

SHIVAJI UNIVERSITY, KOLHAPUR

Name of Work: Providing & Fixing Proflex Sheet roofing for Construction of new labs for scientific equipment under PM-Usha at the USIC building.

Instructions for the Tender

The Tenderers should attach the following documents along with the tender:

1. PAN card
2. A valid G.S.T. registration certificate of contractor.
3. The Valid P.W.D. registration certificate of contractor.
4. The work experience certificates of similar type, nature of work.
5. A list of works executed and in hand along with its cost & the addresses of the owners.
6. A Photostat copy of the partnership deed and power of attorney if any.
7. List of machinery and plants available with the tenderer for immediate use on the work.
8. The details of Technical Personnel on the roll of the tenderer.
9. The tender must be submitted in e-tender format.
10. Exemption on EMD is not entertained.

[Important Note: Please note that omission to attach any document is likely, to invalidate the tender.]

Dy. Registrar (Civil)

Shivaji University, Kolhapur

SHIVAJI UNIVERSITY, KOLHAPUR

TENDER

Name of Work: Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building.

Estimated Cost: - Rs. 20,98,042 /-

- 1. Site of Work - University Campus, Vidyanagar, Kolhapur - 416 004**
- 2. Cost of tender form :- Rs. 590 /-**
- 3. Initial E.M.D. for the work :- Rs. 20,980/-**
- 4. Security Deposit:**
 - 1. Cash / D.D. 1.0% of estimated cost (Not less than the amount of earnest money.**
 - 2. 2.0% will be deducted from current running bills.**
- 5. Period for completion of work: One month**

**University Engineer
Shivaji University.**

SHIVAJI UNIVERSITY, KOLHAPUR

Percentage Tender and Contract for Works

Name of Work: Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building.

General Rules and Directions for the Guidance of Contractors

1. All works proposed to be executed by contract shall be notified in a form of invitation to tender pasted on a board hung up in the office of the Shivaji University and signed by the Registrar.

This form will state the work to be carried out as well as the date to submitting and opening tenders and the time allowed for carrying out the work also the amount of earnest money to be deposited with the tender and the amount of the security deposit to be deposited by the successful tenderer and the percentage, if any, to be deducted from bills. It will also state whether a refund of quarry fees, royalties and ground rents will be granted. Copies of the specifications designs and drawings estimated rates, scheduled rates and any other documents required in connection with the work shall be signed by the Junior Engineer for the purpose of identification and shall also be open for inspection by contractors at the office of the Junior Engineer during officer hours.

Where the works are proposed to be executed according to the specifications recommended to a contractor and approved by a competent authority on behalf of, the Shivaji University such specifications with designs and drawings shall form part of the accepted tender.

2. In the event of the tender being submitted by a firm, it must be signed by each partner thereof and in the event of the absence of any partner, it shall 'be signed on his behalf by a person holding a power of attorney authorizing him to do so.

2. (A) **i)** The contractor shall pay along with the tender the sum of **Rs. 20,980 /-** as and by way of earnest money. The contractor may pay the said amount in cash or D.D. in favour of the **Finance and Account Officer, Shivaji University** payable at Kolhapur. The said amount of earnest money shall not carry any interest what so ever.

ii) In the event of his tender being accepted, subject to the provisions of sub-clause (iii) below, the said amount of earnest money shall be appropriated towards the amount of security deposit payable by him under conditions of General Conditions of contract.

iii) If, after submitting the tender, the contractor with-draws his offer, or modifies the same or if, after the acceptance of his tender the contractor fails or neglects to furnish the balance of security deposit without prejudice to any other rights' and powers of the Shivaji University hereunder of in law. The amount of EMD deposited by the contractor shall stand for forfeited to the University.

In the event of his tender not being accepted, the amount of earnest money deposited by the 'contractor shall, unless it is prior thereto forfeited under, the provisions of sub clause (iii) above, be refunded to him on his passing receipt therefore within ,a period of three months from the date of deposit.

3. Receipts for payments made on account of any work when executed by firm should also be signed by all the partners except where the contractors are described in their tender as a firm in which case the receipt shall be signed in the name of the firm by one of the partners, or by some other person having authority to' give effectual receipts for the firm.

4. Any person who submits a tender shall fill up the usual printed form stating at what rates (memorandum showing items of work to be carried out) he is willing to undertake the work. Only one rate on all the estimated quantities/Scheduled quantities shall be named. Tenders, which propose any alteration in the works specified in the said form of invitation to tender, or in the time allowed for carrying out die work or which contain any other conditions, of any sort will be liable to rejection. No printed form of tender shall include a tender for more than one work but contractors who wish to tender for two or more works, they shall submit a separate tender for each. Tender shall have the name and number of the work to which refer written outside the envelope.

5. The Registrar or his duly authorized Assistant shall open the tenders in the presence of contractors who have submitted tenders or their representatives who may be present at the time, and he will enter the amounts of the several tenders in a comparative statement in a suitable form. In the event of a tender being accepted, the contractor shall for the purpose of identification. sign copies of the specifications and other documents mentioned in Rule 1. In the event of tender being rejected, the Registrar shall refund the amount of the earnest money by cheque deposited to the contractor making the tender. on his giving a receipt for the return of the money.

6. The B. & W. C. shall have the right of rejecting all or any of the tender, without assigning reasons therefore.

7. No receipt for any payment alleged to have been made by a contractor in regard to any matter relating to this tender or the contract shall be valid and binding on the Shivaji University unless it is signed by the Registrar or his assistants empowered to do so.

8. The memorandum of work to be tendered for and the schedule of materials to be supplied by the Shivaji University and their rates shall be filled in and completed by the office of the Junior Engineer before the tender form is issued. If a form issued to an intending tenderer has not been so filled in and completed, he shall request the said office to have this done before he completes and delivers his tender.

9. All work shall be measured net by standard measure and according to the rules and customs of the P.W.D. and without reference, to any local custom or as specified in the specifications.

10. The measurements of 'work will be taken according to the usual methods in use in the P.W. Department and no proposals to adopt alternative methods will be accepted. The Junior Engineer's decision as to what is 'the usual method in use in the P. W. Department' will be final.

11. Under no circumstances the contractor shall be entitled to demand enhanced rates for items in this contract.

12. Every unregistered contractor shall, {unless exempted in writing by the Registrar produce along with ' his tender a solvency certificate to the extent of 20% of the tendered cost of the work from 'the Collector of the District of Tahasildar of Taluka within which he resides or a banker's certificate of his financial stability., If he fails to produce such a certificate his tender will not be considered.

OR

Every registered contractor should produce along with his tender certificate of registration as approved contractor in the appropriate class and renewal of such registration with date of expiry.

13. All corrections and additions or pasted' slips in the tender document should be initialed by the contractor.

14. The tendering contractor shall furnish a declaration along with the tender showing all works which he has already entered into contract and the value of the work that remains to be executed in each case on the date of submitting the, tender.

~~15. Every tenderer shall furnish along with the tender, information regarding the Income Tax or Ward of the District in which he is assessed to income tax, the reference to the number of the assessment year, and a valid Income Tax clearance certificate.~~

16. The contractor will have to construct shed for storing controlled and valuable materials issued to him under Schedule 'A' of the agreement, at work site. having double locking arrangement. The materials will be taken for use in the presence of the representative of the University Jr. Engineer. No materials will be allowed to be removed from the site of works.

17. The contractors shall also give a list of machinery in their possession and which they propose to use on the work.

18. Every un-registered contractor should furnish along with tender a statement showing previous experience and technical staff employed by him.

19. Successful tenderer will have to produce to the satisfaction of the accepting authority a valid and current license issued in his favour under the provision of Contract Labour (Regulation and Abolition) Act 1970 before starting work, failing which acceptance of the tender will be liable for withdrawal and earnest money will be forfeited to the Shivaji University.

20. The contractor shall comply with the provisions of the Apprentices Act 1961 and the rules and orders issued there under from time to time. If he fails to do so, his failure will be a breach of the contract and the Registrar may, his discretion cancel the contract. The contractor shall also be liable, for and pecuniary liability arising on account of any violation by him of the provision of the Act.

Tender for works

I/We hereby tender for the execution, for the Shivaji University (here-in before and herein after referred to as 'University') of the wok specified in the underwritten memorandum within the time specified in such memorandum at in figures as well as in words quoted rates entered in Schedule B (memorandum showing. items of work to be carried out) and in' accordance in all respects with the specifications, designs, drawings and instructions in writi!lg referred to in Rule 1 hereof and in Clause 12 of the annexed conditions of contract

and agree that when materials for the work are provided by the University such materials and the rates to be paid for them shall be as provided in Schedule A hereto.

Memorandum

| | | |
|---|---|------------------------|
| a) If several sub works are included they should be detailed in separate list. | a) General description Construction of: Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building. | |
| b) The amount of earnest money to be deposited shall be in accordance with the provisions of paras 204 and 205 of the M.P.W. Manual. | b) Estimated cost | Rs. 20,98,042/- |
| c) This deposit shall be in accordance with the paras 211 and 212 of the M.P.W. Manual. | c) Earnest money | Rs . 20,980/- |
| d) This percentage where no security deposit is taken, will vary from 5 percent to 10 percent according to the requirement of the case where security deposit is taken, see note to Clause 1 of conditions of contract. | d) Security Deposit: | Rs...../- |
| | i) Cash (Not less than the amount of earnest money). | Rs. 41,961/- |
| | ii) To be deducted from current bills. | Rs. 41,961/- |
| | Total- | Rs. 1,04,902/- |
| e) Time allowed for the work from date-of Written order to commence, is One month . | e) Percentage, if any, to be deducted from bills so as to make up the total amount required as security deposit by the time, half the work, as measured by the costs; is done Five percent. | |
| | f) Give schedule where necessary showing dates by which the various items are to be completed. | |

Conditions of Contract

Claus 1- Security Deposit: The person/persons whose tender may be accepted (hereinafter called the contractor, which expression shall unless excluded by or repugnant to the context include his heirs, executors, administrators and assigns) shall (A) (within one day for a contract of Rs. 1,000/- or less or two days for contract of more than Rs. 1,000/- but less than Rs. 2,000/- and so on up to limit of ten days, which may be extended by the Registrar. up to fifteen days, if the Registrar thinks it fit to do so, for a contract of over Rs.10,000 of the receipt by him of the notification of the acceptance of his tender deposited with the Registrar (if deposited for more than 12 months) of sum sufficient which will make up the full security deposit specified in the tender or (B) [Permit University at the time of making any payment to him for work done under the contract to deduct such as will amount to *five percent of .all money so payable such deduction to be held by University by way of security deposit] Provided always that in the event of the contractor depositing, a lump sum by way of security deposit as contemplated at (A) above. then and in such case, if the sum so deposited shall not amount to five percent of the total estimated cost of the work, it shall be lawful for University at the time of making any payment to contractor for work done under the contract to make up the full amount of five percent by deducting a sufficient sum from every such payment as last aforesaid until the full amount of the security deposit is made up. All compensation or other sums of money payable by the contractor to University under the terms of his contract may be deducted from or paid by the sale of sufficient part of his security deposit or from the interest arising there from or from any sums which may be due or may become due by University to the contractor under any other contract or transaction of any nature on any account whatsoever and in the event of his security deposit being reduced by reason of any -such deduction or sale as aforesaid, the contractor shall, within ten days thereafter, make good in cash any sum or sums which may have been deducted from, or raised by sale of his Security deposit or any part thereof.

If the amount of the security deposit to be paid in a lump sum within the period specified at (A) above is not paid the tender/contract already the accepted shall be considered as canceled and legal steps taken against the contractor for recovery of the amounts. The security deposit lodged by a contractor shall be refunded after the expiry of six months from the date on which the final bill is paid, or after expiry of the date up to which the contractor has agreed' to maintain the work in good order, whichever is later.

Clauses 2- Compensation for delay :- The time allowed for carrying out the work as entered in the tender shall strictly observed by the contractor and shall be reckoned from the date on which the order to commence work is given to the contractor. The work shall through the stipulated period of the contract be proceeded with all due, diligence (time being deemed to be the essence of the contract on the part of the contractor) and the contractor shall pay as compensation an amount equal to one per cent or such smaller amount as the University Jr. Engineer (whose decision in writing shall be final) may decide, of the amount of the estimated cost of the whole work as shown by the tender for every day that the work remains un-commenced, or unfinished after the proper dates. And further to ensure good progress during execution of the work, the contractor shall be bound in all cases in which the time allowed for any work exceeds one month to complete.

| | |
|--------------------|---------------|
| * ¼ of the work in | ¼ of the time |
| ½ -do- | ½-do- |
| ¾ -do- | ¾ -do- |

* (Note: - The quantity of the work to be done within a particular time to be specified above shall be fixed and inserted in' the blanks space kept for the purpose by the Officer competent to accept the contracts after taking into consideration the circumstances of each case) and abide by the programme of detailed progress laid down by the University Engineer.

The following proportion will usually be found suitable:

In 1/4; ¾ of the time

Reasonable progress of earth work 1/6 1/2 3/4 of the total value of the work to be done.

Do Do of the masonry work Do. Do

In the event of the contractor failing to comply with these conditions he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the University Jr. Engineer (whose decision in writing shall be final) may decide of the said estimated cost of the whole work for every day that due quantity of work remains incomplete Provided always that the total amount of compensation to be paid under the provisions of this clause shall not exceed 10 per cent of the estimated cost of the work as shown in the tender.

Clause 3- Action when whole of security deposits is forfeited: In any case in which under any clause of this contract the contractor shall have rendered himself liable to pay compensation amounting to the whole of his security deposit (whether paid in one sum or deducted by installments) or in the case or abandonment of the work owing to serious illness or death of the contractor or any other cause, the Registrar, on the recommendations of the University Jr. Engineer on behalf of the University, shall have power to adopt any of the following courses, as he may deem best suited to the interest of the University.

a) To rescind the contract (for which rescission notice in writing to the contractor under the hand of the Registrar shall be conclusive evidence) and in that case the Security deposit of the contractor, shall stand forfeited and be absolute at the disposal of the University.

b) To carry out the work or any part of the work departmentally debiting the contractor with the cost of the work, expenditure incurred on tools and plant and charges .on additional supervisory staff including the cost of work-charged establishment employed for getting unexecuted part of the work completed and crediting him with the value of the work done departmentally in all respects in the same manner and the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the University Jr. Engineer as to the costs and other allied expenses so incurred and as to the value of the work so done departmentally shall be final and conclusive against the contractor.

c) To order that the work of the contractor be measured up and to take such part thereof as shall be unexecuted, out of his hands and to give it to another contractor to complete, in which case all expenses incurred on advertisement for fixing a new contracting agency, additional supervisory staff including the cost of work-charged establishment and the cost of the work executed by the new contract agency will be debited to the contractor and at the

value of the work done or executed through the new contractor shall be credited to the contractor in all respects and in the same manner and at the same rates as if it had been carried out by the contractor under the terms of his contract. The certificate of the University Jr. Engineer as to all the cost of the work and other expenses incurred as aforesaid for or in getting the unexecuted work done by the new contractor and as to the value of the work so done shall be final and conclusive against the contractor.

In case the contract shall be rescinded under clause (a) above the contractor shall not be entitled to recover or be paid, any sum for any work there for actually performed by him under this contract unless and until the University Jr. Engineer shall have certified in writing the performance of such work and the amount payable to him in respect thereof and he shall only be entitled to be paid the amount so certified. In the event of either of the courses referred to in clause (b) or (c) being adopted and the cost of the work executed departmentally or through a new contractor and other allied expenses exceeding the value of such work credited to the contractors, the amount of excess shall be deducted from any money due to the contractor by the University under the contractor of otherwise how-so ever or from his security deposit or the sale proceeds thereof provided, however that the contractor shall have no claim against the University even if the certified value of the work done departmentally or through a new contractor exceeds the certified cost of such work and allied expenses, provided always that whichever of the three courses mentioned in clauses (a), (b) or (c) is adopted by the Registrar, the contractor shall have no claim to compensation for any loss sustained by him reason of his having purchased, or procured any materials, or entered into any engagements, or made any advances on account of or with a view of the execution of the work or the performance of the contract.

