#### OFFICE OF THE PROJECT DIRECTOR



(Building & Works Department)
University of Veterinary & Animal Sciences, Lahore

No. PD/4238 Dated: 14-12-2023

#### **TENDER NOTICE**

The University of Veterinary & Animal Sciences, Lahore invites sealed Tenders from the contractors / firms enlisted / qualified with University of Veterinary & Animal Sciences, Lahore for current financial year i.e. 2023-24 and having valid license by Pakistan Engineering Council in relevant category or above for the works given below:-

| Sr.<br>No. | Name of Work  | Estimated Cost<br>(Rs. in Million)   | T.S No. /<br>Dated      | Earnest<br>Money<br>(RS.)<br>3% | Tender<br>Fee<br>(Rs.) | PEC<br>Category | Time<br>Limit |
|------------|---|--|-------------------------|---------------------------------|------------------------|-----------------|---------------|
| 1          | Providing & Fixing of External Electrification at KBCMA, CVAS, Narowal. | Rs. 18,609,369/- BI-Annual period (1st July, 2023 to 31st December, 2023) District, Narowal            | BW/T.S/09<br>12-12-2023 | 558,281/-                       | 5,000/-                | C-6 &<br>Above  | 6-<br>Months  |
| 2          | Construction of R.O Plants (2-Nos.) at KBCMA, CVAS, Narowal.            | Rs. 8,213,650/-<br>BI-Annual period<br>(1st July, 2023 to<br>31st December, 2023)<br>District, Narowal | BW/T.S/08<br>08-12-2023 | 246,410/-                       | 4,000/-                | C-6 &<br>Above  | 6-<br>Months  |
| 3          | Construction of Dome at Academic Block, KBCMA, CVAS, Narowal.           | Rs. 6,922,392/- BI-Annual period (1st July, 2023 to 31st December, 2023) District, Narowal             | BW/T.S/04<br>18-10-2023 | 207,672/-                       | 4,000/-                | C-6 &<br>Above  | 3-<br>Months  |

#### **TERMS & CONDITIONS**

- 1. The Firm intends to participate in bidding must fulfill the Eligibility criteria. Eligibility Criteria is to provide the following Documents / attested copy of documents accompanied with Bids.
  - a) Valid License by Pakistan Engineering Council in relevant category and above with specialization code.
  - b) Registration Certificate with Federal Board of Revenue.
  - c) Registration Certificate with Punjab Revenue Authority.
  - d) Status of firm (Sole Proprietorship, Partnership, Company etc).
  - e) Affidavit on e-stamp paper of PRK 100/- about Non-Blacklist and Non-Litigation.
  - f) List of Name and Designation of Owner/Directors and Engineers of Firm.
  - g) Audit Report and Bank Statement for last three years.
  - h) List of completed works with the proof of completion certificate by the Client's for the last three years.
  - i) List of Projects in Hand with evidence of Work Orders.
- 2. Bidding documents are immediately available after the publication of Tender on PPRA Website (www.ppra. punjab.gov.pk) and University Website (http://www.uvas.edu.pk/)
- 3. Bidding Documents shall be issued during office hours up to 08-01-2024.
- 4. The performance security will be according to Clause-7 of General Conditions of Contract Documents.
- 5. In case of Tender Amount is 5% Below than Estimated Cost, **Additional Performance Security** will have to be provided in favor of *Treasurer*, *University of Veterinary & Animal Sciences*, *Lahore*.
- 6. The Bid Documents will be received up to 11:00 AM on 09-01-2024 in the office of Project Director, Building & Works Department, University of Veterinary & Animal Sciences, Lahore. The Bidding documents accompanied by bid security will be opened at 11:30 AM on same day.
- 7. The Tender will be accompanied by 3% bid security of the estimated cost in the form of Deposit at Call in favor of *Treasurer, University of Veterinary & Animal Sciences, Lahore.*
- 8. Any other information / detail of work regarding the Tender mentioned above can be obtain from Office of the Project Director, Building & Works Department, University of Veterinary & Animal Sciences, Outfall Road, Lahore during office hours (08:00 AM to 04:00 PM) Ph: 0429-9211374, 99211450, Ext-167.
- 9. The University of Veterinary & Animal Sciences, Lahore may reject all bids according to Clause-35 of PPRA Rules 2014.

