

AVINASHILINGAM INSTITUTE FOR HOMESCIENCE AND HIGHER EDUCATION FOR WOMEN, COIMBATORE – 641 043

Sealed Tender are invited for the under mentioned work.

Name of the work: Renovation works at Open Terrace of BMIE building in Campus – II of Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore - 641108.

Completion period: 1 month.

Name of the Contractor

Address of the contractor
.....
.....
.....
.....

Tender conditions - 17 Pages
Price Bid - 3 Pages

**AVINASHILINGAM INSTITUTE FOR HOMESCIENCE AND HIGHER
EDUCATION FOR WOMEN,
COIMBATORE – 641043.**

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Completion Period : 1 month

Sealed Tender receiving Authority: THE REGISTRAR,
AVINASHILINGAM INSTITUTE FOR
HOMESCIENCE AND HIGHER EDUCATION FOR
WOMEN, COIMBATORE – 641 043.

EMD Amount : Rs.7, 000/-

Date & Time for Sealed Tenders

Opening : 31.05.2024 at 3:30 p.m

Sealed Tenders are to be submitted in the tender box with cover containing the name of the work.

The undersigned reserves the right to reject the lowest or any of all the quotations or to accept any tender wholly or in part or parts without assigning the reason whatsoever thereof.

REGISTRAR

**AVINASHILINGAM INSTITUTE FOR HOME SCIENCE AND
HIGHER EDUCATION FOR WOMEN, COIMBATORE – 641043.**

GENERAL CONDITIONS

Name of the Work: Renovation works at Open Terrace of BMIE building in Campus – II of Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore – 641043.

1. The Sealed Tenders will be received for the above work by **The Registrar** Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore - 641 043 up to 3:00 pm on 31.05.2024.
2. The Sealed Tenders should be in the prescribed form obtainable from **The Registrar**, Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore - 641043.
3. The Sealed Tenders must be submitted in Separate sealed covers and should be addressed to **The Registrar**, Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore – 641043.
4. In case of the successful Contractor, has to be pay as “Security Deposit” for entire contract period, including defects liability period. The Security Deposit amount is 2% of the contract value. The above security deposit shall be refunded on satisfactory completion of the defects liability period and shall not carry any interest.
5. 5 % of the value of work done will be deducted in each bill of payment as withheld amount. The withheld amount and Security deposit so deducted will be refunded after defects liability period. The defects liability period shall be six months from the date of completion of works.
6. If the contractor fail to rectify the defects during the above period of six months, after getting due notice from **The Registrar** such defects will be rectified by the another contractor and the amount will be adjusted from the With held amount.
7. **The Registrar** reserves the right to reject any or all the Sealed Tenders without assigning any reason thereof.
8. The work should be completed within the stipulated time.
9. The taxes will be deducted as per the Government rules in each and every bill payable to the contractor. (Present rate Income tax – 2%, G.S.T - 2% and Labour welfare fund – 1%).
10. The Contractor should carefully go through the tender schedule and quote their rates for all items.
11. The rates should be filled in **FIGURES and WORDS** neatly taking into account the metric units specified in the quotation. Scribbling, over-writings and erasing should be avoided as far as possible. Each and every Erasing, over writing if any should be initialed.
12. **If any difference in the FIGURES and WORDS of the quoted value in the price bid, the value mentioned in the WORDS will be considered.**
13. **The contractor should quote the G.S.T value in the price bid separately. If not quoted G.S.T value in the price bid, which will be considered as G.S.T value is included in the quoted amount.**

14. **No Mobilization Advance.**
15. The rates should be filled in figures neatly taking into account the metric units specified in the tender. Scribbling, over-writings and erasing should be avoided as far as possible. Each and every Erasing, over writing if any should be initialed.
16. The amount of each items of work should be worked out with proper care.
17. The Contractor submitted without filling up the Sealed Tender forms are liable to be rejected.
18. The entire work covered by the contract shall be maintained at the contractors risk until the contract is fulfilled and the works are taken over by **The Registrar**, Avinashilingam Institute for Home science and Higher Education for Women, Coimbatore – 43.
19. Use the following branded **Cement** - Chettinad, ACC, Coromandel and Ramco, **Steel** – Sail, Vizag and JSW.
20. During the execution if any damage made by the contractors in the existing pipe line, sewage line, telephone cable and electricity cables etc., has to be rectified @ their own cost.
21. The contractor shall be responsible for all injury to person, animals or things, and for all structural and decorative damage to property which may arise from the operation or neglect of himself or of any nominated sub – contractor’s employees, whether such injury or damage arise from carelessness, accident or any other cause whatever in any way connected with the carrying out this contract.
22. The work should be completed within one month.