Clause 4- Action when the progress of any particular portion of the work is unsatisfactory: If the progress of any particular portion of the work is unsatisfactory, the University Jr. Engineer shall notwithstanding that the general progress of the work is in accordance with the conditions mentioned in clause 2, be entitled to take action under clause 3 (b) after giving the contractor 10 day's notice in writing. The contractor will have no claim for compensation, for any loss sustained by him owing to such action.

Clause 5- Contractor remains liable to pay compensation if action not taken under Clauses 3 & 4: Power to take possession of or require removal of or sell contractor's plant: In any case 'in which any of the powers conferred, upon the Registrar by clauses 3 and 4 hereof shall have become exercisable and the same shall not have been exercised, the non exercise thereof shall not constitute a waiving of any of the conditions hereof and such powers shall notwithstanding be exercisable in the event of any future case of default by the contractor for which under any clauses hereof he is declared liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Registrar taking action under sub-clause (a) or (c) of clause 3, he may, if he so desires, take possession of all or any tools, plant, materials and stores, in or upon the works or the site thereof or belonging to the contractor, or procured by him and intended be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case, of contract rates, not being applicable at current market rates, to be certified by the University Jr. Engineer whose certificate thereof shall be final. In the alternative, the Registrar may after giving notice in writing to the contractor or his clerk of the work, foreman or other authorized agent require him to remove such tools, plant, materials, or stores from the premises within a time to be specified in such notice and in the event of the contractor failing to comply with any such requisition, the Registrar may remove them at

the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the University Jr. Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor.

Clause 6 - Extension of time: If the contractor shall desire an extension of the time for completion of work on the ground of his having been unavoidably hindered in its execution or on any other ground, he shall apply in writing to the Registrar before the expiry of the period, stipulated in the tender or before the expiration of 30 days from the date on which he was hindered as aforesaid or on which the cause for asking for extension occurred, whichever is earlier and the Registrar if satisfactory about the reasonability of grounds for granting an extension, grant such extension as he thinks necessary or proper, the decision of the Registrar in this matter shall be final.

Clause 7 - Final Certificate: On the completion of the work the contractor shall be furnished with a certificate by the University Junior Engineer (hereinafter called the Engineer-in-charge) of such completion, but no such certificate shall be given nor shall the work be considered to be complete until the contractor shall have removed from the premises on which the work shall have been executed, all scaffolding, surplus, materials and rubbish, and shall have cleaned off, the dirt from all woodwork, doors, windows, walls, floor or other parts of any building in or upon which the Work has been executed, or of which he may have had possession for the purpose of executing the work" nor until the work shall have been measured by the Engineer in charge or where the measurements have been taken by his subordinates until they have received approval of the Engineer in charge, the said measurements being binding and conclusive against the contractor. If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffolding, surplus materials and rubbish and cleaning of dirt on or before the date fixed for the completion of the work the Engineer in-charge may at the expenses of the contractor, remove such scaffolding, surplus materials and rubbish, and dispose of the same as he thinks fit and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred, but shall have no claim in respect of any such scaffolding or surplus materials as aforesaid except for any sum actually realized by the sale thereof.

Clause 8 - Payment on Intermediate Certificate to be regarded as advances: No payment shall be made for any work estimated to cost less than rupees one thousand till the whole of work shall have been completed and a certificate of completion given, But in the case of works estimated to cost more than rupees one thousand, the contractor shall, on submitting a monthly bill therefore, be entitled to receive payment proportionate to the part of the work then approved and passed by the Engineer-in-charge, whose certificate of such approval and passing of the sum so payable shall be final and conclusive against the contractor. All such intermediate payments shall be regarded as payments by way of advance against the final payments only and not as payments for work actually done and completed, and shall not preclude the Engineer-in-charge from requiring any bad, unsound, imperfect or unskillful work to be removed or taken away and reconstructed or re-erected nor shall any such payment be considered as an admission of the due performance of the contract or any part thereof in any respect or the accruing of any claim, nor shall it conclude, determine or affect in any other way the powers of the Engineer-in-charge as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the contract. The final bill shall be submitted by the contractor within one month of the date fixed for the completion of the work, otherwise the Engineer-in-charge's certificate of the measurements and of the total amount payable for the work shall be final and binding on all parties.

Clauses 9 – Payments at reduced rates on account of items of work not accepted as completed to be at the discretion of the Engineer-in-charge: The rates for several items of works estimated to cost more than Rs. 1,000/- agreed to within shall be valid only when the item concerned is accepted as having been completed fully in accordance with the sanctioned specifications. In cases where the items of work are not accepted as so completed the Engineer-in-charge may consider reasonable in the preparation of final or on account bills.

Clause 10 - Bills to be submitted monthly: A bill shall be submitted by the contractor each month on or before the date fixed by the Engineer-in-charge for all work executed in the previous, month and the Engineer-in-charge shall take or cause to be taken the, requisite measurement for the purpose of having the same verified and the claim, so far as it is admissible, shall be adjusted, if possible, within ten days from the presentation of-the bill. If the contractor does not submit the bill within the time fixed as aforesaid, the Engineer-in-charge may depute a subordinate to measure up the side work in the presence of the contractor or his duly authorized agent whose counter signature to the measurement list shall be sufficient warrant, and the Engineer-in-charge may prepare a bill from such list which shall be binding on the contractor in all respects.

Clause 11- Bills to be on printed form: The contractor shall submit all bills on the printed forms to be had on application at the office of the Engineer-in-charge **alongwith PAN number and VAT number**. The charges to be made in the bills shall always be entered at the rates specified in the tender or in the case of any extra work ordered in pursuance of these conditions, and not mentioned or provided for in the tender, at the rates hereinafter provided for such work.

Clause 12 – Stores Supplied by University: If the specification or estimate of the work provides for the use of any special description of materials to be supplied from the store of the University store or if it required that the contractor shall use certain stores to be provided by the Engineer-in-charge (such material and stores and the prices to be charged therefore as hereinafter mentioned being so far as practicable for the convenience of the contractor but not so as in any way to control the meaning or effect of this contract specified in the schedule "B" or memorandum hereto annexed) the contractor shall be supplied with such materials and stores as may be required from time to time to be used by him for the purpose of the contract only, and the value of the full quantity of the materials and stores so supplied shall be set off or deducted from any sums then due, or thereafter to become due to the contractor under the contract, or otherwise or from the security deposit. All materials supplied to the contractor shall remain the absolute property of the University and shall on no account be removed from the site of the work, and shall at all times be open to inspection by the Engineer-in-charge. Any such materials unused and in perfectly good condition at the time of completion or determination of the contract shall be returned to the University stores, if the Engineer-in-charge so requires by a notice in writing given under his hand, but the contractor shall not be entitled to return any such materials except with consent of the Engineer-in-charge and he shall have no claim for compensation on account of any such material supplied to him as aforesaid but remaining unused by him or for any wastage in or damage to any such materials.

Clause 12 (A) - All stores of controlled materials such as cement, supplied to the contractor by University should be kept by the contractor under lock and key and will be accessible for inspection by the University's Jr. Engineer or his agent at all the times.

Clause 13 - Works 10 be executed in accordance with specifications drawings orders etc: The contractor shall execute the whole and every part of the work in the most substantial and workmanlike manner and both as regards materials, and every other respect in strict accordance with specifications. The contractor shall also confirm exactly, fully and faithfully to the designs, drawings and instructions in writing relating to the work signed by the Engineer-in-charge and lodged in his office and to which the contractor shall be entitled to have access for the purpose of inspection at such office, or on the site of the work during office hours. The contractor will be entitled to receive one sets of contract-drawing and working drawings as well as one certified copy of the accepted tender along with the work order free of cost. Further copies of the contract drawings and working drawing if required by him, shall be supplied at .the rate of Rs. 200/- per set of contract drawings and Rs. 501- per working and the same is to be paid to the Architect in the form of Cash/DD in advance along with requisite letter.

Clause 14 - Alteration in specification and designs not to invalidate contracts; Rates for works not entered in estimate or schedule of rates of the district: The Engineer-in-charge under the directives of the Building & works Committee shall have power to make any alternation, or addition to original specifications, designs and instructions that may appear to him to be necessary or advisable during the progress of the work, and the contractor shall be bound to carry out the work in accordance with any instructions in this connection which may be given to him in writing signed by the Engineer-in-charge and such alteration shall not invalidate the contract, and any additional work which the contractor may be directed to do in the manner above specified as part of the work shall be carried out by the contractor on the same conditions in all respects on which he agreed to do the main work, and at the same rates as are specified in the tender for the main work. And if the additional and altered work includes any class of work for which no rate is specified in this contract, then such class of work shall be carried out at the rates as extra item. **This extra item rate will be paid at the percentage above/below at which tender is accepted on the basis of current D.S.R. rate.** If the additional or altered work, for which no rate is entered in the Schedule of rates of the Division, as ordered to be carried out before the rates are agreed upon then the contractor shall, within seven days of the date of receipt by him of the order to carry out the work inform the University the rate which it is his intention to charge for such class of work, and if the University does not agree to this rate the University shall by notice in writing be at liberty to cancel the order to carry out such class of work and arrange to carry out in such manner as it may consider advisable, provided always that if the contractor shall commence work or incur any expenditure in regard thereto before the rates shall have been determined as lastly hereinbefore mentioned, then in such case he shall only be entitled to be paid in respect of the work carried out or expenditure incurred by him prior to the date of the determination of the rate as aforesaid according to such rate or rates as shall be fixed by the University.

Extension of time in consequence of additions or alterations: The time limit for the completion of the work shall be extended in the proportion that the increase in its cost of the occasioned by alterations or additions bears to the cost of the original contract work, and the certificate of the Engineer-in-charge as to such proportion shall be conclusive.

Clause 15 - No claim to any payment or compensation for alteration in or restriction of work:

1) If at any time after the execution of the contract documents the Engineer-in-charge shall for any reason whatsoever (other than default on the part of the contractor for which the

University is entitled to rescind the contract) desires that the whole or any part of the work specified in the tender should be or restriction of suspended for any period or that the whole or part of the work should not be carried out at all he shall give to the contractor a notice in writing of such desire and upon the receipt of such notice the contractor shall forthwith suspend or stop the work wholly or in part required, after having due regard to the appropriate stage at which the work should be stopped or suspended so as not to cause any damage or injury to the work already done or endanger the safety thereof provided that the decision of the Engineer-in-charge as to the stage at which the work or any part of it could be or could have been safely stopped or suspended shall be final and conclusive against the contractor. The contractor shall have no claim to any payment or compensation whatsoever by reason of or in pursuance of any notice as aforesaid, on account of any suspension, stoppage or curtailment except to the extent specified hereinafter.

2) Where the total suspension of work ordered as aforesaid continued for a continuous period exceeding 90 days the contractor shall be at liberty to withdraw from the contractual obligations under, the contract so far as it pertains to the unexecuted part to the work by giving a 10 days' prior notice in writing to the Registrar, within 30 days of the expiry of the said period of 90 days, of such intention and requiring the Engineer-in-charge to record the final measurements of the work already done and to pay final bill. Upon giving such notice the contractor shall be deemed to have discharged from his obligation to complete the remaining unexecuted work under his contract. On receipt of such notice the Engineer-in-charge shall proceed to complete the measurement and make such payment as may be finally due to the contractor with a period of 90 days from the receipt of such notice in respect of the work already done by' the contractor. Such payment shall not in any manner prejudice the right of contractor to any further compensation under the remaining provision of this clause.

3) Where the University required the contractor to suspend the work for period in excess of 30 days at any time or 60 days in the aggregate, the contractor shall be entitled to apply the University within 30 days of the resumption of work after such suspension for payment of compensation to the extent of pecuniary loss suffered by him in the respect of working machinery rendered ideal on the site or on the account of his having and to pay the salary of wages of labour engaged by him during the said period of suspension, provided always that the contractors shall not be entitled to any claim in respect of any such working machinery, salary or wages for the first 30 days whether consecutive or in the aggregate of such, suspension or in respect of any suspension whatsoever occasioned by unsatisfactory work or any other default on his part. The decision of the University in this regard 'shall be final and conclusive against the contractor.

4) No claim to compensation on account of loss due to delay in supply of materials by the University: In the event of -

- i) Any total stoppage of work on notice from the Engineer-in- charge under sub-clause (1) in that behalf,
- ii) Withdrawal by the contractor from the contractual obligation to complete the remaining unexecuted work under sub-clause (2) on account of continued suspension of work for a period exceeding 90 days.
- iii) Curtailment in the quantity of item or items originally tendered on account of any alteration, omission or substitutions in the specifications, drawings designs, or instructions under clause 14 (1) where such curtailment exceeds 25% in quantity and the value of the quantity curtailed beyond 25 percent at the rates for the item specified

in the tender ~s more than Rs. 5000/-,

No Claim to compensation on account of loss due to delay in supply of materials by the university:

It shall be open to the contractor, within 90 days from the service of (i) the notice of stoppage of work on (ii) the notice of withdrawal from the contractual obligations under the contract on account of the continued suspension of work or (iii) notice under clause 14 (1) resulting in such curtailment to produce to the University satisfactory documentary evidence that he had purchased or agreed to purchase material for use in the contracted work, before receipt by him of the notice of stoppage, suspension or curtailment and require the University to take over on payment such material at the rates determined by the University provided, however, such rates shall in no case exceed the rates at which the same was acquired by the contractor. The University shall thereafter take over the material so offered, provided the quantities offered are not in excess of the requirements of the unexecuted work as specified in the accepted tender and are of quality and specifications approved.

Clause 15 (A) – No Claim to compensation on account of loss due to delay in supply of materials by the University: The Contractor shall not be entitled to claim any compensation from the University for the loss suffered by him on account of delay by university in the supply of materials entered in Schedule A where such delay is caused by-

- i) Difficulties relating to the supply of railway wagons
- ii) Force majeure
- iii) Act of God
- iv) Act of enemies of the State or any reasonable cause beyond the control of University.

In the case of such delay in the supply of materials, University shall grant such extension of time for the completion of the works as shall appear to the University Jr. Engineer to be reasonable in accordance with the circumstances of the case. The decision of the University Jr. Engineer as to the extension of time shall be accepted as final by the contractor.

Clause 16 – Time for Unforeseen claims: Under no circumstances whatever shall the contractor be entitled to any compensation from the university on any account unless the contractor shall have submitted a claim in writing to the Engineer-in-charge within one month of the causes of such claim occurring.

Clause 17 - Action and compensation payable in case of bad work: If any time before the security deposit is refunded to the contractor, it shall appear to the Engineer-in-charge or his subordinate in charge of the work, that any work has been executed with unsound, imperfect or unskillful 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 a quality inferior to that contracted for, or are otherwise not in accordance with the contract it shall be lawful for the Engineer-in-charge 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 inadvertently passed certified and paid for the contractor shall be bound forthwith to rectify, or remove and reconstruct the work so specified in whole or in part as the case may require, or if so required shall remove the materials or articles so specified and provide other proper and suitable materials or articles at his own charge and cost, and in the event of his failing to do so within a period to be specified by the Engineer-in-charge in the written intimation

aforesaid, the contractor shall be liable to pay compensation at the rate of one per cent on the amount of the estimate for every day not exceeding ten days during which the failure so continues and in the case of any such failure the Engineer-in-charge 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 respect of the contractor. Should the Engineer-in-charge consider that any such inferior work or materials as described above may be accepted or made use of it shall be within the discretion of the University as recommended by the University Jr. Engineer to accept the same at such reduced rates as may be fixed therefore.