--Sd-Project Director (B&W)
UVAS, Lahore



# University of Veterinary & Animal Sciences, Lahore.

# **Contract Documents**

| Name of Work:-    | <b>PROVIDING</b>        | &               | <b>FIXING</b> | OF F                 | EXTERNA  |
|-------------------|-------------------------|-----------------|---------------|----------------------|----------|
|                   | ELECTRIFICA<br>NAROWAL. |                 |               |                      |          |
|                   | NAKOWAL.                |                 |               |                      |          |
| Name of Contra    | ctor:                   |                 |               |                      | ·        |
| Estimated Cost    | of Work:                | R               | s. 18,609,3   | 69/-                 |          |
| Amount of Earn    | est Money:- <u>03%</u>  | <u>∕₀ of Es</u> | timated Pri   | <u>ce i.e. Rs. 5</u> | 58,281/- |
| Deposit at Call N | No:                     |                 |               |                      |          |
|                   |                         |                 |               |                      |          |
|                   |                         |                 |               |                      |          |
| Tender Fee Amo    | ounting to Rs           |                 |               |                      |          |
| Received vide Re  | eceipt No               |                 | Date          | d:                   |          |
| Time Limit:(      | 06-Months               |                 |               |                      |          |



# University of Veterinary & Animal Sciences, Lahore.

## **Contract Documents**

Name of Work:- <u>CONSTRUCTION OF R.O PLANTS (2-NOS.) AT KBCMA, CVAS, NAROWAL.</u>

| Name of Contractor:-          |   |
|-------------------------------|---|
| Estimated Cost of Work:-      | Rs. 8,213,650/-                         |
| Amount of Earnest Money:- 03° | % of Estimated Price i.e. Rs. 246,410/- |
| Deposit at Call No:.          |   |
|                               |   |
|                               |   |
|                               |   |
| Tender Fee Amounting to Rs    |   |
| Received vide Receipt No      | Dated:                                  |
| Time Limit:06-Months          |   |



# University of Veterinary & Animal Sciences, Lahore.

## **Contract Documents**

Name of Work:- CONSTRUCTION OF DOME AT ACADEMIC BLOCK, KBCMA, CVAS, NAROWAL.

| Name of Contractor:-          |   |
|-------------------------------|---|
| Estimated Cost of Work:-      | Rs. 6,922,392/-                         |
| Amount of Earnest Money:- 03% | % of Estimated Price i.e. Rs. 207,672/- |
| Deposit at Call No:.          |   |
|                               |   |
|                               |   |
|                               |   |
| Tender Fee Amounting to Rs    |   |
| Received vide Receipt No      | Dated:                                  |
| Time Limit: 03-Months         |   |

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|-------|--|
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|----|---|
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| L  | 1 I   |

# GENERAL DIRECTIONS FOR THE GUIDANCE OF THE TENDERERS

- 1. These directions are provided to assist the tenderer in preparing and submitting his tender. The tender shall contain all information and data required to be furnished and shall be prepared and submitted in accordance with the instructions set forth herein.
- 2. All necessary documents, such as copies of specifications (excluding standard specification books etc.), contract documents, including bill of quantities, estimated rates and any other document required in connection with the preparation of tender or execution of works, signed by the University Executive Engineer will accompany the tender form and the cost of such annexed documents will be reflected in the cost of the tender form.
- 3. The tenderer will not be reimbursed for any costs of any kind, whatsoever, incurred in connection with the preparation and submission of his tender.
- 4. No single tender shall include more than one work. A tenderer who wishes to tender for two or more works shall submit tender for each work, separately.
- 5. The memorandum of work tendered for, and the schedule of materials and equipment to be supplied by the University Executive Engineer and the rates at which they are to be charged for (annexed hereto) shall be filed in the office of the University Executive Engineer before the tender form is issued. At this stage the tenderer should ensure that the tender form so issued is complete in all respects.
- 6. The tenderer shall note that the ultimate responsibility for the quality of work and its conformity with the specifications and drawings rests solely with the successful bidder whose tender is accepted.
- 7. The tenderer shall at his own expense, inspect and examine the site and surroundings and obtain for himself, on his own responsibility, information that may be necessary for preparing the tender and entering into contract, and shall determine and satisfy himself by such means as he may consider necessary or desirable as to all matters pertaining to the tender. The tenderer shall also satisfy himself before submitting his tender as to the nature of grounds, hydrological and climatic conditions, the form and nature of the site, the nature and lay out of the terrain, the availability of labour, water, electric power and transportation facilities in the area. The tenderer shall specially investigate into the sources of materials to be used for the works and satisfy himself about the quality and quantities of materials for the completion of the work and the means of access to the site, the accommodation he may require and, in general, shall himself obtain all necessary information, as to the risks, contingencies and other circumstances which may influence or affect his tender. The University Executive Engineer shall not assume any responsibility regarding information gathered, interpretation or deduction which the tenderer may arrive at, from the data that may be furnished with the contract documents.
- 8. a) The tenderer shall fill up the bid schedule.
  - b) The tenderer shall quote his own unit rate in the bid schedule on which he is willing to undertake each item of work.
- 9. (i) The tenderer shall work out the amount against each item of work in the bid schedule and will indicate the total amount of his tender on which he is willing to complete the works. The total amount worked out in the bid schedule shall be entered by the tenderer in his tender as