PART I: TERMS & CONDITIONS OF CONTRACT

1. SCOPE OF CONTRACT

The CONTRACTOR shall perform the contract in accordance with the terms and conditions contained herein to the satisfaction of the Employer and Engineers

The work executed shall conform to the specifications of the work detailed in Part-II hereunder and where no specifications are mentioned, in accordance with the standard specifications.

2. No part of the contract shall assigned or carried out by the contractor through any third party without the written permission of the employer. The contract is not entitled to transfer his interest / obligation/claim under this contract to any third party nor authorise any person to receive any payment n behalf of the contractor through power of attorney or otherwise. In the event of permission being granted by the employer to the contractor to assign any part of the work undertaken by the contractor to any third party such assignee shall be bound by the terms and conditions of the contract and such assignee / sub contractor will be bound by all the terms and conditions mentioned herein and the responsibility of the main contractor to

comply with the terms and conditions of the contract shall subsist notwithstanding any such permission being granted to assign any part of the work.

3. The specifications, details etc., which are issued to the CONTRACTOR from time to time shall be the sole property of the Engineer and they shall not be used for any purpose other than the work covered under this agreement. The Engineer authorised by him may issue further instructions in writing or orally, directions which are required for the of carrying out the work entrusted to the contractor under this contract.
 - I. Variation or modification of the design, quality or quantity of works or the addition or Omission or substitution of any work.
 - II. Any discrepancy in between the bill of estimated quantities and/or specifications.
 - III. Removal from site of any material brought thereon by the CONTRACTOR and substitution of any other material thereof.
 - IV. Removal and/or re-execution of any works executed by the CONTRACTOR.
 - V. Dismissal from the works of any persons employed thereon.
 - VI. Opening up for inspection of any work covered up.
 - VII. Re-doing and rectifying of any defects.

If the contract carries out any work on the basis of any oral instructions of the employer/Engineer, the same shall be confirmed in writing by the contractor prior to the commencement of the work and for this purpose maintain a book containing minutes of such oral instructions and communicate the same to the employer/Engineer and the contractor may proceed with the work in accordance with oral instructions if such confirmations containing the oral instruction are not contradicted

If the CONTRACTOR finds any discrepancy in the specifications, they shall immediately refer the same to the Employer/Engineer who shall decide which shall be followed. Any work done by the CONTRACTOR after discover by him of such discrepancy, error, omission or ambiguity without the Employer/Engineer authorization will be entirely at the CONTRACTOR'S risk and cost.

4. CONTRACTOR'S RESPONSIBILITY: It is the responsibility of the contractor to keep requires man power and materials to carry out execution of work according to the true intent and meaning of the technical specification referred to therein and to seek clarification from the architect if any details are found to be insufficient or inadequate for the purpose of carrying out the work undertaken. Contractor shall provide everything necessary for the proper execution of works according to the true intent and meaning of the drawing and technical specification taken together, whether the same may or may not be shown on the particularly described in the reasonably inferred there from CONTRACTOR shall supply, fix and maintain at his cost during the execution of any work all the necessary centering, scaffolding, staging planking, timbering, strutting, shading, pumping, fencing,

watching, lighting by night as by day and any other temporary construction required for proper execution of the works.

The temporary layout and details of related temporary works shall have the prior approval of Employer/Engineer and the CONTRACTOR shall be responsible for proper strength and safety of the same. If it is necessary to remove any of the temporary works at any time to facilitate execution of the works or the work of other agencies such removal and re-erection shall be carried out by the CONTRACTOR without any delay and at no extra cost to the Employer.

If the CONTRACTOR has to suspend the work temporarily due to the 'Hold' in the relevant specification for non-availability of information and to divert his activities to other areas, as the exigencies of the work may demand, no extra claim on this account will be entertained by the Employer.

5. CLEARING OF DEBRIS : At the end of each spell of work and on full completion of the works, CONTRACTOR shall as part of his contractual obligation and at his own expenses, remove all surplus materials, refuse debris and rubbish of every description from the buildings and land site. All approach tracks and roads shall be cleared free of any obstructions, and damages to the same shall be made good. All drains in the vicinity of the building shall be cleared of any deposits, loose earth or any other discarded materials or rubbish.