Clause 18 - Works to be open to inspection, Contractor or responsible agent to be present: All works under or in course of execution or executed in pursuance of the contract shall at all times be open to inspection and supervision of the Engineer-in-charge and his subordinates and the contractor shall at all times during the usual working hours and at other times at which reasonable notice of the intention of the Engineer-in-charge and his subordinate to visit the work shall have been given to the contractor, either himself be present to receive orders and instructions or have a responsible agent duly accredited in writing present for that purpose. Orders given to the contractor's duly authorized agent shall be considered to have the same force and effect as if they had been given to the contractor himself.

Clause 19 - Notice to be given before work is covered up: The contractor shall give not less than five days notice in writing to the Engineer-in-charge or his subordinate in charge of the work before covering up or otherwise placing beyond the reach of measurement any work in order that the same may be measured and correct dimensions thereof taken before the same is so covered up or place beyond the reach of measurement any work without the consent in writing of the Engineer-in-charge or his subordinate in charge of the work and if any work shall be covered up or placed beyond the reach of measurement without such notice having been given or consent obtained the same shall be uncovered at the contractors expense, and in default thereof no payment or allowance shall be made for such work or for the materials with which the same was executed.

Clause 20 - Contractor liable for damage done and for imperfections for Four month after certificate:-If during the period ~~Twelve months/year~~ from the date of completion as certified by the Engineer-in-charge pursuant to clause 7 of the contractor or-----..... months after commissioning the work, whichever is earlier in the opinion of the University Jr., Engineer the said work is defective in any manner whatsoever, the contractor shall forthwith on receipt of notice in that behalf from the University Jr. Engineer duly commence execution and completely carry out at his cost in every respect all the work that may be necessary for rectifying & setting right the defects specified therein strictly in accordance with and in the manner prescribed and under the supervision of the Jr. Engineer. In the event of the contractor failing or neglecting to commence execution of the said rectification work within the period prescribed therefore in the said notice and/or to complete the same as aforesaid as required by the said notice, the Jr. Engineer get the same executed and carried out departmentally or by any other agency at the risk on account and at the cost of the contractor. The contractor shall forthwith on demand pay to the University the amount of such costs, charges and expenses sustained or incurred by the University of which the certificate of the Jr. Engineer shall be final and binding on the contractor. Such costs, charges and expenses shall be deemed to be arrears of land revenue and in the event of the contractor failing or neglecting to pay the same on demand as aforesaid without prejudice to any other rights and remedies of the University the same may be recovered from the contractor as arrears of land revenue. The University shall also be entitled, to deduct the same from any

amount which may then be a payable or which may thereafter become payable by the University to the contractor either in respect of the said work or any other work whatsoever or from the amount of the security deposit.

Clause 21- Contractor to supply plant ladders, scaffoldings etc.: The contractor shall supply at his own cost all material (except such special materials, if any, as may, in accordance with the contract, be supplied from the University stores). Plant, tools, appliances, implements, ladders, cordage, tackle scaffolding and temporary works requisite or proper for the proper execution of the work, whether, in the original altered or substituted form, and whether included in the specification or other documents forming part of the contract or referred to in these conditions or not and which may be necessary for the purpose of satisfying or complying with the requirements of the Engineer-in-charge as to any matter as to which under these conditions he is entitled to be satisfied or which he is entitled to require together with the carriage therefore to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and materials necessary for the purpose of meeting out works and counting, weighting and assisting in the measurement or examination at any time and from time to time of the work or the materials, failing which the same may be provided by the Engineer-in-charge at the expense of the contractor and the expenses may be deducted from any money due to the contractor under the contract or from his security deposit or the proceeds of sale thereof or of a sufficient portion thereof. The contractor shall provide all necessary fencing and lights required to protect the public from accident, and shall also be bound to bear the expense or defense of every suit, action or other legal proceeding, that may be brought by any person for injury sustained owing to neglect of the above precautions. and to pay any damages and costs which may be awarded in any such suit, action or proceedings to any such person, or which may with the consent of the contractor be paid for comprising any claim by any such person.

Clause 21A - And is liable for damages arising from non-provisions of lights, fencing etc.: The contractor shall provide suitable scaffolds and working platforms gangways and stairways and shall comply with 'the following regulations in connection therewith.

- a) Suitable scaffolds shall be provided for workmen for all works that cannot be safely done from a ladder or by other means.
- b) A scaffold shall not be constructed taken down or substantially altered except-
 - i) under the supervision of a competent and responsible person; and
 - ii) as far as possible by competent workers possessing adequate experience in this kind of work.
- c) All scaffolds and appliances connected therewith and ladders shall-
 - i) Be of sound material.
 - ii) be of adequate strength having regard to the loads and strains to which they will be subjected, and
 - iii) be maintained in proper condition.
- d) Scaffolds shall be so constructed that no part there of can be displaced in consequence of normal use.
- e)) Scaffolds shall not be over-loaded and so far as practicable the load shall be evenly distributed.
- f) Before installing lifting gear on scaffolds special precautions shall be taken to ensure the strength and stability of the scaffolds.
- g) Scaffolds shall be periodically inspected by a competent person.
- h) Before allowing a scaffold to be used by his workmen the contractor shall whether the scaffold has been erected by his workmen or not, take steps to ensure that it

- complies fully with the regulations herein specified.
- i) (i) Working platform, gangway, stairways shall be so constructed that no part thereof can sag unduly or unequally. (ii) be so constructed and maintained having regard to the prevailing conditions as to reduce as far as practicable risks of persons tripping or slipping, and
 - j) In the case of working platform, gangways, working place and stairways at a height exceeding 2 meters (To be specified).
 - i) every working platform and every gangway shall be closely boarded unless other adequate measures are taken to ensure safety.
 - ii) every working platform and gangway shall have adequate width and
 - iii) every working platform, gangway, working place and stairway shall suitably fenced.
 - k) Every opening in the floor of a building or in a working platform shall, except for the time and to the extent required to allow the excess of persons or the transport or shifting of material, be provided with suitable means .to prevent the fall of persons or material.
 - l) When persona are employed on a roof where there is a danger of falling from a height exceeding 2 mt. suitable precautions shall be taken to prevent the fall of persons or material, (to be prescribed).
 - m) Suitable precautions shall be taken to prevent persons being struck by articles, which might fall from scaffolds or other working places.
 - n) Safe means of access shall be provided to all working platforms and other working places.
 - o) The contractors (s) will have to make payments to the labourers as per Minimum Wages Act.

Clause 21 B: The contractor shall comply with the following regulations as regards the Hoisting Appliances to be used by him:

- a) Hoisting machines and tackle, including their attachments, anchorages and supports shall-
 - i.) be for good mechanical construction, sound material and adequate strength and free from patent defect; and
 - ii.) be kept in good repair and in good working order
- b) Every rope used in hoisting or lowering materials or as a means of suspension shall be of suitable quality and adequate strength and free from patent defect.
- c) Hoisting machines and tackle shall be examined and adequately tested after Erection on the site and before, use and be re-examined in position at intervals to be prescribed by the University.
- d) Every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering materials or as a means of suspension shall be periodically examined.
- e) Every crane driver or hoisting appliance operator shall be properly qualified.
- f) No person who is below the age of 14 years shall be in control of any

hoisting machine including any scaffold which, or give signals to the operator.

- g) In the case of every hoisting machine and of every chain, ring, hook, shackle, swivel and pulley block used in hoisting or lowering or as a means of suspension, the safe working load shall be ascertained by adequate means.
- h) Every hoisting machine and all gear referred to in preceding regulation shall be plainly marked with the safe working load.
- i) In the case of a hoisting machine having a variable safe working load each safe working load and the conditions under which it is applicable shall be clearly indicated.
- j) No part of any hoisting machine or of any gear referred to. in regulation , 7 above shall be loaded beyond the safe working load except for the purpose of testing.
- k) Motors, gearing, transmissions, electric wiring and other dangerous parts of hoisting appliances shall be provided with efficient safeguards.
- l) Adequate precautions shall be taken to reduce to a minimum the risk of any part of a suspended load becoming accidentally displaced.

Clause 22 - The contractor shall not set fire to any standing jungle, trees, brushwood or grass without a written permit from the University Jr. Engineer.

When such permit is given, and also in all cases when destroying cut or dug up trees, brushwood, grass etc. by fire, the contractor shall take necessary measures to prevent such fire spreading to or otherwise damaging surrounding property.

The contractor shall make his own arrangements for drinking water for the labour employed by him.

Clause 23 - Liability of contractor for any damage done in or outside work area: Compensation for all damages done intentionally or un-intentionally by contractor's labour whether in or beyond the limits of the University property including any damage caused by the spreading of fire mentioned in clause 22 shall be estimated by the Engineer-in-charge or such other officer as he- may appoint and the estimates of the Engineer-in-charge subject to the decision .of the University on appeal shall be final and the contractor shall be bound to pay the amount of the assessed compensation on demand, failing which, the same will be recovered from the contractor as damages in the manner prescribed in clause 1 or deducted by ,the Engineer-in-charge from any sums that may be due or become due from the University to contractor under this contract of otherwise.

Clause 24 - The contractor shall bear the expenses of defending any action or other legal proceedings that may be brought by any persons for injury sustained by him owing to neglect of precautions to prevent the spread of fire and he shall pay any damages and cost that may be awarded by the court in consequence.

Clause 25 - Work in Holiday: No work shall be done on a holiday without the sanction in writing of the Engineer-in-charge.

Clause 26 - Work not to be sublet & Contract may rescinded and security deposit forfeited for subletting it without approval or for bribing a public officer or if contractor becomes insolvent: The contract shall not be assigned or sublet without the

written approval of the Engineer-in-charge. And if the contractor shall assign or sublet his contract, or attempt so to do, or become insolvent or commence any proceedings to get himself adjudicated and insolvent or make any composition with his creditors or attempt so to do or if bribe, gratuity, gift, loan, perquisite reward or advantage pecuniary or otherwise, shall either directly or indirectly be given, promised, or offered by the contractor or any of his servants or agents to any public officer or person in the employ of the University in any way relating to his office or employment, or if any such officer or person shall become in any way directly or indirectly interested in the contract, the Engineer-in-charge may thereupon recommend to the Registrar, and then Registrar by notice in writing contractor rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of the University & the same consequences shall ensue as if the contract had been rescinded under Clause 3 hereof and in addition the contractor shall not be entitled to recover or be paid for any work therefore actually performed under the contract.

Clause 27 - Sum payable by way of compensation to be considered at reasonable compensation without reference to actual loss: All sums payable by a contractor by way of compensation under any of these conditions shall be considered as a reasonable compensation to be applied to the use of the University without reference to the actual loss or damage sustained, and whether any damage has or has not been sustained

Clause 28 - Changes in the constitution of firm to be notified: In the case of tender by partners, any change in the constitution of a firm shall be forthwith notified by the contractor to the University for Information.

Clause 29- works to be under direction of university Engineer: All works to be executed under the contract shall be executed under the direction and subject to the approval in all respects of the University Jr. Engineer for the time being, who shall be entitled to direct at what point or points and in what manner they are to be commenced, and from time to time carried on.

Clause 30- Division of University Junior Engineer to be final: Except where otherwise specified in the contract and subject to the powers delegated to him by University the decision of the University. Jr. Engineer for the time being shall be final, conclusive, and binding on all parties of the contract upon all questions relating to the meaning of the specifications, designs, drawings, and instructions herein before mentioned and as to the quality of workmanship, or materials used on the work, or as to any other question, claim, right, matter, or thing whatsoever, in any way arising out of, or relating to the contract, designs, drawings, specifications, estimates, instructions, orders, or these conditions, or otherwise concerning the works, or the execution, or failure to execute the same, whether arising during the progress of the work, or after the completion or abandonment thereof.

Clause 31-Lump sums in estimate: When the estimate on which a tender is made includes lump sums in respect of parts of the work, the contractor shall be entitled to payment in respect of the items of work involved or the part of the work in question at the same rates as are payable under this contract for each item, or if the part of the work in question .Is not in the opinion of the Engineer-in-charge capable of measurement, the Engineer-In-charge may at his discretion pay the lump sum amount entered in the estimate, and the certificate in-writing of the Engineer-in-charge shall be final and conclusive against the contractor with the regard to any sum or sums payable to him under the provisions of this clause.

Clause 32 - Action where no specification: In the case of any class of work for which there

is no such specification as is mentioned in Rule I such work shall be carried out in accordance with specifications, and in the event of there being no specification, then in such case the work shall be carried out in all respects in accordance with all instructions and requirements of the Engineer-in-charge.

Clause 33 – Definition of work: The expression ‘works’ or ‘work’ where used in these conditions, shall unless there be something in the subject or context repugnant to such construction, be construed to mean the work or works contracted to be executed under or in virtue of the contract, whether temporary or permanent and whether original, altered, substituted or additional.

Clause 34 – Quarry Fees and Royalties: All quarry fees, royalties and ground rent for stacking materials, if any, should be paid by the contractor.

Clause 35 – Compensation under workmen’s Compensation Act. The contractor shall be responsible for and shall pay any compensation to his workmen payable under the Workmen's Compensation Act. 1923 (VIII of 1923), (hereinafter called the said Act) for injuries caused to the workmen. If such compensation is payable and if paid by University as principal under sub-section (I) of Section 12 of the said Act on behalf of the contractor, it shall be recoverable by University from the contractor under sub-section (2) of the said section. Such Compensation shall be recovered in the manner laid down in Clause 1 above.

Clause 36 A- The contractor shall be responsible for and shall pay the expenses of providing medical aid to any workman who may suffer a bodily injury as a result of an accident. If such expenses are incurred by University the same shall be recoverable from the contractor forthwith and be deducted without prejudice to any other remedy of University from any amount due or that may become due to the contractor.

Clause 36 B - The contractor shall provide all necessary personal safety equipment and first aid apparatus available for the use of the persons employed on the site and shall maintain the same in condition suitable for immediate use at any time and shall comply with the following regulations in connection therewith.

- a) The workers shall required to use the equipment so provided by the contractor and the contractor shall take adequate care to ensure proper use of the equipment by those concerned.
- b) When work is carried on in proximity to any place where there is a risk of drowning all necessary equipment shall be provided and kept ready for use and all necessary steps shall be taken for the prompt rescue of any person in danger.
- c) Adequate provision shall be made for prompt first aid treatment of all injuries likely to be sustained during the course of the work.

Clause 37 - Claim for quantities entered in the tender or estimate: Quantities shown in the tender are approximate and no claim shall be entertained for quantities of work executed being either more or less than those entered in tender or estimate.

~~Quantities in respect of the several items shown in the tender are approximate and no revision in the tendered rate shall be permitted in respect of any of the items so long as, subject to any special provision contained in the specifications prescribing a different percentage of permissible variation the quantity of the item does not exceed the tender~~

~~quantity by more than 25 percent, and so long as the value of the excess quantity beyond this limit at the rate of the item specified in the tender, is not more than Rs. 5,000/-~~

~~"The contractor shall, if ordered in writing by the Engineer so to do, also carry out any quantities in excess of the limit mentioned in sub clause (1) hereof on the same conditions as and in accordance with the specifications in the tender and at the rates - i) derived from the rates entered in the current schedule of rates and in the absence of such rates, ii) at the rate prevailing in the market, the said rates being increased or decreased as the case may be by the percentage which the total tendered amount bears to the estimated cost of the work as put to tender based upon the schedule of rates applicable to the year in which the tenders were invited (for the purpose of operation of this clause, *this cost shall be taken to be Rs. in words*)~~

~~Claims arising out of reduction in the tendered quantity of any item beyond 25 per cent will be governed by the provision of clause 15 only when the amount of such reduction beyond 25 per cent at the rate of the item specified in the tender is more than Rs. 5,000/-~~

Clause 38 - Employment of famine labour etc.: The contractor shall employ any famine, convict or other labour of a particular kind or class if ordered in writing to do so by the University.