his tender price for the work, in case of discrepancy between amounts in figures and in words the amount in words shall prevail.

- (ii) Should any discrepancy be found in the amount of pay items or if a column of amount is found blank after filling in a unit rate, the unit rate filled by the tenderer will be extended in working out of the amount of the tender and the total amount of the bid schedule will be adjusted accordingly.
- (iii) If a unit rate is left blank, but the amount against the item is filled, the unit rate will be worked out on the basis of the amount divided by the quantity of the item shown in the bid schedule.
- (iv) If it is found that the tenderer has not entered any unit rate and amount against any of the pay items of the bid schedule, the University Executive Engineer shall fill in the blanks by nothing the word "Nil" in such blanks at the time of opening of the tender. Such pay items shall be deemed to be covered by the rates of other items.
- (v) If the tenderer does not accept the adjusted / corrected amount of tender according to the above provision, his tender shall be rejected and the earnest money forfeited.
- 10. The tender which proposes any alteration in the works specified in the bid schedule or in the time allowed for carrying out the works or in any other condition mentioned by the University Executive Engineer, will be liable to rejection. The tenderer shall sign each and every page of the tender and contract documents, without making any alteration. All enclosures issued with the contract documents, shall be attached with the tender duly signed by the tenderer. Any addition or alteration made after filling the form shall be duly attested by the tenderer. Non-compliance of this condition shall render the tender liable to rejection.
- 11. The tenderer shall fill in the tender documents in ink. Errors, if any, shall be scored out and corrections rewritten legibly and attested by the tenderer. Any tender with unattested correction shall be attested by the tenderer in the presence of other tenderers at the time of opening of the tender except that no correction shall be permissible in the rate or amount of the bid schedule or in the tendered price after the opening of the tender.
- 12. Additional clause(s) for a particular work shall be typed on separate sheet by the University Executive Engineer, which will be annexed to the contract documents specifying the number of sheet(s). The tenderer shall not add or delete any additional clause(s) in the additional clause(s) sheet(s), provided by the University Executive Engineer.
- 13. The quantities mentioned in the bid schedule are estimated quantities, to be used for preparing tenders, and the University Executive Engineer does not expressly nor by implication agree that the actual amount of works to be performed will correspond there with. No payment will be made on account of anticipated profits for work covered by the contract which is not performed, nor will any adjustment in the unit rates set forth in the bid schedule be made because of an increase or decrease in the actual quantities from the estimated quantities indicated therein, except as determined in accordance with the provisions of clause 42 of the general conditions of contract.
- 14. No tender without earnest money shall be entertained, Earnest money, calculated @ 3% of the estimated cost of the work (rounded suitably), shall be in the form of deposit at call receipt. The earnest money of the unsuccessful tenderers shall normally be returned by the Secretary Works Committee, University of Veterinary & Animal Sciences, Lahore (UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE) within a week of

