Valve with BIS make of the following dia including cost of shellac, thread balls, etc., complete complying with standard specifications (for both internal and external water supply arrangements). The valves to be used on work shall be got approved by the Executive Engineer before use on work.				
a	2.00	50 mm nominal bore	Each			
b	4.00	40 mm nominal bore	Each			
c	6.00	32 mm nominal bore	Each			
d	4.00	25 mm nominal bore	Each			
79		Supplying and fixing in position first quality and approved variety of Gun metal NRV with BIS make of the following dia including cost of shellac, thread balls, etc., complete complying with standard specifications (for both internal and external water supply arrangements). The valves to be used on work shall be got approved by the Executive Engineer before use on work.				
a	2.00	25 mm nominal bore	Each			

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80		DSR-18.6 / DSR-18.60.1 Providing and fixing enclosed type water meter (bulk type) conforming to IS: 2373 and tested by municipal board complete with bolts, nuts, and rubber insertions etc. (the tail pieces if required will be paid separately) screw type and flange type :80 mm dia nominal bore				
a	1.00	32 mm nominal bore	Each			
81	1.00	Water transfer pump	Each			
82	1.00	Tanker stand post	Each			
		ELECTRICAL				
83	100.00	Supply and fixing of 3.5 X 50 Sqmm PVC armoured LT UG cable in a trench to be excavated at a depth of 0.75metre putting 0.15 mt. Layer of sand and covering the cable completely with bricks and sand and refilling the earth to make good.	mtr			
84	2.00	Supply and fixing of brass cable gland for 3 1/2 X 50 Sqmm PVC armoured LT UG cable with earth connection.	each			
85	2.00	Supply and providing cable end termination of 3 1/2 X 50 Sqmm PVC LTUG Aluminium armoured cable with necessary Aluminium cable sockets by crimping etc, with electrical connection complete.	each			

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86	2.00	Earthing as per the ISI specification with an earth electrode of 2.1 mtr class 'B' GI pipe of dia not less than 40mm, with copper earth plate of size 125mm x 50mm x 6mm with necessary funnelling arrangements with necessary masonry work and with 38mm RCC cover slab for the brick masonry	each			
87	25.00	Supply and run of 1 of No.8 SWG G.I wire for guarding with Gradle with No.8 SWG G.I wire at the equal interval of 1.5 Metre.	mtr			
88	1.00	Supply and fixing of vertical type 4 way triple pole and neutral MCB sheet steel enclosure with bus and neutral link and earth link and with 1 no. 63A/100 A 4 pole isolator MCB type as incoming and 4 nos. 32 TP MCB as outgoing with busbar and double door arrangements in flush with wall/ on surface and making good of the concealed portion with earth connection.	each			
89	1.00	Supply and fixing of triple pole and neutral 8 way MCB distribution board complete with the following and necessary neutral link, earth connector link etc. with bus bar and double door arrangements on surface / in flush with wall and making good of the concealed portion with earth connection Incoming: 1 No. 63A 10KA 4 pole MCB -1 NO. 3 nos of 63A/100mA DP RCCB Outgoing: 24 Nos. 6/10A 10KA SP MCB FOR LDB CUM PDB FOR GROUND FLOOR	each			
90	30.00	Supply and run of 4 of 10(140/0.3) Sqmm & 2 of 2.5(36/0.3) PVC insulated SC Multistrand copper cable of 1100V grade in suitable PVC rigid pipe concealed in Wall and ceiling with continuous earth wire and making	mtr			