Clause 39 - Claim for compensation No compensation shall be allowed for any delay caused in starting the work: No compensation shall be allowed for any delay caused in the starting of the work on account of acquisition of land or, in the case of clearance works, on account of any delay in according sanction to estimates.

Clause 40 - Claim for compensation for delay in execution of work: No compensation shall be allowed for any delay in the execution of the work on account of water, standing in borrow pits or compartments. The rates are inclusive for hard or cracked soil, excavation in mud, sub-soil, water standing in borrow pits and no claim for an extra rate shall be entertained unless otherwise expressly specified.

Clause 41 - Entering upon or commencing any portion of work: The contractor shall not enter upon or commence any portion of work except with the written authority and instructions of the Engineer-in-charge or of his subordinate in charge of the work. Failing such authority the contractor shall have no claim to ask for measurements of or payment for work.

Clause 42 - Minimum age of persons employed the employment of donkeys and/ or other animals' and the payment of fair wages:

- (i) No contractor shall employ any person who is under the age of 14 years.
- (ii) No contractor shall employ donkeys or other animals with breeching of string of thin rope. The breeching must be at least three inches wide and should be of tape (Nawar)
- (iii) No animal suffering from sores, lameness of emaciation or which is immature shall be employed on the work.
- (iv) The Engineer-in-charge or his assistant is authorized to remove from the work; any person or an animal found working which does not satisfy these conditions and no responsibility should be accepted by University for any delay in the completion of the work by such removal.
- (v) The contractor shall pay fair and reasonable Wages to the workmen employed by him, in the contract undertaken by him in the event of any dispute arising

between the contractor and his workmen on the grounds that the wages paid are not fair and reasonable, the dispute shall be referred without delay to the Registrar who shall decide the same. The decision of the Registrar shall be conclusive and binding on the contractor but such decision shall not in any way effect the conditions in the contract regarding the payment to be made by University at sanctioned tender rates.

- (vi) Contractor shall provide drinking water facilities to the workers. Similar amenities shall be provided to the workers engaged, on large work in urban areas.

Clause 43 - Method of Payment: Payment to contractors shall be made by cheque.

Clause 44 - Acceptance of conditions compulsory before tendering for work: A contractor who does not accept these conditions shall not be allowed to tender for works.

Clause 45: The price quoted by the contractors shall not in any case exceed the control price, .if any fixed by Government or reasonable price which it is permissible for him to charge a private purchaser for the same class and description, the controlled price or the price permissible under Hoarding and Profiteering Ordinance, 1948 as amended from time to time If the price quoted exceeds the controlled price permissible under Hording and Profiteering Prevention Ordinance, the contractor will specifically mention this fact in his tender along with the reasons for quoting such higher prices. The purchaser at his discretion will in such case exercise the right of revising the price at any stage so as to confirm with the controlled price on the permissible under the Hoarding and Profiteering Prevention Ordinance. This discretion will be exercised without prejudice to any other action that may be taken against the contractor.

Clause 46: The rates to be quoted by the contractor must be inclusive of Sales Tax & any other taxes. No extra payment on this 'account will be made to the contractor.

The contractor/s shall not,

- a. cancel his / their GST registration without completion of work entrusted to him/them by the University.
- b. Contractor/s shall not continue collection of GST from University if his / their GST registration is cancelled by them, which is an offence. Under such a circumstances University shall initiate appropriate legal action.
- c. In case if contractor's GST registration is cancelled for non-filling of GST returns, the Shivaji University, Kolhapur will not be responsible for consequences to be faced and all responsibility will be left to the concern contractor. In case if any financial burden outcomes, the same will be recovered from the contractor who will be liable to pay compensation amounting to the whole of his security deposit and the liability of the contractor for past and future compensation shall remain unaffected. In the event of the Registrar taking action under sub-clause (a) or (c) of clause 3, University may, if it so desires, take possession of all or any tools, plant, materials and stores, in or upon the works or the site thereof or belonging to the contractor, or procured by him and intended be used for the execution of the work or any part thereof, paying or allowing for the same in account at the contract rates, or in the case, of contract rates, not being applicable at current market rates, to be certified by the University Jr. Engineer whose certificate thereof shall be final. In the alternative, the Registrar may after giving notice in writing to the contractor or his clerk of the work, foreman or other authorized

- agent require him to remove such tools, plant, materials, or stores from the premises within a time to be specified in such notice and in the event of the contractor failing to comply with any such requisition, the Registrar may remove them at the contractor's expense or sell them by auction or private sale on account of the contractor and at his risk in all respects, and the certificate of the University Jr. Engineer as to the expense of any such removal and the amount of the proceeds and expense of any such sale shall be final and conclusive against the contractor
- d. If the GST related financial recovery is not met in "c" above University shall initiate appropriate legal action and recover the due amount.
 - e. In case if it is found that, excess GST is collected by the contractor from the University then University will recover the excess collected GST amount from the defaulting contractor with interest and will also initiate appropriate action for black listing such contractors who have knowingly collected GST despite of not having active GSTIN.

Clause 47: In case of materials that may remain surplus with the contractor from those issued for tile work contracted. for, the date of ascertainment of the materials being surplus will be taken as the date of sale for the purpose of sales tax and the sales tax will be recovered on such sale.

Clause 48: Wages to the skilled and unskilled labourers engaged by the contractor.

The contractor shall pay the labourers skilled and unskilled according to the wages prescribed by the Minimum Wages Act applicable to the area in which the work of he contractor is in progress.

Clause 49: All amounts whatsoever which the contractor is liable to pay to the University in connection with the execution of the work including the amount payable in respect of (i) materials and/or stores supplied/issued hereunder by the University to the contractor (ii) hire charges in respect of heavy plant, machinery and equipment given on hire, by the University to the contractor for execution by him of the work and/or on which advances have been given by the University to the contractor shall be deemed to be arrears and the University may without prejudice to any other rights and remedies of the University recover the same from the contractor as arrears.

Clause 50: The successful tenders will be required to produce to the satisfaction of the specified concerned authority a valid and consequent license issued in favour under the provisions of the contract labour (Regulation and Abolition Act, 1970) before starting the work. On failure to do so, the acceptance of the tender should be liable to be withdrawn and also earnest money.

Clause 51: No any price escalation on rates is permitted & not paid.

Cause 52 - The secured advance for the material brought at site will be paid up to 75% of the value for the bonafide use on the works against an "Indenture for secured advances". This value will be calculated based on the tendered rates for which the above materials are to be used or the market rates whichever is lower, as assessed by University Engineer. The said advance will be recovered in next running bill.

Clause 53 – No any change should be made in the tender document by Contractor. If it is found such incident in later stage, the E.M.D. and S.D. of Contractor will be forfeited and action as per University decision will be taken.

Clause 54 - As per Govt. Resolution No. भासन् परिपत्रक क्र.सीएटी / 2017 / प्र.क्र. 08 / इमा-2 दि.26 / 11 / 2018 - After opening of Financial offer if the L-1 tenderer has quoted the offer below the estimated cost put to tender, the L-1 tenderer shall have to submit Additional Performance Security within Eight days (including Government holidays) from the acceptance of offer in the form of FDR/Bank guarantee of any Nationalized or Scheduled Bank infavour of the Finance and Account Officer, Shivaji University, Kolhapur, payable at Kolhapur.

In case the L-1 tenderer does not submit Additional Performance Security within specified time limit, his offer will be rejected. If the L-1 tenderer has quoted below the estimated rates, the Additional Performance Security shall be paid additionally as mentioned in Govt. Resolution भासन् परिपत्रक क्र.सीएटी / 2017 / प्र.क्र.08 / इमा-2 दि.26 / 11 / 2018. The additional performance security shall be returned immediately upon satisfactory completion of work, the certificate of which shall be issued by concered architect / consultant / University Jr. Engineer before releasing the additional security.

Clause 55 - The contractor have to quote the rates considering applicable G.S.T. burden as per महाराष्ट्र भासन्, वित्त विभाग, भासन् परिपत्रक क्र. जीएसटी 1017 / प्र.क्र. 81 / कराधान-1, मंत्रालय, मुंबई - 400 032 दिनांक 19 / 08 / 2017.

Clause 56 - As per Govt. Resolution No. भासन् परिपत्रक क्र.संकीर्ण-2018 / प्र.क्र.47 / विमा प्र ासन् दि.13 / 7 / 22 Clause 56 - CONDITIONS RELATING TO INSURANCE OF CONTRACT WORK.

The Contractor shall take out necessary Insurance Policy / Policies (viz. Contractor's All Risks Insurance Policy, Erection All Risks Insurance Policy etc. as decided by the Directorate of Insurance) so as to provide adequate insurance cover for execution of the awarded contract work for total contract value and complete contract period COMPULSORILY from the "Directorate of Insurance, Maharashtra State, Mumbai" only. Its postal address for Correspondence is "264, MHADA, First Floor, Opposite Kalanagar, Bandra (East), Mumbai-400051." (Telephone Nos. 022- 265 90 403 / 265 90 690 and Fax No. is 022-265 92 461 / 265 90 690). Similarly all workmen's appointed to complete the contract work are required to insure under the workmens compensation insurance policy. University shall reimburse insurance policy / premium amount with ceiling at the rate of 0.5% or 1% cost to tender (as case may be for amount below or above Rs.25.00 lakhs) against the policy of Director of Insurance, Maharashtra State, Mumbai. Insurance policy /policies taken out from any other company will not be accepted. If any contractor has not taken out the insurance policy from the "Director of Insurnace, Maharashtra State Mumbai" or has effected insurance with any insurance company, the same will not be accepted and 0.50% or 1.00% of the tender amount will be recovered directly (as case may be for amount below or above Rs.25.00 lakhs) from

the amount payable to the contractor from the 1st R.A. bill for the executed contract work and paid to the Directorate of Insurance fund, Maharashtra State Mumbai. The director of insurance reserves the right to distribute the risks of Insurance among the other insurers.

If completion period of work is extended then period of labour insurance must be renewed / extended as per requirement.

If contractor fails to produce the Labour Insurance Policy and if any mishap happens after the issue of the work order, it shall be the sole responsibility of the concerned contractor.

Clause 57 – Building and other construction workers welfare cess – As per Government of Maharashtra, Industry, Energy and Labour Department G.R. No. BLA 2009/Pra.Kra.108/Kamgar - 7 A, dt. 17/06/2010 and Public Works Department, Circular No. BDG-2010//Pra.Kra.277/ Building – 2, dt.28/09/2010, Building and other Construction Workers Welfare Cess at one percent or at the rates amended from time to time as intimated by the competent authority under Building and Other Constructions Worker Welfare Act 1996 will be deducted from the Bill amount, whether measured bill, advance payment or secured advance.

(Government in P.W.Deptt. letter (in marathi) No. Misc/10 1091 Pra.Kra.2771 BWg. 2, Mantralaya, Mumbai – 32 dated 17/08/2010)

Contractor

University Engineer

SCHEDULE (A)

Statement showing (Approximately) the materials to be supplied from the University Stores for work contracted to be executed and the rates at which they are to be charged for

| No. | Particulars | Unit | Rate at which the materials will be charged to the contractor Rs. | Place of delivery |
|-----|-------------|---|---|--------------------------------|
| 1 | Cement | Per Metric Ton. (Empty cement bags are not to be returned) | | The University store on campus |
| 2 | | As University will not supply any material | it is not applicable | |

Note: The person or firm submitting the tender should see that the rates in above set are filled up by the University Junior Engineer on the issue of the form prior submission of the tender.

(Signature of Contractor)

Signature of University Engineer

SCHEDULE (B)

| Item No. | Description of Item | Quantities | Rate Rs. In words & figures | Unit Per | Amount Rs. |
|----------|---------------------|------------|-----------------------------|----------|---------------|
|----------|---------------------|------------|-----------------------------|----------|---------------|

As per enclosed sheets No. 28 to

Note 1: All work shall be carried out as per public works Department Handbook and other specifications, as directed and also as per standard specification book.

Note 2: All the columns in the schedule 'B' should be filled in ink, and the total of the entries in the last column should be struck by the contractor under his signatures.

Note 3: Rates quoted include clearance of site (prior to Commencement of work and at it close) in all respects and held good for work under all conditions site, moisture weather, etc.

(Contractor)

University Engineer

PROPOSED CONSTRUCTION OF- Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building.

General Note on Schedule 'B'

1. The contractor is required to examine carefully' drawings of Tender, Tender notice, Draft Articles of Agreement, Conditions of Contract and specifications including appendices before pricing in the quantities set out in the, schedule 'B'

1. The rates quoted by the contractor for in the schedule of quantities shall include for supplying all materials and labour necessary for completing the work in the best and conditions of contract, for the erection and removal at completion of the work of all necessary scaffolding, shed, water, office of clerk of works with fittings latring for the use of work people etc., for providing all water for the work in consultation with the employees including payment of charge for the same, for all fencing required to enclose the site to ,prevent people trespassing for all boarding, mats, clothes etc., to exclude dirt and dust and for all, other purposes required by the University Jr. Engineer for carting away all debris and rubbish; for leaving the premises in a clear and satisfactory state on completion and for working in conjunction with attending all other contractors employed on the building.

2 Other agencies will be working in the building during construction and general contractors must allow these contractors the use of scaffolding, water and render them general assistance. No addition to the completion time will be allowed unless special delay caused by other agencies shown. The general contractor must make good all holes in the building, necessary to be

made by the Electrician, Sanitary and Water Supply Contractor and will submit' their charges to the firm responsible. The decision of the University Junior Engineer regarding this shall be final and binding on the contractors.

~~3. Water required for the building construction will be made available to the contractors free of cost from the wells and tanks on the University site and the contractor will have to make their own arrangements for taking it to the actual work site at his cost.~~

4. All work shall be measured net as structural size and the rates quoted by the contractor shall include for all curing, waste, breakage etc. and also finishing and the construction of the structure should be as per specified' structural size.

5. The employer reserves the right to purchase any material required for the construction. The contractor will be paid for only labour and any other sundry materials in connection with the particular item or items.

6.The rates for excavation shall include for all bailing & pumping out water found necessary for the execution of the work and adequate arrangements, shall be made by the contractor to keep the foundation trenches and excavations dry after the un-watering process while the masonry or concrete work in progress & till the concrete is set as certified by the University Jr. Engineer. The Contractor will make his own arrangement for the necessary

plant such as pump, engines, and all other machinery and materials required in' this connection.

7. The rates for all painting, brick and stone masonry and plaster works shall include for watering the same for fifteen days, after placing in position concrete shall be cured for twenty one days.

8. All provisional sums, provisional items and contingencies included in the schedule of quantities shall be deducted in the whole or in part if not expended by the orders in writing by the University Jr. Engineer.

9. The work on first floor always means the work, both on the first floor and terrace of first floor.

10. All Taxes on material of any kind should be borne by the contractor at his cost and no compensation will be paid by the University.

(Contractor)

University Engineer

SHIVAJI UNIVERSITY, KOLHAPUR.

SPECIFICATIONS

MATERIAL AND WORKMAN-SHIP-GENERAL

**Note* - The Word Architect shall mean the University Engineer.

1. **Materials and Samples of material:** The whole of the materials used in the work shall be new and of the best quality of their respective kinds and they shall be used in the best, most workmanlike and most substantial manner to the complete satisfaction of the Architects.