- opening of the tenders and in any case not later than thirty (30) days following the date set for opening of the tenders. In the event of the tender being accepted, a receipt of the earnest money forwarded therewith, shall there upon be given to the contractor. The earnest money of the successful tenderer on execution of the contract covering work will be adjusted towards the amount of security deposit to be retained from the first amount (s) payable to the contractor under the contract.
- 15. The successful tenderer will be required to enter into a contract, furnish the performance security (wherever required) and to commence the work within the times specified in the memorandum of work. Should the successful tenderer refuse or fail for any reason to enter into contract, or to furnish the performance security or to commence the work within the time specified in the memorandum of work, it should constitute a just cause for the annulment of the award and in the event of such annulment, the entire earnest money shall be forfeited to UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, as compensation for such default.
- 16. (i) The tender shall be signed by the person(s) duly authorized to do so. In the event of a tender being submitted by a firm, it shall be signed separately by each member thereof, or 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. Such power of attorney should be produced with the tender and it must disclose that the firm is duly registered under the partnership Act, 1932 or any other law in force.
  - (ii) The tender submitted by a joint venture of two or more firms shall be accompanied by a document of formation of the joint venture, duly registered and authenticated by a competent court, in which shall be stated precisely, the conditions under which it shall function, its period of validity, the person(s) authorized to represent it and accept its obligations the participation of several firms forming the joint venture and any other information necessary to permit a full appraisal of its function.
  - (iii) A tender submitted by a corporation must bear the seal of the corporation and be attested by its Secretary.
  - (iv) In all cases, the tender must be signed by an individual or individuals having powers to legally bind the firm, joint venture, corporation or companies on whose behalf they are signing.
- 17. Each tenderer shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender and of the rates and prices stated in the bid schedule, which rates and prices shall, except in so far as it is otherwise expressly provided in the contract, cover all obligations under the contract and all matters and things necessary for the proper completion and maintenance of the work.
- 18. The tenderer may modify or withdraw his tender after submission, provided that the modification or notice of withdrawal is received in writing by the University Executive Engineer prior to the prescribed deadline for submission of tenders. The tenderer's modification or notice of withdrawal shall be prepared, sealed, marked and delivered, with the inner envelops additionally marked "MODIFICATION OR WITHDRAWAL" as appropriate. No tender may be modified subsequent to the deadline for submission of tenders. Withdrawal of a tender during the interval between the deadline for submission of

- tenders and the expiration of the period tender validity i.e. sixty (60) days as specified by the tenderer in the form of tender may result in the forfeiture of the tender security.
- 19. The tenderer shall submit the original tender documents complete in all respect and keep a copy of the tender for his own record. The original should be sealed in an inner and an outer envelope, duly marking the envelopes as "ORIGINAL". The inner and outer envelopes shall, (a) be addressed to (Secretary Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE), (b) and bear the following identifications: Tender for (Name of Contract), (Reference Number of Tender), and the words "DO NOT OPEN BEFORE, (Time and Date, set for opening)". The inner envelopes shall indicate the name and address of the tenderer to enable the tender to be returned unopened in case it is declared to have been received late is otherwise unacceptable. If the outer envelope is not sealed and marked as instructed above, the University Executive Engineer will assume no responsibility for the misplacement or premature opening of the tender submitted. A tender opened prematurely because of improper identification will be rejected.
- 20. The tenderer shall indicate in the space provided in the tender his full and proper address at which notices may be legally served on him and at which all correspondence in connection with his tender and the contract is to be sent.
- 21. The presentation of tender implies full acceptance on the part of the tender of these instructions and all other conditions set forth in the contract document.
- 22. Any tender received by the (Secretary Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE) after the deadline for submission of tenders prescribed in the Notice Inviting Tenders will be returned unopened to the tenderer.
- 23. The University Executive Engineer or his duly authorized officer (not below the rank of Assistant Engineer / Sub Divisional Officer) will open tenders in the presence of intending tenderers or their authorized agents, who may be present at the time. The officer opening the tender will announce the names of the tenderer, tender rates and the presence of requisite tender security.
- 24. Promptly after the opening of tenders, the University Executive Engineer will undertake a detailed evaluation of tenders. The University Executive Engineer will determine whether each tender is substantially responsive to the requirements of the tender documents and conforms to all the terms, conditions and specifications of the tender documents without material deviation or reservation; if a tender is not substantially responsive to the requirements of the tender documents, it will be rejected by the University Executive Engineer and may not subsequently be made responsive by the tenderer having corrected or withdrawn the non-confirming deviation or reservation.
- 25. Except for information to be read out by the University Executive Engineer at the time of opening tenders, accordance with para 23 above, no information relating to the examination, clarification, evaluation and comparison of tenders and recommendations concerning the award of contract shall be disclosed to tenderers or other persons not officially concerned with such process. Any effort by a tenderer to influence the process of examination, clarification, evaluation and comparison of tenders, and in decisions concerning award of contract, may result in the rejection of his tender.
- 26. To assist in the examination, evaluation and comparison of tenders, the University Executive Engineer may ask tenderers individually for clarification of their tenders, including breakdowns of unit rates. The request for clarification and the response shall be in writing or by cable, but no change in the price or substance of the tender shall be sought, offered or
  - permitted except as required to confirm the correction of arithmetical errors discovered by the University Executive Engineer during the evaluation of the tender.