CONTRACTOR shall also remove all paints and whitewash stains, rub all floors, paving etc. and shall leave everything clean water tight in perfect condition and deliver the building in good condition, fit for occupation.

If within a fortnight of completion of the particular item of site work, the refuse, debris and rubbish are not cleared, Employer shall be at the liberty to arrange the removal of the same at the cost of the contract. However, Employer shall in such a case send prior intimation in writing to CONTRACTOR expressing such intention.

6. SITE OFFICE: The Contractor shall make their own arrangement to build temporarily site office, stores, fabrication yards etc., within the contract period.

7. Water for construction – The contractor shall make their own arrangement to supply of Water to the construction works.

8. **Electricity supply** will be provided to the contractors at one point by owner with separate meter at **cost of Rs.12/- per unit**. It will be recovered in the every part part bill. However, uninterrupted power supply will not be guaranteed by the company. However, it has been agreed that the employer is not in a position to assure any such interrupted supply of power since it depends on so many external factors.

9. Time & Schedule of Construction work: Time shall be considered as the essence of the contract and the CONTRACTOR hereby confirms that work has, commenced on the date when the site was handed over to him & the work order letter of award of contract was accepted by the CONTRACTOR and agrees to complete the work within the stipulated time as mentioned below. Completion of work would mean completion in all respects and to be made available ready for occupation as per schedule. As the works are to be executed in an expeditious manner, CONTRACTOR shall furnish to Employer/Engineers, once in a fortnight a progress report, in triplicate, indicating the stages of works completed, works in progress and works to be taken up as also the consumption and stock figures relating to the various items of building materials along with further details required from Engineers side.

10. Details of action taken by CONTRACTOR for procuring all materials, required for the works shall also be specified in the progress report.

11. PROGRAMME OF COMPLETION: For the purpose of calculating time, the date of commencement shall be taken as **Work order issue date**

12. Date of completion considered as **One Month from work order issue date** for the above said building

13. **TAXES:** Goods Service tax (GST @ 18%) will be reimbursed at the actual rate from time to time as per Government norms. Any other taxes, duties, octroi, etc., on materials wherever applicable will have to be borne by the CONTRACTOR at the rates in force and thereafter increased, imposed or modified from time to time in respect of works and materials. The contractor shall be liable to pay/ bear any claim for compensation arising on account of non employment or any amount is payable to central Government or State Government or any local authorities for the purpose of protecting the interest and rights of the workers employed by it and all statutory dues etc and the employer will not in anyway be responsible for any claim which might be made by any of the workers/employees employed by the contractor in respect of the work to be carried out by the contractor under this contract.

13. MEASUREMENT & MODE OF PAYMENT:

13.1. The CONTRACTOR shall be entitled to payment at the rates specified in Annexure– I as agreed upon.

In case of additional work / new works which are not covered in the schedule, the item rate will be applicable as per Data working approved by Engineer.

13.2. All payments will be made at Coimbatore

13.3. The CONTRACTOR shall make necessary arrangements for providing tapes, levelling instruments, assistants, stationery etc., and for which CONTRACTOR is not eligible for extra payment.

13.4. The CONTRACTOR are not eligible for payment for incomplete work, damaged works and for Non-Contracted works if the reasons are attributable to the CONTRACTOR.

13.5. The CONTRACTOR will submit the bill in stage wise for the work done once in a month or for Total value of work done a net payable value not less than Rs.3, 50,000/- (Rupees Three Lakhs Fifty Thousand Only).

14. A. EMPLOYMENT OF LABOUR, TECHNICAL AND ADMINISTRATIVE STAFF

i)The CONTRACTOR shall employ labour in sufficient number to maintain the required rate of progress and the quality of work required to be carried out under contract and ensure that the workmanship is in accordance with the specifications and carry out the work to the satisfaction of the employer.

ii)The CONTRACTOR shall remain liable for payments of all wages, statutory benefits, or other payments to his work people or employees under the payment of Wages Act, 1936 Employers liability Act 1938, Workman Compensation Act 1923. ESI Act, Employee Provident Funds and Miscellaneous Provisions Act, Factories Act, Payment of Wages Act, Minimum Wages Act, or any other Act or, enactment relating thereto and rules framed there under from time to time.

iii)The terms and conditions of work, work place environment, duration of work, intervals, rest period, holidays, payment of overtime wages to workmen, supervisory or other personnel engaged or deployed by the CONTRACTOR at site for the execution of work as per this Contract shall be in accordance with the provisions under various statutes, rules and regulations of Central and State Government and local bodies.

vi) No child labour shall be employed for any kind of work in the site.

v) For purpose of supervision of the project the CONTRACTOR is required to deploy adequate qualified supervisory personnel.