No materials shall be worked, set or used in any manner until the same has been approved by the architect or his representative. It shall be in the power of the architect or his representative to judge the quality of materials used or proposed to be used in the works or elsewhere and to reject the whole or any part thereof, whether in or out of the works, which he may consider inferior, improper or unfit for use.

No work shall be covered up until the Architect or his representative shall have' given directions to that effect.

The Architect on personal inspection shall be entitled to reject work, which, in his opinion, is not in accordance with the Specification of description in the Bills of Quantities or which is otherwise unsatisfactory, and the Contractor, at his own expense, shall replace the rejected work, even though the clerk of works or other representatives of the Architect may have failed previously to disapprove of such work.

2. The Contractor shall deposit at the office of the Architect for his approval samples of the materials proposed to be used in the works, and the bulk shall be equal in every respect to the approved samples deposited.
3. **Samples of Workmanship:** The Contractor at his own expense shall prepare, samples of all joinery, cornice, parapets, mouldings, enrichments, etc., and shall obtain the approval of the Architect to the same' before putting the work in hand. If so required by the Architect the Contractor at his own, expenses shall prepare the same and submit a second sample of each individual item of work

If the Architect requires more than two samples to be made of any individual item of work, the Contractor shall prepare the same and shall be paid the actual cost, of preparing the third and any subsequent sample of such individual item

The Contractor shall carryout the work strictly in accordance with the approved samples.

4. **Tests:** Every part of the work and all the materials to be used therein shall be subject to such tests from time to time during the execution of the works as the Architect may direct, and the whole of such tests shall in all cases be made at the contractors sole expense.
5. **Skilful work people to be employed:** The Contractor shall employ only experienced, competent skilful workpeople to do the work and whenever the Architect shall inform him in writing that any man on the work, is in his opinion, unsatisfactory, or incompetent, or dishonest or untruthful or disorderly or otherwise unsuitable, such man shall be discharged from the work and shall not again be employed on it.
6. **Water:** The Contractor shall provide to the satisfaction of the Architect a proper and sufficient supply of clean Water for all purposes connected with the works, construct all necessary temporary service, with pipes taps, stopcocks tank, etc., and he shall remove same on completion of the work.

The water used in the work shall be perfectly clean, free from salt, vegetable matter and direct of any kind. No water shall be taken from any place which in the opinion of the Architect is likely to be contaminated with sewage or other impurity. If so required by the Architect, the Contractor at his own expense shall have sample of water-examined by the Chemical Examiner to Government and shall submit that official's report to the Architect. If the Chemical Examiner's report on the water is unfavorable, the water shall not be used on the works.

The Contractor shall bear all charges in connection with the supply of the water required for the work.

7. **Sand etc. at site:** Sand, gravel or other material obtained on the site shall be used only by the special permission of the Architect. Such permission shall be obtained by the Contractor in writing before such material is used in the works and its agreed value shall be deducted from the amounts due to the contractor.
8. **Depositing debris on site:** Whenever it is stated in the Bills of Quantities of schedule that debris shall deposited on the, the rates quoted by the contractor shall include for making all required excavations for receiving or covering the debris within the site limits of the site, for neatly spreading the debris and for covering same with earth to the depth of at least 4 inches.

If so ordered by the Architect, the Contractor shall deposit and spread debris to form the foundations of roads, drives, paths, floor, etc. In such cases, the Contractor shall be entitled to payment only for consolidating the debris used for such foundations.

9. **Casting up:** The Contractor at his own expenses shall board up all wood, stone, brick and other work liable to injury and shall remove such casing when required or on completion of the work. He shall thoroughly clean down the whole of the stonework etc., and make good any damage defects.

10. **Protecting floors:** The Contractor at his own expense, shall keep all floors covered with a good layer of sand or shall otherwise protect them to the satisfactions of the Architect and shall clean away same when necessary and shall make good all damage and leave them clean and perfect.

11. **Existing Drives etc.:** From the commencement of the contract until the work is handed over finally, the Contractor at his own expense shall maintain to the satisfaction of the Architect all private roads, drives, paths, cart roads, etc, over which traffic passes in connection with the works

Upon completion of the work, the Contractor at his own expense shall provide all necessary materials and shall make good all damage consequent upon the execution of the work and shall leave such private roads, etc., in good order to the satisfaction of the Architect.

12. **Reinstating compound:** The Contractor at his own expense, shall reinstate to the satisfaction of the Architect all parts of the compound disturbed 'by the building operations.

13. **Cleaning on Completion:** On completion of the work, the Contractor shall at his own expense, Cleaning on remove all surplus materials, debris and rubbish of every description from the buildings, and site of the land shall find a place of depositing for same. He shall remove all paint and whitewash stains, rub all floors, paving, etc., and shall leave everything clean, water-tight, and perfect and deliver up the buildings fit for occupation.

MORTARS

1. **Lime:** The lime used on the works shall be the best Canker lime brought from the approved quarry and shall be made from well-burnt limestone, which shall first be carefully freed, from earth and other impurities before burning. The lime shall be delivered at the site of the mortar mill as early as possible after it has been drawn free from the kilns and shall be free from ashes, or un-burnt material, dust, clay and other impurities. If so ordered by the Architect, the lime shall be slaked at the site of the works in the presence of the Architect or his representative. Burning of limestone should be done on site

2. The lime shall be stored in a rainproof shed with an impervious floor until required for use.

The slaked lime shall be screened through a sieve of 256 meshes to the square inch, and all the materials that will not pass through the sieve shall be rejected.

Lime, which has perished, shall be removed at once from the site.

3. **Surki:** Surki shall be made by grinding or pounding freshly burnt, but not over burnt or under burnt brickbats and shall be free from foreign matter such as dust, sand and ashes, etc.

The surki shall be screened through a sieve with 100 meshes to the square inch and all material that will not pass through the sieve, shall be rejected.

4. **Portland Cement:** The cement shall be stored in barrels or bags on the site on a platform not less than 1'-00" above ground level in building affording adequate protection against the weather and moisture from any source; stacks to be kept covered with tarpaulins

5. **Sand:** The sand to be used for mortar, ordinary concrete, brickwork, etc., shall be clean sharp river or pit sand and shall be free from clay, loam dust and organic matter. River sand or pit sand shall be washed by the Contractor at his own expense if so ordered by the Architect.

Sand for mortar shall be screened to pass a sieve having 64 meshes to the square inch, but it shall not be too mealy or fine.

For reinforced concrete the sand shall be clean, sharp, river or pit sand and free from clay loam dust and all organic matter. The sand shall be mixture of coarse and fine grains from 1/8 gauge downwards. The sand shall be screened through a sieve having 64 meshes per square inch and shall be washed before use.

Sand for reinforced concrete, plaster and pointing shall be river sand or pit sand complying with the provision of the preceding clauses.

6. **Mixing Mortars:** The Contractor at his own expense shall provided approved gauge boxes and platform for the gauging and mixing of mortar.

The ingredients shall be properly measured and shall be thoroughly mixed in a dry condition by turning them over not less than twice with spades. The mixture (except for cement mortar) shall then be ground in an approved mortar mill each filling of the mill shall receive not less than 60 turns of the grindstone or more if necessary to give the required consistency to the satisfaction of the Architect. For large works the grinding shall be carried out by machinery.

Mortar shall not be allowed to dry but shall be kept filled with water. No mortar, which has become dirty, shall be used.

7. **Lime mortar:** Lime mortar, unless otherwise specified or ordered shall consist of one part of slaked lime and two parts of sand by volume. The grinding of the lime mortar in specified proportion shall be done in mortar mills by mechanically or electrically driven appliances.

8. **Lime Surki mortar:** Lime surki mortar, unless otherwise specified or ordered shall consist of one part of fresh slaked lime, 1/2 part of surki and 1.1/2 parts sand by volume. This mortar shall be prepared from time to time in such quantities as will ensure that no

mortar remains unused for more than 12 hours. On no account shall this mortar be used after it has begun to set even if that is within 12 hours or other shorter period

All work constructed with surki mortar shall be kept wet by constantly watering for seven days.

- 9. Cement mortar:** Cement mortar unless otherwise specified or ordered shall consist of Cement one part of cement and 4 parts of sand. Only sufficient mortar shall be mixed as is required for immediate use any, which has become partly set, shall not be used. The cement and sand shall be properly measured on approved platform and shall be thoroughly mixed in their dry condition by turning them over not less then 3 times with spades. Sufficient clean water shall then be added through a hose until the mortar is of the proper consistency and the mixture shall be worked together by being again turned over twice.

All work constructed with cement mortar shall be kept wet by constantly watering for seven days.

EXCAVATOR

- 1. Excavation:** The Contractor shall form the whole of the excavations in such situations and such sites as shall be directed by the Architect.
- 2. Vegetable earth:** The Contractor shall remove the whole of the vegetable earth form the area of the site of the proposed building and unless otherwise ordered by the Architect shall deposit same where directed on the Site for reuse.
- 3. Old foundations trees etc.:** The Contractor shall dig up and remove old foundations; rock boulders, plants, roots of trees and other materials liable to decay whether wholly or partly under new work and such other as the Architect shall direct. White ant nest shall be thoroughly dug out and destroyed and the hole flooded with boiling hot water containing a solution of Arsenic and the hole filled in with concrete.
- 4. Excavations:** The excavations shall be made to the depths, widths and inclinations shown on the drawing or as shall be required from time to time by the Architect Where excavations are required from time to time by the Architect Where excavations are required to different levels they shall be made in horizontal steps.

The Contractor shall not excavate trenches with side slopes, but, at his own expense, shall properly protect the sides shoring and strutting sufficient to enable the work being carried out everywhere to the dimensions shown on the drawings or given in the specification or Bills of Quantities. The bottoms of trenches shall be leveled with boning rods to .the levels shown on the drawings or such other level as the Architect may direct.

- 5. Spoil:** The Contractor before proceeding with the excavation, shall carefully take up and lay aside in heaps on site clear of the site of the works and in positions where ordinary

traffic will not be interfered with; and so as not to become intermixed with other matter, all the paving, pitching, metalling or other hard surfaces or crust of street roads, paths, field or places each class of material being kept separate.

6. **Slips and fails:** Every precaution shall be taken against slips and fails of earth clay, sand or other materials in the excavations, but in the event of any occurring the Contractor, at his own expense shall remove the surplus materials arising there from and at his cost he shall make good the space caused by such slips, or fails which may be outside the dimensions of the work ordered. The Architect shall determine in such case whether such space is to be filled up in whole or in part with concrete brickwork or masonry of the quality used in the adjoining work and if part only is to be so filled with materials are to be used for the remaining part. If in the opinion of the Architect there is a possibility of the newly constructed work having been damaged or disturbed by such collapse, the work shall be laid bare at the expense of the Contractor. Any damage shall be made good by the Contractor at his own expense.
7. **Bad ground:** Should the bottom of any excavation appear to the soft, unsound, or unsuitable the Contractor shall report the matter to the Architects and if the Architect so directs shall excavate the same until a hard or solid foundations is reached or to such depth as the Architect shall direct and such extra depth shall be filled up with concrete or other such material as the Architect shall direct. Such extra excavations and filling shall be valued and paid for as authorized.
8. **Rock:** If boulders are encountered in the excavation, they shall be removed and the space, which they occupied, shall be filled as specified in the Clause "Slips and Falls".

If rock is encountered in the excavation it shall be benched in uniform steps to the satisfaction of the Architect and each step shall be horizontal in level. Before Benching rock the Contractor shall make certain that it is of sufficient depth for the benching to be formed.

All cracks or fissures in rock shall be prepared and filled in with cement concrete (2/4" gauge stone jelly aggregate) or such other materials as shall be ordered by the Architect.

9. **Excavation too deep.:** If excavation is taken out by the Contractor to too great a depth for any reason whatsoever, he shall fill it up at his own expense to the proper level with brickwork or concrete as in the cases of slips and falls. No payment shall be made for excavation taken out to too great depth.
10. **Excavated material for filing in:** The Contractor without the consent in writing of the Architect shall not sell remove or Permit to be removed from the works any sand or earth or other excavated materials which may be suitable and required for refilling to sides of foundations or for filling under floors or for any other purposes directed by the Architect.
11. **Removal of surplus excavation:** The Contractor at his own expense shall remove and find a place to deposit all surplus excavated materials which is not required by the Architect but the Architect shall have the right to remove, without consent and free of all claims on the part of the contractor, any portion of the excavated material. If the Architect

exercises this right and by so doing an insufficient quantity of excavated material remains for refilling the trenches the Architect, shall cause such suitable material to be returned to the site of such removal, as may be necessary to make up the deficiency.

12. **Measuring excavation:** The quantities of excavation in the Bills of Quantities are calculated from the bottom area of width as shown on the drawing with vertical sides to the trenches The dimensions are net, no allowance having been made for any increase in bulk after the earth has been excavated. The Contractor will be paid on the above basis irrespective of any side slopes and timbering he may adopt or find necessary to adopt during the work.
13. **Protection:** The Contractor at his own expense shall provide all necessary boards of coverings and lay same to protect the trenches of excavation from the effects of inclement weather.
14. **Ram foundations bed:** The Contractor at his own expense shall well water, ram and thoroughly consolidate the bottom of excavations before the construction of the foundations or other work is commenced.
15. **Inspection of foundation bed:** The contractor shall give notice to the Architect when excavation are ready to receive concrete of foundations bed shall be left bare until the Architect or his representative shall have given directions for the work to proceed with.
16. **Tenders not to be filled in until measurement taken.:** No trenches shall be filled in or concrete or footings covered up until the dimensions have been taken up by the Architect or his representative.
17. **Filling in Excavations:** After the Architect's permission to fill in has been obtained the excavations shall use or other refilled with the excavated materials or other materials ordered by the Architect in layer not exceeding 6'' in depth each layer shall be watered and rammed until it has become thoroughly consolidated; it shall be carefully placed and rammed so as not to cause any damage either to the materials or to interfere with the alignment or level. The Contractor at his own expense immediately upon the completion of each part of the work shall level the mound or heaps of earth which may have been raised or made and shall clear away all earth and rubbish which may have become superfluous or have been occasioned or made in the execution of the works.
18. **Filling to Basement:** When the brickwork has been built to basement level and the joints have properly set to the satisfaction of the Architect area inside the walls of the building shall be raised to the level of the underside of the floor with the excavated material or other material ordered by the Architect. The filling shall be done in layers not exceeding 6" in depth and each layer shall be well watered and thoroughly consolidated as specified in the proceeding clauses.

19. **Sand or filling:** Sand to be used for filling shall be clean river and pit sand-free from organic matter. The filling shall be done in layers not exceeding 6" in depth each layer shall be watered and consolidated as specified in clause "filling in Excavations".
20. **Reinstatement of surface:** The surface .of roads paths or ground shall be finished off to the proper levels with the same kind of material as the surface consisted of before the excavations were commenced. The contractor at his own expense shall make up any deficiency of material.
21. **Pits not to be dug:** The contractor without the permission in writing of the Architect shall not dig any pits or make-excavations other than those required under the Contract.
22. **Pumping:** The Contractor .at his own expense shall pump out or otherwise remove any and all water, which during the continuance of the contract may be found in the cuttings, Excavations, foundation, trenches or works and shall provide all dams pipes and drains, shoots pumps and other means necessary for neglect keeping the works clear of water during their progress. The Contractor at his own expense shall keep the whole of the works thoroughly drained and clear of water below the lowest level of any part of them so long as may be required by the Architect continuously day and night, brake out water by hand or by pumps and engines.