26.(A) In case the total tendered amount is less than 5% of the approved estimated (**DNIT**) amount, the lowest bidder will have to deposit additional performance security from the Scheduled Bank ranging from 5% to 10% as under, within 15 days of issuance of notice or with in expiry period of bid, whichever is earlier.

| TOTAL TENDERED AMOUNT BELOW  | ADDITIONAL |
|------------------------------|------------|
| PERFORMANCE SECURITY         |            |
| CORRESPONDING ESTIMATED COST |            |
| 5%                           | 5%         |
| 6%                           | 6%         |
| 7%                           | 7%         |
| 8%                           | 8%         |
| 9%                           | 9%         |
| 10%                          | 10%        |

Note: And further clarified by the Finance Department vide this Notification No. RO(Tech.) FD-1-2/83. VI(P) dated 24-01-2006 that if contractor quote rates 11% below the technically sanctioned and then the corresponding additional security @11% (or subsequent %age below the estimated cost) shall be deposited.

- 26-B) Lowest evaluated bidder shall, within 15 days of receipt by him of a notice in this regard, furnish to the tender approving authority in cash, bank draft, cashier's cheque, payment order of bank guarantee (valid for three months beyond completion time / extend completion time) from any scheduled Bank of Pakistan, the amount to make up performance security & or additional Performance Security, where required and specified in the tender in item (h) of Memorandum of work. Should the lowest evaluated bidder refuse or fail of any reason to furnish the performance security within the specified time, it should constitute a just cause for rejection of his tender and in the event of such rejection the entire earnest money shall be fortified to government as compensation for such default.
- 27. The University Executive Engineer shall have the right of rejecting all or any of the tenders without assigning any reason thereof. The University Executive Engineer will not be bound to award the contract to the lowest or to any other tenderer.
- 28. The unit rates and prices entered in the bid schedule will be the rates at which the contractor will be paid (subject to the adjustment specified in clause 55 of the annexed conditions) and shall be deemed to include all costs of performing the work, including income tax, super tax, and / or other charges, duties and taxes of the Government, autonomous, semi-autonomous and local bodies, profits and costs of accepting the general risk, liabilities and obligations set forth in or implied from the contract.
- 29. Prior to the expiration of the period of tender validity (60 days) prescribed in the tender form or any extension thereof that may have been granted by the tenderer, the University Executive Engineer will notify the successful tenderer by cable and confirm in writing by registered letter that his tender has been accepted. This letter of acceptance shall name the sum which will be paid in consideration of the execution, completion and maintenance of the
  - works as prescribed in the contract, (hereinafter called the contract price). The notification of award will constitute the formation of the contract.
- 30. The University Executive Engineer will notify acceptance of the tender to the successful tenderer. The contract agreement may be obtained by the contractor from the office of Director Works at his own cost. Within fifteen (15) days of receipt of the form of agreement, the successful tenderer shall furnish the performance security (5% the contract price) and sign the contract in the presence of the University Executive Engineer.
- 31. After the successful tenderer has signed the contract and furnished adequate performance security the University Executive Engineer will notify to the unsuccessful tenderers that they were unsuccessful.

- 32. The completion period will be reckoned from the date of delivering the award or the handing over of the site to the contractor, whichever is later.
- 33. A copy of contract agreement may be obtained by the contractor at his own cost.