B. OBLIGATIONS UNDER VARIOUS STATUTES

- i. Contract labour attracts the provision of following Acts:
 - a) Contractor Labour (Regulation of Abolition) Act.
 - b) ESI Act.
 - c) Employees Provident Funds and Miscellaneous Provisions Act.
 - d) Factories Act
 - e) Payment of Wages Act
 - f) The Minimum Wages Act
- ii. The contractor shall also comply with the provisions of the labour laws in regard to welfare of labour engaged by him apart from the above mentioned.

The contractor shall provide adequate toilet, bathing and other sanitary facilities for the workers and staffs employed by him at site and maintain the same in good condition. On completion of work these facilities shall be dismantled; the place cleared, and used for any purpose that the Employer may have allotted as per the plan.

The contractor alone shall be liable for any penal consequences / actions on account of breach of any of the obligations relating to the compliance of the requirements of the various statutes detailed supra or any other statute or rules to be compiled with and shall keep the employer indemnified from any claim from any workers/ employees under his employment or any claim from any governmental agencies or statutory authorities etc.,

15. MATERIALS & WORKMANSHIP:

15.1. The CONTRACTOR shall at his cost produce to the Engineers samples of such materials to be used on the work and the materials used in the construction shall strictly comply with the sample furnished. These approved samples shall remain in the office of Employer / Engineers at site.

15.2. The rates quoted by the CONTRACTOR are for finished work in site and include all contingent expenses whether direct or indirect.

15.3. The CONTRACTOR shall make available to the Employer / Engineers all necessary instruments and assistance in checking, setting out of work and similar other work.

15.4. The CONTRACTOR shall ensure that materials bought bear ISI stamp and/or should be of reputed manufacture.

15.5. The CONTRACTOR shall furnish samples of all materials to the Employer/ Engineers for approval as when they start the new works.

15.6. CONTRACTOR shall stock all his materials like coarse aggregates, fine aggregates, cement, Fly ash bricks, steel etc., in proper form and only at places approved by Employer/Engineers to ensure coordinated working of several agencies at site, and during inclement weather the CONTRACTOR may have to suspend the work and inform the Employer about the suspension. Also it is the CONTRACTOR'S responsibility to protect such work from being impaired by the weather condition.

16. The CONTRACTOR will at his expense arrange for a storage/fire policy, covering all materials stored at site and copy of such policy should be filed with the Employer within a month of this agreement.

17. All tests that will be necessary in connection with, the execution of the works shall be carried out as decided by the Engineers. Compressive strength of cubes of size 150mm, after seven/twenty eight days, brick compressive strength test, result furnishing etc., at the CONTRACTOR'S cost. Also the CONTRACTOR shall maintain a register showing results of the tests and provide free access thereto to the Engineers and Employer.

Testing of Concrete and Fly Ash Bricks:

It is the responsibility of the CONTRACTOR to test the concrete and Fly Ash brick as detailed below:

1. Plain cement concrete: :

Slabs Every 25 cum, 3 Cubes shall be cast

2. For Bricks: Every 30,000 Nos. or Part thereof, supplied from a single source.

18. Explosives shall not be used on the works by the CONTRACTOR without the permission of the Employer/ Architects in writing and without such license as may be required under Government needs. CONTRACTOR shall employ qualified and licensed people to carry out this job and shall carry it out in accordance with the Explosives Act.

19.1. HEALTH AND SAFETY REGULATIONS

19.1.a. At the work site the CONTRACTOR shall maintain in a readily accessible place, first aid appliances and medicine including an 'adequate supply of dressing materials etc., in good condition.

19.1.b. The CONTRACTOR shall provide water of good quality for drinking purposes for workers. Well, if any shall be properly chlorinated before water is drawn from it by the CONTRACTOR at his own cost.

19.1.c. The CONTRACTOR shall make provisions for fire proof shelters during the rest hours, crèches, sanitary facilities, for the workers at the site without any hindrance to the work spot.