CONCRETE

1. **Aggregate:** Where broken stone is specified to be used for ordinary concrete it shall consist of hard trap stone approved by the Architect. Unless otherwise specified they shall be broken so as to be capable of passing in any direction through a ring of 1&1/2" diameter.

When broken bricks are specified. they shall be made by breaking only approved clean hard and well burnt brick free from all clay and dirt.

Before use all aggregate for concrete shall be screened to remove dirt and dust. The aggregate shall be washed by the contractor at his own expenses if so ordered by the Architect.

For reinforced concrete the aggregate shall be trap stone approved by the Architect. It shall be broken so as to be capable of passing in any direction through a ring 3/4"dia. The broken trap stone shall be screen through a 3/4"mesh sieve all pieces of stone which fail to pass through the screen shall be broken down. Care shall be taken that the broken stone is properly graded that is to say. it shall vary in size between the following limit not larger than 3/4" gauge not smaller than 1/4" gauge, in order that there may not be voids in the concrete.

For reinforced concrete the aggregate before the use shall be screened to remove dirt and dust and shall be washed.

2. **Mixing:** The aggregate and other ingredients whether in their dry-state or set in the form

of mortar shall be measured by volume in properly marked measures approved by the Architect. After the materials have been measured they shall be deposited on clean close jointed boards or upon a clean platform paved with bricks.

The cement and sand (for cement concrete) for the matrix shall then be thoroughly mixed in their dry condition.

For lime concrete and for lime surki concrete the material shall be prepared as specified for mortars of their respective kinds.

The aggregate shall be wetted and the mortar or dry mixture, as the case may be, shall then be spread over of the wetted aggregate, dry mixture if used, it shall be spread over the wetted aggregate and mixed dry by being turned over twice sufficient clean water shall then be added through a hose and mixed until it is of a proper consistency.

The concrete shall be used immediately after mixing; the machinery shall be to the approval of the Architect.

3. **Placing Concrete:** The concrete shall be laid in the work in layers not exceeding 6" in depth and shall be well worked and rammed. A sufficient number of rammers shall be provided and kept be use for ramming the concrete to the satisfaction of the Architect. Should the surface of any layer of concrete become set before the next layer is added, the surface shall be cleaned washed roughened and covered with mortar, similar to that in the concrete. The mass, when complete, shall be homogeneous, throughout.

Concrete shall not be tipped into the work from a greater height than 5 feet. Whenever the architect considers it necessary, the concrete shall be lowered in baskets to the level of the work and put in position so as to prevent the larger stones being separated from the finer materials.

The surface of the concrete shall be kept wetted in such manner and for such times as the Architect may direct. Any work injured through not being kept damp or from any other cause it shall be made good, at the contractors own cost.

Unless otherwise ordered by the Architect, concrete in foundations shall not be allowed to come in contact with the subsoil water for three days after it is laid pumping or boiling being employed, if necessary to keep the excavation dry during that period.

Dowel bars of 3/8" ϕ rods must be embedded between column and panel walls. These 3/8" ϕ roads must be at "6" ce all long the height of the column and wherever the panel wall abbotts the column. Wherever the panel walls com-flush with the columns at such places the chicken mesh lapping should be provided at the joints, with a lap length of 6" on the walls.

P. C. C. 1 : 2 : 4 concrete cylinders of 6" ϕ and 12" high should be prepared from batched

concrete for various R.C.C. works, as per standard specification and in standard approved moulds.

The cylinder must give a minimum strength of 2000 Lbs/square inches at 28 days age. The cost for conducting the tests would be borne by the contractors. Concrete test cube 6"X6X6" as per - IS-456 latest version should be cast and tested in approved laboratory as specified by the code or the university Engineer Architects. All testing charges should be born by the contractor.

4. **Lime concrete:** Unless otherwise specified *or* ordered by the Architect lime concrete shall be composed of 5 parts of aggregate and 2 parts of wet mortar, the mortar shall be prepared as herein before specified.
5. **Lime Surki Concrete:** Unless otherwise specified or ordered by the Architect lime surki concrete shall be composed of 5 parts of aggregate and 2 parts of wet mortar. The mortar shall be prepared as herein before specified.
6. **Ordinary Cement Concrete:** Unless otherwise specified or ordered by the Architect cement concrete shall consist of 6 parts of aggregate, 2 parts of sand and 1 pan of cement by measurement and shall be used immediately after mixing. It shall be mixed and laid in the work as herein specified.
7. **Concrete for reinforced Concrete:** The concrete shall be mixed in the proportion of 1 part of cement, 2 parts of sand and 4 parts of aggregate.

The volume of the cement shall be based on cement weighing 90 Lbs. per Cft. The sand broken stone shall be measured by volume in approved gauge boxes.

8. **Steel:** The steel shall consist of tor steel/Ribbles steel bars of 415 grade brought from approved manufactures and should have test reports along with every consignment. Testing of steel supplied to be carried out at site or at approved laboratory of the contractors cost as instructed by University Engineer/ Architects". The steel shall comply in all respects with the latest British Engineering, Standards Association's specification or I.S.I.'s Specification for structural steel for bridge and general building construction.

All steel for reinforcement shall be cleared of all scale, dust, and loose rust immediately before being placed in position. No welding shall permit. Where it is necessary to join two bars they shall overlay at least 45 diameters.

The reinforcement shall be carefully secured in position by binding them with GJ binding wires so as to obtain accurate spacing of the bars, so as to make them rigid, and to ensure that there is no displacement when depositing and ramming the concrete.

All reinforcement bars shall- have hooked ends.

The cover at the ends of bars. or other reinforcement shall not be less than 1½”.

The cover of any longitudinal bar in a beam shall not be less than 1 inch.

The cover of any bar or other reinforcement in a slab shall not be less than 1/2" and not less than the diameter of the bar to be covered.

When B.R.C. Fabric reinforcement is specified, the respective weight, mesh, sizes' of bars, tensile strength etc. shall be those given in the B.R.C. Co's hand book for the specified numbers of the fabric.

9. **Centering:** The terms 'Centering' or 'formwork' shall include all forms, moulds sheeting, planks, poles, posts, shores, struts and strutting, ties, uprights, walling and all other temporary supports to the concrete during the process of setting.

The contractor shall provide and erect all required formwork or centering and shall remove them.

An formwork or centering shall be made of timber or steel free from defects and shall be so framed and placed in position as to be practically watertight; it shall be constructed that the sides of beams may be removed first and thus allow the bottom of beams to be supported for a longer time. For beams the supporting strut shall be adjusted and fixed in position by suitable means and shall be placed on timber beams where necessary to prevent them from sinking into the grounds or causing injury to any finished work.

All portion of formwork or centering that will be contact with the concrete shall be casted with lime wash immediately before they are erected. All form work or centering shall be removed without shock or vibration.

The formwork or centering shall not be removed until the concrete is thoroughly set. The approval of the Architect shall be obtained before the removal of the formwork or centering and in no case shall any portion of it be removed until the expiration of eight days from the placing of the concrete. De shuttering should be carried out as per IS- 456 unless otherwise specified.

10. **Preparing:** Before any concreting is done all moulds and centering shall be carefully examined and the inside cleaned. The inside of the mould shall be wetted shortly before concreting is commenced in order to prevent the absorption of moisture from the concrete and to reduce the liability of adhesion between the concrete and the timber. The inside of the moulds may be treated with a coat of lime wash or suitable grease paint to obviate adhesion.

11. **Placing concrete in reinforced concrete work:** The concrete shall be placed in its final position before the initial set has taken place in layers not exceeding 3" in depth before consolidating.

As soon as possible after mixing, the concrete shall be carefully packed round the steel work, and shall be thoroughly rammed and consolidated in such a manner and under such conditions as will secure a compact mass without voids and of the greatest possible density for the proportions used. The greatest care shall be taken to prevent and displacement, or bending of bars ties links or stirrups. The concrete shall be mixed in Mechanical concrete mixture and contractor shall use vibrator for proper packing and consolidation of concrete.

Should the surface of any layer or section of the concrete become set before the next layer or section is added the surface which will be in contact with the next layer or section shall be cleaned, washed, roughened, and covered with cement mortar composed of 1 part of cement to 2 parts of sand. The mass when complete shall be homogeneous throughout. If it is found when the formwork is removed that the surfaces of the slabs, etc. are not perfect, they shall be made good by the Contractor; at his own expense with cement plaster composed of 1 part of cement 2 parts of sand.

12. **Protection of reinforced concrete:** The Contractor shall protect all reinforced concrete constructions from the sun's rays by a sufficient layers of straw sand etc.

The surface of the concrete of the concrete shall be kept wetted in such manner and for such time as the Architect may direct. In any case, the concrete shall be kept wet by constantly watering for at least 10 days after construction of the reinforced concrete work.

When R.C. construction is formed in a climate liable to frost, the Contractor shall adequately protect the construction from the effects of frost until cement is fully set.

Any work injured through not being kept wet or for other causes shall be made good by the Contractor at his own expense.

13. **Deflection:** The total deflection of beams of slabs freely supported and uniformly loaded and subject to the permissible working stresses shall not exceed one six hundred of span, when the span is twenty times the effective depth and shall be in proportion for other ratios of span to depth and for other' conditions of ends and stress and loading..
14. **Surfaces of reinforced concrete slabs:** The Contractor shall be responsible for forming the required concrete construction accurately to the required levels so that the surfaces are truly horizontal unless the Architect shall have specified that such construction is to be formed to a slope or slopes.
15. **Cracks:** If any cracks shall develop in the reinforced concrete construction which, in the opinion of the Architect are not detrimental to the Stability of the construction, the Contractor at his own expense shall grout the cracks carefully with neat cement grout also at his own expense and risk shall make good to the satisfaction of the Architect all other building works such as plaster, mouldings, surface finish of floors, roofs, ceilings, etc., which in the opinion of the Architect have suffered damage either in appearance or

stability owing to such cracks. The Architect's decision as to the extent of the liability of the Contractor in the above matter shall be final and binding.

BRICK LAYER

1. The bricks shall be of the best quality of their respective kinds with hard, smooth surfaces true and uniform in size and shape. The edges shall be straight and sharp, when one brick is struck against another, it shall produce ringing sound. The bricks shall be free from lime, excess sand, and all extraneous matter. They shall be hard tough well and thoroughly burnt free from cracks, twists, air-holes, stones, lumps, of any kind of other defects.

On no account shall the bricks be made from ground, which shows any trace of kankar or nodules of lime.

Only well matured clay free from all lumps shall be used.

The new brick shall be moulded of such size that the burnt brick shall have its length equal to twice its width plus the thickness of a mortar joint. i.e. 3/8".

Before commencing the work the Contractor shall deposit at the office of the Architect samples of the bricks he proposes to use for the work and shall obtain the approval of the Architect to the same. All bricks used in the works shall be of same quality as approved samples.

2. **Delivery:** Every care shall be used in loading and carting the bricks to preserve them from injury and chipping.
3. **Brickwork:** All bricks shall be immersed and kept under water and be thoroughly well soaked at least 12 hours before they are laid. At the end of each day or any other time when the progress of brickwork stops, ridges of mortar one inch high shall be made round the horizontal surface of all brickwork and the work must be then be carefully flooded one inch deep with water. Throughout the work every care shall be taken to avoid soiling the face of the brickwork with lime and cement.

The mortar joints in all bricks shall have a uniform thickness of as near 3/8" as the Architect shall deem reasonable but variation shall be carefully avoided.

Only first class bricklayers of mature age and experiences shall be employed and a proper supply of long straight edges, plumb bobs, lines and spirit levels shall be kept fully in use on the work.

All uneven irregular and bad brickwork shall be pulled out at the Contractors expense and be rebuilt with fresh brickwork.

The bond for all the brickwork except arch work shall be that known as 'English'. The bond in all brickwork shall be carefully preserved and worked to and no continuous straight vertical joints shall be permitted. All the walls shall be built up simultaneously

through their length so that raking back may be avoided as much as possible and all pipes, Farming and ironwork shall be built in at the right time during upward progress of the brickwork.

No bats shall be permitted to be used except where necessary for obtaining the dimensions of the different courses or for obtaining the specified bond.

All unfinished work shall be raked back in courses unless otherwise directed and when new work is to be joined to it the surface of the unfinished work shall be cleaned and thoroughly wetted.

The brick shall be laid in such manner that every joint is completely filled with mortar, whether at the top bottom, side or end of a brick. .

The joints of all surfaces which are not to be plastered shall be left fall and all exposed faces be neatly struck.

The finish work shall be true in line and level.

4. Where it is specified that external walls are to be pointed, they shall have the joints carefully raked out the brickwork thoroughly cleaned and well reddened with an approved pigment. The joints shall then be neatly and truly pointed, and sunk, cement mortar 1:3 being used for this purpose. This work shall be done in a thoroughly first class manner, and kept wet for seven days or as directed.

MASON

1. All stone shall be of the best quality of its respective kind, It shall be free from marl holes and all defects and shall be obtained from a quarry approved by the Architect.

Each stone shall be laid on its natural bed and shall be of the dimensions required by the Architect.

Cut stone shall be neatly worked to the requisite sections and forms shown on the drawing or described in the bills of quantities. It shall have fully dressed beds and joints with clear-cut arises.

Return and cross walls shall be bonded carefully to main walls.

The work shall be kept wet while in progress until the mortar is fully set.

At the end of each day's work & at any other time when progress of masonry is stopped ridges of mortar shall be made around the horizontal surfaces and the work shall be carefully flooded one inch deep with water. The flooding shall be repeated at frequent intervals until progress of the work is resumed.

Every care shall be taken to avoid soiling the faces of the masonry with mortar etc.

Care shall be taken see that all required holes for the passage of water or pipes are left and that all required wooden blocks and plugs are built in as the work proceeds.

2. **Centering:** Pattern Granite Stone facing work shall consist of Square or Rectangular

granite stones of approved quality 4" to 6" thick.

The stones shall be dressed true and square on all sides. Exposed face of Stone shall be three lines chisel dressed and Top, Bed and Vertical sides of stone, shall be sufficiently dressed to a width of at least 3' for proper bedding and so as to ensure a thin joint not exceeding 1/4" thick after the stones are set in mortar.

The stones shall be laid in layers of height 6" to 12" as required by the Architect, in cement mortar 1:6 with vertical joints staggered and joints shall be such cement pointed 1:3.

Through Bond Stones shall be provided (One for every 12' Sq. Ft. area on face) lapping full width of 9" thick brick necessary backing for effective bonding.

Sample of Granite stone three times dressed shall be submitted to the Architect for his approval prior to commencement of work.

3. **Stone Steps:** Stone Steps shall comply with all the requirements for ashier, which are applicable to stone steps.

The stones shall be of especially long lengths and of the required width and height in one piece and they shall be worked and set strictly in accordance with detailed drawings.

All exposed surfaces of stone steps shall be fully dressed and also shall be rubbed to give a smooth but not a slippery surface to the satisfaction of the Architect.

4. **Nosing:** The exposed edges of the trades of steps shall project 3/4" beyond the faces of the risers. Unless otherwise ordered by the Architect, they shall be nearly rounded to double bull nosed curves.

PAVIOR

1. **General:** The rates quoted by the contractor shall include for preparing the surfaces of concrete or other bed on which the paving materials is to be laid.
2. The floors of rooms, verandah, etc., shall be formed in the manner specified.

In the case of ground floors the surface shall be raised to the required level by Earth and murum placed in layers not exceeding 6" in depth. each layer shall be thoroughly well watered and rammed. On the surfaces prepared in the manner described above, the concrete shall be laid, well rammed and worked to a level surface.

3. **Leveling Course:** Leveling courses shall be formed of concrete composed in the proportions stated in the Bills of Quantities the surfaces shall be formed truly to the required. levels. The Contractor shall not be entitled to any extra payment on account of extra thickness of mortar required; to finish the surface of the floors at the required level.