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		good of the concealed portion with suitable colour LIGHTING DB				
91	30.00	Supply and run of 4 of 6(84/0.3) Sqmm & 2 of 2.5 (36/0.3) PVC insulated SC Multistrand copper cable of 1100V grade in suitable PVC rigid pipe concealed in Wall and ceiling with continuous earth wire and making good of the concealed portion with suitable colour LIGHTING CUM POWER DB	mtr			
92	270.00	Supply Wiring, run Connecting, Testing & Commissioning of 2 of 4 sq.mm PVC Insulated SC Unsheathed CU.Conductor of 1100V Grade in Suitable PVC Rigid Pipe Concealed in Wall and Ceiling With Continuous Earth Wire Connection of 2.5 Sq.mm PVC insulated Sc CU.Conductor and making Good of the Concealed Portions With Suitable Colour. (Raw power 6 / 16Amps Socket & Split Ac unit Point Wiring). (Raw power 6 / 16Amps Socket & Split Ac unit Point Wiring 1.5/1.0TR UNIT.)	mtr			
93	540.00	Supply and Run of 3 of 2.5(36/0.3) sq.mm PVC Insulated SC Unsheathed CU. Conductor of 1100V Grade in Suitable PVC Rigid Pipe On Wall and Ceiling With Continuous Earth Wire Connection Wire With Painting For Suitable Colour. (Light Point Mains Wiring, Raw power 6 / 16Amps Socket Wiring WORK STATION POINT WIRING.)	mtr			
94	80.00	Wiring, Connecting, Testing & Commissioning with 3 X 1.5sqmm PVC insulated single core unsheathed copper conductor cable of 1100 V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories, including supply and fixing of modular 6A one way switch along with moulded front plate in G.I anodised	point			

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		manufacturer's mounting box fixed flush with the wall complete with all accessories as required for Light Points.(Length of the points will be 5 to 8 mts.) -LIGHT POINT				
95	2.00	Wiring, Connecting, Testing & Commissioning with 3 X 1.5sqmm PVC insulated single core unsheathed copper conductor cable of 1100 V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories, including supply and fixing of 2 Nos. modular 6A two-way switch along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required as per the site condition.	point			
96	30.00	Wiring, Connecting, Testing & Commissioning with 3 X 1.5sqmm PVC insulated single core unsheathed copper conductor cable of 1100 V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories, including supply and fixing of modular 6A one way switch, one step type fan regulator along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required for Fan Points.(Length of the points will be 5 to 8 mts.)	point			
97	20.00	Wiring, Connecting, Testing & Commissioning with 3 X 1.5sqmm PVC insulated single core unsheathed copper conductor cable of 1100 V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories, including supply and fixing of modular 6aAmps Switch & 5 Pin socket. Push along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with	point			

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		the wall complete with all accessories as required for Light Points. (Length of the points will be 5 to 8 mts.)				
98	1.00	Wiring, Connecting, Testing & Commissioning with 3 X 1.5sqmm PVC insulated single core unsheathed copper conductor cable of 1100 V grade in suitable PVC rigid pipe concealed in wall and ceiling with PVC accessories, including supply and fixing of modular type bell push along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required for Light Points. (Length of the points will be 5 to 8 mts.) -BELL PUSH	point			
99	20.00	Supply and fixing of 6Amps 3 pin and 2 pin combined modular type switch concealed in manufacturer's GI mounting box in flush with wall..	each			
100	10.00	Supply and fixing of 3x6Amps 3pin and 2 pin combined modular type switch and Socket concealed in manufacturer's GI mounting box in flush with wall earth connection. (for Computer Plug Socket)	each			
101	5.00	Supply and fixing of 5A / 15A 3pin combined flush type wall socket with 15A flush type switch concealed in suitable MS box in flush with wall with painting .	each			
102	4.00	Supply and fixing of 25A 3 pin and 2 pin combined flush type wall socket with 25A DP MCB FOR AC UNIT in switch along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required as per the site condition.	each			