- i. It shall be the responsible of the contractor to insure the work against loss and damages by fire, and to cover all possible claims for damage to private property and injury to workmen and shall maintain the insurance coverage in force until the entire completion of the work as certified by employer.
- ii. The Employer shall in no way be responsible for any loss occurring or caused to the Contractor on account of damages caused due to any or all of the reasons mentioned in (a) above or failure of the contractor to take insurance coverage as required (a) above.
- iii. Such insurance shall not be a limit or bar, to liability and obligation of the contractor or complete the entire work in all respects as certified by the Employer.

19.2. The Contractor shall be solely responsible for meeting the claim of any of its workers / employees or their legal representatives arising out of any accident causing death or injury to any worker/ employee damage to personnel, property of the workers/employees while carrying out any of the duties or functions or work relating to any work covered under this agreement and also in respect of any claim of any third parties arising out of any fault, negligence or wilful acts or omissions on the part of the CONTRACTOR, or his employees, representative and agents and the contractor shall keep the employer indemnified against any such claim.

19.3. During the course of construction Engineers will have the freedom to delete any part of the work from the scope of this contract and no claim will be entertained.

The Employer / Engineers shall have the right to employ external agencies for special works or for architectural works or if the Employer feels the CONTRACTOR will not be able to complete a particular job in time etc., not include in the schedule of Quantities. The Employer also reserves the right of employing other agencies for the works contracted, in case of emergency or unsatisfactory progress of work, and deducts the expenses incurred from the CONTRACTOR bill. In such cases the CONTRACTOR has no extra claim for compensation over this.

20. DAMAGE AND LOSS TO PRIVATE PROPERTY AND INJURY TO WORKMEN:

- i. The contractor shall at his own expense reinstate and make good to the satisfaction of the Employer and pay compensation for any injury loss or damage occasioned to any property or right whatever including property and rights of Employer (or employees of Employer) the injury, loss or damage arising out of or in any way in connection with the execution or proposed execution of the Contract and further the Contractor shall indemnify Employer against all claims enforceable against Employer or which would be so enforceable against employer or which would be so enforceable against a private person, in respect of any such injury (including resulting in death), loss or damage to any person whosoever or property, including all claims which may arise under the workmen's Compensation Act or otherwise.

- ii. Unless upon notification of any claim the Insurance Company elects to reinstate or rectify the defects itself, the Contractor shall irrespective of the acceptance/settlement or otherwise of the claim by the Insurance Company proceed with all due diligence with the completion or reinstatement or rectification of the works in the same manner and in all respect under the same conditions of Contract.

21. LIQUIDATED DAMAGE: In the event of failure to complete the work within the stipulated time, Employer will levy a Liquidated Damage of 0.5% (Zero Point Five percent) of the total Contract value of that particular building per week-subjected to a maximum of 1% (One percent only) upto three weeks, beyond which the contract will be terminated, in which case, Employer will have the right to claim all liquidated damages from the Contractor. Employer also reserves the right to award a contract to complete the incomplete work to a third party and the cost thereof to complete the incomplete work by the third party shall be to contractor's account.

22. PENALTY FOR BAD WORK AND REMOVAL OF IMPROPER WORK

If any work has been executed with unsound, imperfect or unskilful workmanship or with materials of inferior quality or that any materials or articles provided by him for the execution of the work are unsound or of quality not in accordance with the contract, it shall be lawful for the Employer/Engineers to intimate this fact in writing to the contractor and then notwithstanding the fact that the work, materials or articles complained of may have been paid for, the contractor shall be bound forthwith to rectify or remove and reconstruct the work so specified and provide other proper and suitable materials or articles at his own charge and cost.

In event of the contractor failing to do so within a period to be specified by the Employer / Engineers in the written intimation aforesaid, the Employer may rectify, or remove and re-execute the work or remove and replace the materials or articles complained of, as the case may be, at the risk and expense in all respects of the Contractor. Should the Employer for any valid reasons, consider that any such inferior work or materials as described above has to be accepted or made of, it shall within his discretion to accept the same at such reduced rates as he may fix therefore.

23. SETTLEMENT OF DISPUTES: All disputes and differences arising between the employer and the contractor in respect of any matter deal with under this agreement or in respect of interpretation of any clauses of this contract whether during the progress of the work or after completion shall be determined only by arbitration and not by other means

PROCEDURE:- If any such dispute or difference arises, either the employer or the contractor can raise a dispute before the Engineers and request him to decide the dispute/ difference by way of arbitration. It is open to the Engineers to decide the dispute himself as sole arbitrator or at his discretion he may appoint a sole arbitrator who in his view is capable of understanding the issues involved in the dispute Provision of Indian Arbitration and Conciliation Act 1996 or any other statute , modification there of shall apply.the award passed by the sole arbitrator shall be final and binding on both the parties.the place of arbitration shall be Coimbatore. The architect is empowered under this contract to issue such suitable interim directions pending disposal of his decisions as sole arbitrator / the decision of the sole arbitrator appointed by him.