4. **Floors with Marble Mosaic Tiles:** Marble Mosaic Tiles shall be of approved manufacture and shall conform to "Indian Standard Institutes" Specifications for the same.

Mosaic chips used on top of the tile shall be of the best quality Indian Marble approved by the Architect.

Marble Mosaic Tiles shall be $\frac{3}{4}$ " to 1" thick over all with a minimum of $\frac{3}{4}$ " thick marble chips on top, tiles to be Hydraulically pressed and cured.

Mosaic Tiles used on works shall conform to the sample tile to be shown to the Architect prior to use, and approved by him.

Marble Mosaic Tiles shall be laid even and true to required level on a bed of $\frac{3}{4}$ "thick lime mortar (1 :2) with a third coat of Cement slurry on top.

After the Lime Mortar bed has sufficiently set, the mosaic tiles shall be polished on top by use of polishing machine (Run on Electric current of Petrol driven). "The Marble Mosaic Tiles shall be Machine polished with one run of initial or rough grinding, to runs of smooth grinding on top and a final coat of Acid polishing on top.

The joints between tiles shall be coated with a thin coat of colored cement to conform with the specified color of tile.

Electric current required for running the polishing machine, will be supplied at site by the Employer, but at only one point on site and Contractor has to pay the charges as per University rules.

5. **Granolithic Floors:** Granolithic paving shall be $1\frac{1}{2}$ " thick composed of 1 part cement 1 part sand and 3 parts of washed granite chipping $\frac{3}{4}$ " gauge and free from dust. . The stone chipping shall be screened through a $\frac{1}{4}$ " mesh sieve; all pieces of stone that fail to pass through the sieve shall be broken down. Care shall be taken that the chippings are properly graded that is to say, there shall be sufficient proportion of chippings less than $\frac{1}{4}$ " gauge to eliminate voids in the concrete.

Before the Granolithic paving is laid the leveling shall be saturated with water the granolithic paving shall be laid $1\frac{1}{2}$ " thick in alternate bays of about 10 to 15 Feet Square.

Wooden screens $1\frac{1}{2}$ " in depth and long straight edges shall be employed to ensure a smooth even surface. The concrete shall be worked to the required levels with steel floats or trowels before the cement has commenced to set. While the surface is being worked it shall be sprinkled with neat cement so as to have a perfect surface. .

When the surface of each bay of the Granolithic paving has been completed, it shall be covered with a layer of sand and shall be kept wet to the satisfaction of the Architect for eight days.

CARPENTER & JOINER

Woodwork:

All wood work shall be sound, well seasoned timber free from cracks; knots, shakes worm holes and all other defects.

The Architect shall reject any timber, which does not appear to him to be thoroughly satisfactory.

Unless otherwise specified the timber shall be Best quality Indian Teak.

All workmanship shall be of the very best description and air joints shall fit accurately without wedging or filling.

Boarding and planking shall be supplied with perfectly straight and square edges or rebated and ploughed and tongued or doweled, as may be directed by the Architect.

No woodwork shall be placed in position until approved by the Architect. In measuring timber wrought and put up a tolerance of 1/8." shall be allowed either way over the sizes mentioned in the bills of quantities for planning etc.

No timberwork shall be painted without the previous permission of the Architect and if so painted without his permission the contractor at his own expense shall remove completely the paint, if so required by the Architect.

The parts of woodwork to be hidden by masonry of concrete shall be painted two oil and lead paint, as directed by the Architect.

Samples of doors, windows, ventilators, ornamental carved boards, moulding etc. shall be submitted to the Architect before the bulk of the work is put in hand.

Joinery: All joinery shall be of best description and quality and shall be made in exact accordance with the detail drawings. The various members of the doors, windows, ventilators and wood-work shall be cut planed, sand-papered and wrought smooth and shall be accurately skillfully and strongly jointed, tenoned, mortised and fitted together. All finished woodwork shall be of the full sizes and thickness specified. No woodwork shall be fixed until it has been approved by the Architect.

All external doors and windows shall be made to open outwards.

No stiles are required to internal doorframes unless specially ordered.

The heads and stiles of doors shall be out off flush with the outside of the jambs.

All door and window frames shall be, secured with Steel Clamps 2'0" X ½ " ¼ " at about 3'0" vertical intervals built into the center of the adjoining wall in cement mortar (1:3). Each clamp, shall be fastened to the frame with at least 3 strong screws not less than 2' long each. The Contractor's rates for the joinery shall include for these clamps and screws and for building in cement mortar.

“Everest” Asbestos cement gutters & Down pipes:

All these fittings shall conform to standard specification. The pipes and fitting shall be fixed with straps or clamps in accordance with the recommendations of the Architect.

Joining of the pipes shall be done with neat cement whilst, for the gutters, "Everest" plastic jointing Compound with Asbestos rope shall be used (Full details with drawings in this connection are available on application from the manufacturers).

PLASTER

1. **Preparing surface:** The rates quoted by the Contractor for plastering shall include, for watering and preparing the surface to the satisfaction of the Architects. Immediately prior to the application of the plaster the joints of the brickwork shall be raked out to a depth of at least ¾ " and the surface cleaned down and thoroughly saturated with water before the plastering is commenced.
2. **Projection:** The rates quoted by the Contractor for plastering shall include for all extra labour and materials in forming plain, raised or sunk band courses architraves and skirting not exceeding 1" in projection or in sinking.
3. **Cement Plaster:** Cement plaster shall be of the same composition as cement mortar unless otherwise ordered or specified.

Cement mortar plaster shall, be laid on in a single coat of somewhat more than the required thickness and shall be leveled with a flat wooden straight edge and smoothed with proper trowels to the precise thickness ordered.

The plastering shall be kept, thoroughly wet to the satisfaction of the Architect for seven days from the date it is laid.

4. **Samples of Mouldings:** The Contractor at his own expense shall prepare samples of all mouldings, etc., strictly in accordance with the detail drawings and instructions of the Architect before putting the work in hand.

If so required by the Architect the Contractor at his own expense shall prepare a second sample of any moulding etc.

If the Architect should require more than three samples of anyone mouldings, etc., to be made; the Contractor shall prepare same and shall be paid the actual cost of preparing the third and any subsequent samples of such mouldings, etc.

The Contractor shall carry out the mouldings, etc., strictly in accordance with the approved samples.

5. **Damp-Proof Course:** The damp proof course shall be formed in the positions and at the levels' shown on the drawing and as required by the Architect. The damp proof course shall be continuous and vertical stops shall be formed in same, if and where required. Unless otherwise specified the damp proof course shall be formed of cement mortar prepared in the proportions of 1 part approved Portland cement with the addition of 5% by weight of waterproof powder to 2 parts of river or pit sand.

The damp proof course shall be thick and shall be put on in one layer, which shall be kept wet for at least 7 days after it has been formed.

PAINTER & DECORATORS

1. The whole of the brickwork, stone work, wood iron, etc. and all surfaces that are intended to be either painted, colour washed or distempered or white washed are to be thoroughly scraped, cleaned down knotted, stopped, smoothed, down with pumice stones well washed down with soda water, then with clear water, prepared in the best and most careful manner so as to ensure sound and good work and the very best appearance.

In the cut of ironwork or steel work, the surfaces to be painted shall be thoroughly cleaned and freed from all scale, rust and all by chipping wall with scaling hammers, scraping with steel scrappers, wire brushing and final dusting with a sofa brush.

No paint or colour-wash or distemper or white-wash shall be applied until the prepared surface has been inspected and approved by the Architect.

2. **'Term Paint':** Where the term 'paint' or 'painting' or to be painted or 'colour wash' or 'whitewash' etc., is used in the specification of Bills of Quantities it includes scraping, cleaning down preparing, as specified in the proceeding clause and painting or colour-washing or distempering or Whitewashing as the case may be to the satisfaction of the Architect.
3. **Paint Brushes:** Proper Paint-brushes or English Pattern shall be used.
4. **Samples of Paint Polishing etc.:** The Contractor at his own expense shall prepare and submit to the Architect for approval samples of all Paintings, wood-coling, French polishing, wax polishing, varnishing etc. If any sample is not approved by the Architect, the contractor at his own expense shall prepare and submit a further sample or samples. The work shall be carried out strictly in accordance with the approved sample.
5. **Priming:** All woodwork shall be primed before it is fixed in position and before the stopping of Nah holes and other equalities are done.

The priming coat for work that is to be painted with oil and lead paint shall consist of white lead mixed with a small proportion of red lead and the proper of double boiled linseed.

The priming coat for work that is to be painted with special paints such as paripal shall consist of the particular 'Undercoating' recommended by the makers of each such special paint.

6. **Painting:** Painting shall be done in three coats, unless otherwise ordered by the Architect.

Each coat shall be carefully rubbed down with pumice stone or sand paper and well dusted before the next coat is laid on.

The second and any subsequent coats shall not be applied until the Architect has inspected and approved the previous coat.

The whole of the painting shall be carried out in colours approved by the architect.

Method of Measurement: The doors and windows shall be measured inclusive of frames unless otherwise stated clear masonry openings will be measured for cupboards irrespective of the position of the frames. Opening will be deducted in full for masonry plaster and pointing. For plaster and pointing, jambs will be taken into account.

Plaster finishing: The rate for cement plaster either with neeru finishing or finishing coat of (1:3) shall remain the same.

Providing wooden pegs in the wall: 2"X2"X2" T.W. blocks pegs should be provided in masonry wherever directed, either during or after completion of the masonry work.

APPENDIX

1. All the rates to be common to all the storeys.
2. One coat of primer; shall be applied in addition to the number of coats specified for distemper or white wash or oil paint work. The tender rates rates for painting shall be deemed to be inclusive of this work.
3. For all cement concrete work where (1:2:4) mixture is intended proportion of (1:2½:3½) shall be used. The coarse aggregate in this work shall consist of two parts of 3/4" to 1/4 " metal and one part of 1/2 " to 1/4 " metal. Concrete for all the main portions of the work shall be machine mixed unless otherwise specified. When hand mixing is to be done the ingredients shall be measured in pharas as directed and cement measured per bag, mixed dry and then wet so as to form thoroughly mixed concrete.
4. The contractor shall burn quick lime on site and slake it there. He shall grind lime on site approved by the University Engineer. The mortar ingredients shall be measured in pharas as directed, mixed dry and then put and ground in the ghani.
5. Finishing means smooth plaster 1/2 " to 3/4 " thick with initial coat of cement mortar (1:4) and final coat of cement mortar (1:3) or neeru finishing as directed/required.

6. All the concrete and masonry and other rates are inclusive of provision of holes for drainage, water supply, electricity, gas pipes etc. add closing them afterwards; No deductions will made for such holes.
7. The enclosed Appendix shall form a part of the conditions of contract.
8. The rate for C.C. 1:2:4 for slab work and chajjas shall be inclusive of immediate finishing as directed and required.
9. The glasses for steel windows and doors shall be fixed with suitable T.W. beeding as directed.
10. The edges of all the corner stones of masonry with R. R. facing or Khandaki facing to be of tine chisel dressed as directed.

Contractor

University Engineer

SHIVAJI UNIVERSITY, KOLHAPUR

Name of Work: Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building.

Conditions for the above work are as under

1. Quantities put "to" schedule 'B' are approximate and contractor will have to execute the excesses or less quantity at the same approved rates.
 2. Time limit for the entire work is **only One month** which will be counted from the date of receipt of work order.
 3. The penalty as per tender clause no 2 will be charged on contractor if the work is not completed within the prescribed time limit and the said amount is not refundable.
 4. 5% amount of the bills will be with held by the University as security deposit and the same will be refunded after the guarantee period of (defects) liability period, or 3 months from the date of final bill payment, whichever is later.
 5. Water required will be supplied at one spot only on University site. Contractor will have to convey and store it at his cost. Contractor has to fix up the meter & he has to pay as per University rules subject to availability of source otherwise the contractor has to make his own arrangement.
 6. All machinery men and material required for this work will have to be arranged by the contractor at his cost.
 7. The work should be executed as per plans and design and direction of the University Engineer.
 8. Specifications will be as per P. W. D. Vol. I & II when ever not mentioned in items of works.
 9. The decision of the Building & works Committee will be final and binding on the contractor.
 10. Any damages if made to existing structure by the contractor while working will have to be made good as original at his cost.
 11. All the material to be used in works should be got approved by the University Jr. Engineer before using and rejected material should be removed from work site immediately.
 12. Site should be cleaned after the work is completed.
 13. Electric current required will be supplied at one spot only. The contractor has to fix the electric meter at his own cost & required to pay the charges as per University rules.
- I / we agree with all above conditions of contract and the same are binding on me /us.

University Engineer

Contractor Signature

Date: -

Date:-

Address

SHIVAJI UNIVERSITY, KOLHAPUR
CIVIL / ELECTRICAL ENGINEERING DEPARTMENT

Name of Work: Providing & Fixing Proflex Sheet roofing for Construction of new labs for Scientific equipment under PM-Usha at the USIC building.

Schedule B

| Sr. No. | Description | Quantity | Rate | Unit | Amount |
|---------|--|----------|--------|------|----------|
| 1 | Removing G.I. or A.C. sheet roofing including purlins, principal rafters etc. includings or ting service able and unserviceable materials, stacking the same as and where directed in the compound including scaffolding. (Dismantling the existing G.I. or A.C. sheet carefully and shifting / transporting it to the designated location within the Ladies Hostel premises, as directed by the Engineer in charge, including all necessary labor, tools,equipment, and incidental works complet.) etc complete. RATE=89+5%C.C.=93.45 | 420.00 | 93.45 | SQ.M | 39249.00 |
| 2 | Removing doors and windows with frames and stacking the materials as directed with all leads, lifts etc. complete. RATE=156+5%C.C.=163.8 | 50.00 | 163.80 | NOS | 8190.00 |
| 3 | Dismantling stone masonry in lime or cement mortar including stacking the materils as directed with all leads,lifts etc. RATE=380+5%C.C.+1%=402.99 | 43.41 | 402.99 | CUM | 17494.40 |

| | | | | | |
|---|---|-------|---------|-----|-----------|
| 4 | <p>Removing and lowering the roof truss carefully without damaging the members and stacking as and where directed in the compound including scaffolding (Dismantling the existing truss carefully and shifting / transporting it to the designated location within the Ladies Hostel premises, as directed by the Engineer in charge, including all necessary labor, tools,equipment, and incidental works complet.) etc complete. RATE=774+5%C.C.=812.7</p> | 20.00 | 812.70 | NUM | 16254.00 |
| 5 | <p>Providing uncoursed rubble masonry of trap/granite/quartzite/gneiss stone since cement mortar 1:6 in superstructure including racking out joints when plastering is to be done/ striking joints when no plastering is to be done on inside watering and scaffolding etc. complete. RATE=5736+5%C.C.+1%L.C=6080.16</p> | 38.95 | 6080.16 | CUM | 236834.39 |
| 6 | <p>Providing first class Burnt Brick masonry with conventional/ I.S. type bricks in cemen tmortar 1:6 in plinth including bailing out water manually, striking joints on unexposed faces, pointing with cement mortar 1:3 on exposed face and watering etc. Complete. RATE =7993+5%C.C.+1% L.C.=8476.57</p> | 10.55 | 8476.57 | CUM | 89428.66 |

| | | | | | |
|---|---|-------|----------|-----|-----------|
| 7 | <p>Providing and laying Cast in situ/Ready Mix cement concrete M-30 of trap /granite/quartzite/ gneiss metal for R.C.C. beams and lintels as per detailed designs and drawings or as directed including steel centering, formwork, cover blocks, laying/pumping, compaction and roughening the surface if special finish is to be provided and curing etc. complete. (Excluding reinforcement and structural steel).with fully automatic micro processor based PLC with SCADA enabled reversible Drum Type mixer/ concrete Batch mix plant (Pan mixer) etc. complete. With fine aggregate(Crushed sand VSI Grade) RATE =12867+5%+1%L.C=13639.02</p> | 23.82 | 13639.02 | CUM | 324881.46 |
| 8 | <p>Providing and fixing in position TMT - FE - 500 bar reinforcement of various diameters for R.C.C. pile caps, footings, foundations, slabs, beams columns, canopies, staircase, newels, chajjas, lintels, arches, copings, fins, arches etc. as per detailed designs, drawings and schedules. binding with wires or tack welding and supporting as required complete. RATE=87114+5%=91469.7</p> | 0.90 | 91469.70 | MT | 82243.15 |