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103	4.00	Supply and fixing of flush type of 25A DP modular type switch with Indicator concealed in switch with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required as per the site condition.	each			
104	2.00	Supply and fixing of 20A 3 pin and 2 pin combined flush type wall socket with 25A switch FOR geyser UNIT in switch along with moulded front plate in G.I anodised manufacturer's mounting box fixed flush with the wall complete with all accessories as required as per the site condition.	each			
105	2.00	Supply and fixing of modular type RJ-6 Television socket housed in GI box to be concealed on wall	each			
106	2.00	Supply and fixing of modular type RJ-11 telephone socket housed in GI box to be concealed on wall	each			
107	2.00	Supply and fixing of modular type RJ-45 Data socket housed in GI box to be concealed on wall	each			
108	3.00	Supply and fixing of modular type Night lamp In GI box to be concealed on wall	each			
109	100.00	Supply, laying testing and commissioning of CATE -6 pair PVC insulated with rigid PVC conduit Pipe open / concealed type and with all necessities.	mtr			

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110		Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
a	50.00	20mmdia	mtr			
b	50.00	25mmdia	mtr			
111	80.00	Supply and fixing 4 feet 18W LED Tube Light For T8 Fitting (Double Side) with TW round Blocks on wall or ceiling with flu tube with PVC unsheathed copper leads from terminal to the fitting. (Philips/Crompton/wipro/elenserve)	each			
112	10.00	Supply & Fixing of LED mirror light - 9 W warm white 2700K - 3000 K - , Led efficacy - > 100 lumes/watt with inbuilt driver input voltage range 145-265 V AC PF > 0.9 , base body extruded aluminium with polychrome milky diffuser (ELMR09) @ Mirror (Make : Philips/Crompton/wipro/elenserve)	each			
113	8.00	Supply and fixing of 30w Led Street light fitting with 19mmdia GI pipe (class B) with 1 no of 19mm dia GI bend completed on existing post & wall with on MS plate with PVC unsheathed cu leads with clamp and aluminium painting with led lamp. (Make: Philips/Crompton/wipro/elenserve)	each			
114	28.00	Supply and fixing of 1400 mm (52") High speed AC ceiling fan and 300mm down rod on the existing clamp .	each			

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115	8.00	Supply and fixing of 300mm sweep Wall Mounted Fan Circulator complete and including fan clamp with Necessary required Job etc.,	each			
116	5.00	Supply and fixing of 300mm (12") sweep (Light duty) AC Exhaust fan complete without provision of hole in the wall.- SD115	each			
117	2.00	Supply and fixing of 63 Amps triple pole MCB incomer, outgoing 32A DP MCB 4 Nos in an M.S Box Double door enclosure for street light control.	No			
118	750.00	Supply and laying 4C X 16 sq.mm LTUG Aluminium cable (ISI only) in a trench to be excavated at depth of 0.75Mt. putting 0.15 Mt. layer of sand and covering the cable completely with bricks and sand and refilling the earth to make goo (Cable Make : ISI quality only)	Rmt			
119	28.00	Supply and fixing of 7.50meter length single bracket pole with base plate (250 x 250 x 6mm) 114.30 mm OD x 5.40mm thick x 4000mm length, 88.90mm OD x 4.85mm thick x 1500mm length, 76.10 mm OD x 3.25mm thick x 1500mm length (Pg no .149 item no XV 1.h)	No			
120	28.00	Supply and fixing of 80 watts LED fitting on the available post with connections complete. (Make : Philips / Crompton / Wipro) (SR Rates)	No			
121	64.00	Supply and Providing cable gland and end termination of 4x16 sq.mm Pvc LTUG Cable with necessary Alu cable sockets by crimping exit with electrical connection Complete.	No			

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122	50.00	Supply and Erection of Cable Route Indicator with suitable concrete masonry .	No			
123	4.00	Supply of MS pillar box of Size (2.5' x 2' x 1') Made up to 14 SWG Sheet with hinged door with lock and arrangement housing 4 nos of 50 x 6mm Aluminium flats with suitable porcelain / hylem base support completing with 2 angle iron support of 6 feet height with concrete base including 2 nos coil earth connection with No 8 SWG GI wire complete Including Labour Charges.	No			
124	6.00	Earthing as per PWD Standard with earth electrode of 2mtr class 'B' GI Pipe of dia not less than 32mm complete with necessary masonry work.	Each			

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