25. FORCE MAJEURE AND WAIVER : Should any force majeure circumstances intervene after the date of this contract and impede or prevent or delay the execution thereof, then the time schedule of performance under this contract shall be automatically extended by the actual delay in performance of such obligation caused by such circumstances after mutual discussion and agreement. Any such extension should be in, writing and signed by both the parties.

Force majeure shall be considered as any circumstances beyond the reasonable control of the party claiming relief, including but not imitated to strikes/lock out, civil commotion, riot, insurrection, hostilities, mobilization, war, fire, flood, earthquake, malicious act, damages and accidents.

Failure on any occasion of either party to insist upon strict adherence to any of the provisions of this contract or to enforce any of his rights under this, contract shall not be considered as waiver of such provisions or rights in any manner.

A waiver by either party shall not be effective unless it is given in writing. An effective waiver shall not extend to or affect any provisions on rights “not, expressly waived nor shall an effective waiver on one occasion operate as waiver of any provisions or rights in the event of occurrence on a future occasion of the same cause which gave rise to such effective waiver.

26. TIME EXTENSION:

If there is a delay on part of the employer for any decisions suitable extension of time only will be given.

27. MISCELLANEOUS:

27.1. The CONTRACTOR should not employ children below the age of 15 years as labourers. No women should be employed for night work.

27.2. The CONTRACTOR shall observe and abide by all fire and safety regulations in consultation with the Employer's safety regulations or the Employer/Engineers.

The CONTRACTOR shall make good to the satisfaction of the employer any loss or damage due to fire to any portion of the work done or to be done under this agreement.

27.3. The utility conveniences provided by the CONTRACTOR for his labourers shall have free access of use by other CONTRACTOR also.

27.4. The CONTRACTOR shall make his own arrangements to support or scaffold, etc., wherever necessary for safe execution of the work and without disturbing the adjacent structures, if any, temporary buildings or buildings requiring support have to be properly strengthened, supported, shoring and strutting, if any, have to be done by the CONTRACTORS without any extra payment.

27.5. In case of any injuries, casualties, damages, loss, theft, etc., happening to the men, materials and machine of CONTRACTORS due to their fault or faulty application or on Violating their span, or space of work-the Employer shall not be held responsible.

27.6. The CONTRACTOR shall not be liable for all or any loss to the Employer's materials and items not covered by the contract etc., occasioned by arising out of GOD or in particular, unprecedented floods, earthquake or other conclusion of nature rebellion, military or usurped power.

27.7. If night work is to be done special permission should be sought for, from the Employer and the CONTRACTOR should provide all necessary safety and lighting arrangements.

27.8. The CONTRACTOR is responsible for maintaining peaceful and safe Progress of work. If any conflicts, among the group of labourers, it is the liability in any form to the Employer during the progress of work and in future.

27.9. The CONTRACTOR on requisition from the Employer shall run canteens. It will be the responsibility of the CONTRACTOR to maintain the environment safe and pollution free. He has no right to cut trees bushes etc., in the lands of the Employer for firewood and other purposes.

Statutory compliance –the contractor as the immediate employer shall be liable to discharge all the obligations to the workers/ employees notwithstanding the fact that the employer may be viewed as the principle employer for the statutory purpose.

PART II: GENERAL SPECIFICATION OF WORKS – CIVIL WORKS

Mortar: Mortar shall be prepared as per specification. Cement and Manufactured sand shall be measured standard size box. No bulkage in M.sand is allowed unless the permission given by the Engineers. The mortar shall be, mixed separately allowing adequate quantity of good water and well mixed.

Water: Water used for both mixing and curing shall be free from injurious amounts of deleterious materials. Potable water is generally considered satisfactory for mixing and curing concrete. In case of doubt, the suitability of water for making concrete shall be ascertained by the compressive strength and initial setting time tests specified.