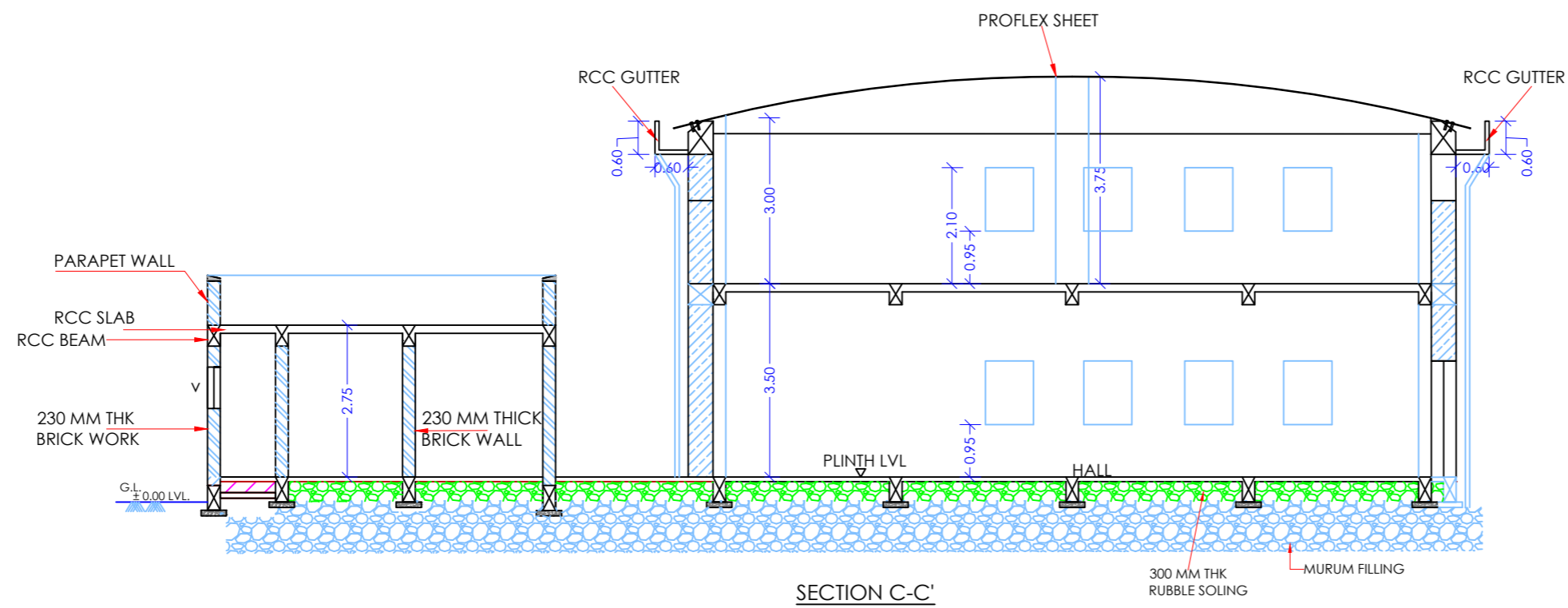
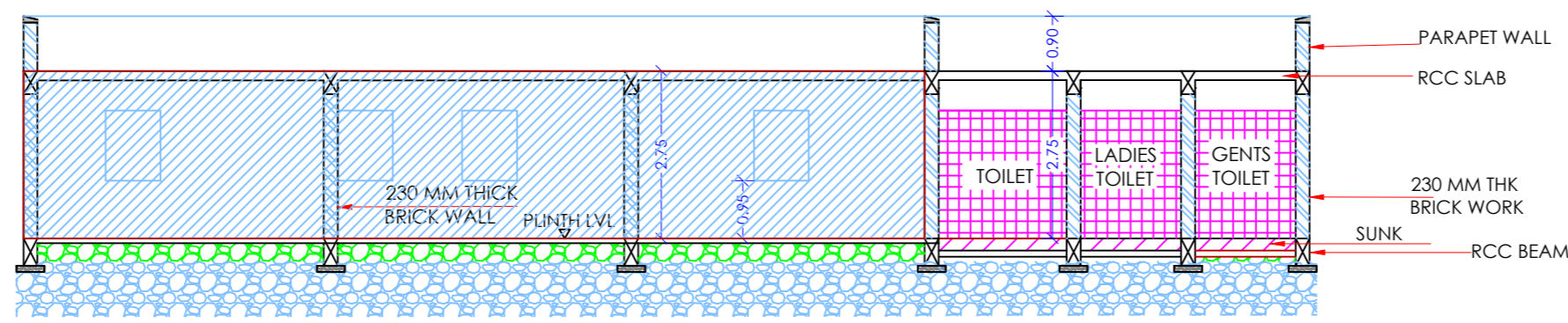
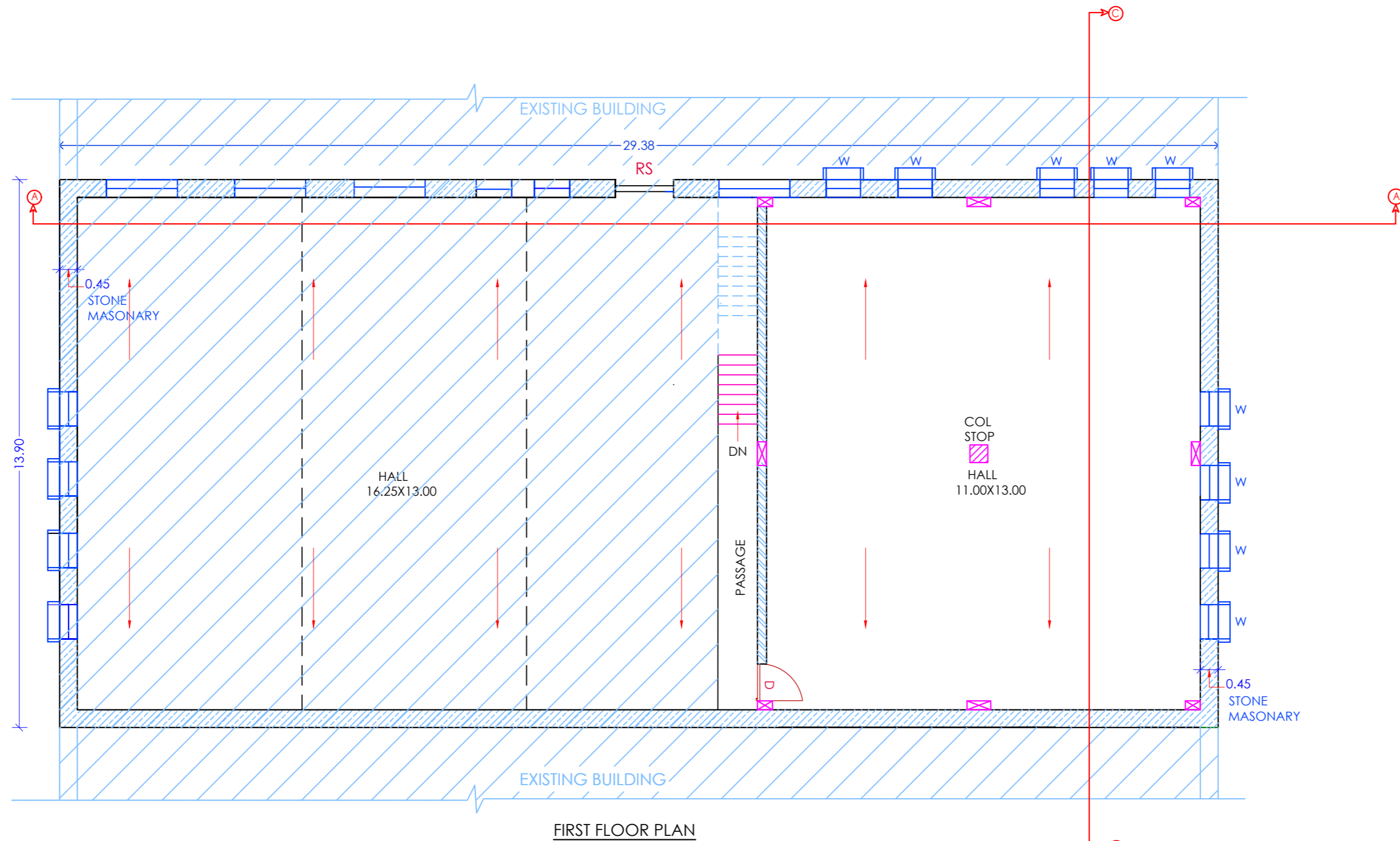
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| 9 | <p>Providing and fixing self supporting steel roofing system for a Godown or alike made up of structural grade steel sheet of 912 millimeter width (tolerance +/- 2 millimeter), moulded at site using mechanical press dies to the desired curve and shape to form 605 millimeter wide interlocking panels . The interlocking panels shall be pressed to close the seam forming water tight joints for a span of 15.30 meter having arch rise as 3.06 meter,arch length 17.75 meter. The base material made up of imported galvalume steel complying to ASTM A792 having base metal thickness of 0.80 millimeter (tolerace + / - 0.02 millimeter) with alloy coating AZ 150 and paint coating of regular modified polyster, top coat 25 micron and bottom coat 12 micron as per approved colour , including fixing hangers , clamps etc.as may be necessary of Proflex standard, including fixing sky light of 2 millimeter thick polycarbonate sheet of size 2' x 7' and</p> | 450 | 2531.55 | SQ.M | 1139197.5 |
|---|--|-----|---------|------|-----------|

| | | | | | |
|--|---|--|--|--|--|
| | <p>turbo ventilator of 24" diameter to be installed at every 30 feet along the length of roof including finishing, testing and cleaning etc. complete. RATE=2411+5%=2531.55</p> | | | | |
|--|---|--|--|--|--|

| | | | | | |
|------------------|---|--------------|---------------|------------|-----------------|
| <p>10</p> | <p>Providing sand faced plaster externally in cement mortar using approved screened sand, in all positions including base coat of 15mm thick in cement mortar 1:4 using water proofing compound at 1 Kilogram per cement bag curing the same for not less than 2 days and keeping the surface of the base coat rough or receive the sand face d treatment 6 to 8mm thick in cement mortar 1:4 finishing the surface by taking out grains and curing for fourteen days scaffolding etc. complete. RATE = 654 + 5% + 1% L.C. = 693.24</p> | <p>64.47</p> | <p>693.24</p> | <p>SQM</p> | <p>44693.18</p> |
| <p>11</p> | <p>Providing internal cement plaster 12mm thick in a single coat using Ready to use wall plaster to concrete or brick surface in all positions including scaffolding and curing complete. Providing groove at joint of B.B. Masonry and concrete members complete. a) cement ratio 1:5 With Prior Approval of Concerned S.E. RATE = 288 + 5% + 1% L.C. = 305.28</p> | <p>77.40</p> | <p>305.28</p> | <p>SQM</p> | <p>23628.67</p> |

| | | | | | |
|----|---|-------|--------------|-----|---------------------|
| 12 | <p>Providing and fixing P.V.C. Rain water pipes of 160mm outer diameter and having wall thickness of 2.2 to 2.7 mm confirming to I.S. 13592-1992 including proper rainwater receiving recess with P.V.C. plug, bend, necessary fittings, such as, offsets, shoes, including fixing the pipe on wall using approved wooden cleats projecting 25mm to 40mm from face of wall a fixing with clips of approved quality and One Number ,filing the joint using rubber gasket with solvent cement and properly resting the shoe of pipes on C.C. or masonry blocks, including necessary scaffolding and maintenance for 3 yrs for any leakages or dislocations of pipes. All the P.V.C. fittings and additional 2 piece socket clips shall be got approved from engineer in charge etc. complete RATE=1630+5%C.C.+1%L.C.=1727.8</p> | 36.00 | 1727.80 | RMT | 62200.80 |
| 13 | <p>Providing and constructing Brick Masonry Inspection Chamber 60cm x 45cm x90cm including 1:4:8 cement concrete foundation 1:2:4 cement concrete channels half round G.S.W. pipes, Brick Masonry, plastering from inside and with frame fixed in cement concrete with R.C.C. Cover medium duty 140Kilogramwith frame etc complete. RATE=9712 +5%C.C.=10197.6</p> | 6.00 | 10197.60 | NOS | 61185.60 |
| | | | TOTAL | | 2098041.82 |
| | | | Say | | 20,98,042.00 |

Note- 1. GST & Other Taxes Will Be as Applicable On Above Rates.



NOTES

- ▶ CONTRACTOR MUST VERIFY ALL DIMENSIONS AND DRAWING ON SITE AND REPORT ANY DISCREPANCIES TO THE ARCHITECT PRIOR TO THE COMMENCEMENT OF WORK.
- ▶ ONLY WRITTEN DIMENSIONS SHOULD BE FOLLOWED
- ▶ FOR RCC DETAILS REFER DETAIL DWG. BY STRUCTURAL CONSULTANT
- ▶ ALL DIMENSIONS ARE IN METERS

DOOR SCHEDULE

| No. | Type | Size | Description | NOS. |
|-----|------|----------|--------------|------|
| 1. | D | 0.90X2.1 | PLYWOOD DOOR | 1 |
| 2. | D1 | 0.75X2.1 | PLYWOOD DOOR | 4 |
| 3. | D2 | 1.5X2.1 | PLYWOOD DOOR | 1 |

WINDOW SCHEDULE

| No. | Type | Size | Description | NOS. |
|-----|------|------------|---------------------|------|
| 1. | V | 0.60X0.75M | ALUMINUM VENTILATOR | 3 |
| 2. | | | | |
| 3. | | | | |

REVISION TABLE

| No. | Date | Description |
|-----|----------|---|
| 1 | 04-04-25 | SECTION A A' ADDED |
| 2 | 16-06-25 | REVISED AS PER CLIENT REQUIRED .HDM/TMJ |
| 3 | 19-06-25 | FIRST FLOOR HEIGHT REVISED |
| 4 | 03-07-25 | RCC GUTTER ADDED |
| 5 | | |
| 6 | | |
| 7 | | |

ISSUE TABLE

| DATE | RE.NO. | CLIENT | CONTRACTOR | RCC | TENDER | OTHERS |
|------|--------|--------|------------|-----|--------|--------|
| | | | | | | |

DRAWING TITLE
WORKING DRAWING
 STUDY
WORKING DRAWING

JOB NO :-2580/B
 DATE :- 04-03-2025
 SCALE :- N.T.S.
 DRN. BY :- RBG/AAG
 CHK. BY :- PSH

NORTH

SHEET NO.
 WD/01

PROJECT NAME AND ADDRESS

PROPOSED USIC LAB SHIVAJI,
 UNIVERSITY KOLHAPUR

CLIENT:

SHIVAJI UNIVERSITY
 Kolhapur.

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 BE (Civil) ME(Struct)
 Consulting Engineer
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