Concreting Works:

a. For all reinforced cement concrete works as per structural details.

b. General:

The metal for concrete shall be according to the specification. The materials obtained from particular quarry shall be got approved by the Employer/Engineers. The nominal maximum size of the coarse aggregate, should be as large as possible within limits specified but in no case greater than one fourth of minimum thickness of the member provided. Concrete can be placed without difficulty so as to surround all reinforcement thoroughly. For heavily reinforced concrete members as in case of ribs of main beams, the size of the aggregates should be 5mm. less than minimum cover. The sizes shall be thoroughly graded and it shall be free from all debris and vegetations and washed. Manufactured Sand shall be of best Manufactured sand no silty sand is permitted for construction. Manufactured Sand shall be thoroughly screened according to the work and as per ISI specifications.

For plain cement concrete works, ramming, consolidation and levelling should be done perfectly. For reinforced cement concrete using of vibrator is very essential. Briquettes of required size using C.M. 1:2 mix using 6mm and below chips shall be made and stocked for all concreting works for CLEAR COVER.

Curing of all concrete works either plain or reinforced shall be covered by a layer of sacking, canvas, Hessian, straw-mats or similar absorbent materials or a layer of sand and kept constantly wet.

The exposed surfaces of RCC works are to be made rough to receive the plastering.

To avoid segregation of materials, concrete mixtures shall be dropped not more than 1500 mm height. Needle vibrator shall be used for column, beam, slab, concrete walls, machinery foundations etc., to avoid honeycombs.

No deduction of floor slab openings will be made in concrete up to 0.10 sqm. In plain area.

Fly Ash Brick Masonry : Fly Ash Bricks shall be of quality of table moulded bricks of uniform size and edges, confirming to standard specifications like weight not less than 3.3 kg and water absorption should be less than 20% (of 24 hours), compressive strength not less than 70 kg/sq.cm., etc. Bricks shall be thoroughly soaked in water for 8 - 12 hours before using for construction purpose. The brick work shall not be raised on any reason above 1000 mm in one day. For brick masonry using Fly Ash Bricks, the bricks shall be procured from the best available, subject to the approval of Engineers.

Shuttering, Centering and Scaffolding: Shuttering shall be in general by wooden, planks or plywood sheets. Plywood/steel shuttering is permitted, provided the surface if required to be constructed with masonry or plastered the surface of contact it shall be thoroughly hacked by the contractor free of coat. If the planks are used it shall be of minimum thickness of 35 mm.

Form work shall be used for all the inner surfaces, of the shuttering, centering, etc. Shuttering/centering shall be designed such a way that the edges of the concrete members need not be damaged.

Scaffolding shall be double scaffolding using steel pipes or casuarinas props with planks.

Safety should be ensured before commencing the work.

Plastering: The specified thickness of the plastering is approximate only. In all cases the plastering shall be of sufficient thickness to fill irregularities in surfaces of masonry and finishing surfaces plastering should be uniform texture and free from hair cracks. Before plastering the concrete surface it shall be thoroughly hacked. Edges shall be square finished to one line. Before plastering dots must be provided for evenness of plastering.

Steel Fabrication: Steel reinforcement shall be fabricated according to the detailed drawing. The lap shall be minimum 50d. Hooks shall be confirming to IS: 5525-1969 and IS: 2502-1963 specification. Binding wire shall be 18 gauge.

Painting: Painting shall be done after thoroughly cleaning the surface by carborundum stones or sand papers. The surface will be made free from dirt, dampness, grasses, patches, cracks, etc. Putty work if necessary may be carried out to cover undulations and shall be done by roller.

Paints shall be of first quality manufacture, got approved from the Engineers. Colour and texture will be decided by the Engineers. Cement paint shall be cured thoroughly. Brushes shall be of first quality.

Additional specifications

Setting out and Tolerance (all in millimetres)

The contractor is responsible for all setting out and construction as follows:

- | | | |
|---|---|-------------------|
| a. Reinforced Cement Concrete | - | Maximum tolerance |
| 1. Verticality | - | 1 in 1000 |
| 2. Level | - | 1 in 600 |
| 3. Alignment | - | 5mm |
| 4. Size and location of opening | - | 5mm |
| 5. 4. Specific dimension | - | 1mm |
|
 | | |
| b. Mass Concrete on Fly ash brick walls | - | Maximum tolerance |
| 1. Verticality | - | 1 in 1000 |
| 2. Level | - | 1 in 600 |
| 3. Alignment | - | 5mm |
| 4. Size and location of opening | - | 5mm |

REGISTRAR