### MEMORANDUM OF WORK

(To be filled by the Project Directorate of the University of Veterinary & Animal Sciences, Lahore)

| Genera<br>(if seve | l Description ral sub works are included, they should be detailed in a separate sheet)  |  |  |
|--------------------|---|--|--|
| (a)                | Estimate cost Rs.   |  |  |
| (b)                | Amount of earnest money to accompany the tender Rs  |  |  |
|                    | (to be furnished by the tenderer in the shape of deposit at call from a scheduled Bank of   |  |  |
|                    | Pakistan)   |  |  |
| (c)                | Percentage of security deposit to be retained from the bills.   |  |  |
|                    | <ul> <li>i. On the amount of work done upto Rs. 5 million = ten (10) percent</li> <li>ii. On the amount of work done beyond Rs. 5 million = five (5) percent</li> </ul> |  |  |
| (d)                | Minimum amount of interim running bills Rs.   |  |  |
| (e)                | Mobilization perioddays   |  |  |
| (f)                | Time allowed to complete the work after the expiry of mobilization period days.   |  |  |
| (g)                | Amount of performance security of Rs in   |  |  |
|                    | the form of Bank Guarantee (see contract conditions clause 7 and general direction 26 (A),  |  |  |
|                    | five (05) percent of the accepted tender price in case of tenders with cost exceeding Rs. 50  |  |  |
|                    | millions and as per condition 26(A) for all tenders.  |  |  |
| (h)                | Period of maintenance (after the date of issuance of certificate of completion)   |  |  |

| Agreement No |  |
|--------------|--|
|              |  |

## University of Veterinary & Animal Sciences, Lahore

Project Director
University Executive Engineer

#### PERCENTAGE / ITEM RATE AND CONTRACT FOR WORKS

| 1. | Name of Work:-              |                             |  |  |
|----|-----------------------------|-----------------------------|--|--|
|    |                             |                             |  |  |
|    |                             |                             |  |  |
|    |                             |                             |  |  |
| 2. | Estimated Cost:             | Rs                          |  |  |
|    |                             | (Both figures and words)    |  |  |
| 3. | Time for Completion:-       |                             |  |  |
| 4. | Amount of earnest money Rs. |                             |  |  |
|    |                             | (Rupees)                    |  |  |
|    |                             |                             |  |  |
| 5. | Issued to:                  |                             |  |  |
|    |                             | (Name of Contractor)        |  |  |
| 6. | On Dovernment of Do         |                             |  |  |
|    | ·                           | (Both in words and figures) |  |  |
|    |                             |                             |  |  |
|    |                             | Signature:                  |  |  |
|    |                             | (Official issuing the form) |  |  |
|    |                             | Dated:                      |  |  |
|    |                             | Office Stamp:               |  |  |
|    |                             | <del>-</del>                |  |  |

Note: The officer opening the tender shall reject the tender which does not bear the stamp and signature of the issuing official and which is not submitted by the same contractor to whom the tender form was issued.

(This page is to filled in by the issuing official)

|      | Name of | f Work:-                       |              |                     |                    |              |   |              |
|------|---------|--------------------------------|--------------|---------------------|--------------------|--------------|---|--------------|
|      |         |                                |              | BID SCHE            | DULE               |              |   |              |
|      | Schedul | e Items                        |              |                     |                    |              |   |              |
|      | Sr. No. | Items in the So<br>Pare No.    | Serial No.   | Description of item | Estimated Quantity | Unit of Rate | Schedule Rate   | Amount (Rs.) |
|      | 1       | 2                              | 3            | 4                   | 5                  | 6            | Based on MRS 2nd<br>BI-Annual period<br>(1st July, 2023 to<br>31st December, 2023)<br>District, Narowal | 9            |
| (i)  |         |                                |              | on Sr. No           | ) Rs               | )            | _   |              |
| (ii) |         | and words)  Percent and words) | (Above are b | on Sr. No           | ) Rs               | )            | _   |              |

Contractor

(iv) Percent\_\_\_\_\_\_ (In figures and words)

(v) Percent\_\_\_\_ (In figures and words)

Percent on Sr. No. No. Rs. (In figures and words) (Above are below)

(Above are below)

\_\_\_\_\_on Sr. No.\_\_\_\_\_) Rs. \_\_\_\_\_ (Above are below)

\_on Sr. No.\_\_\_\_) Rs. \_\_\_

1.

University Executive Engineer

|           | Name of Work:-                                |                     |                       |                 |  |          | -  |
|-----------|---|---------------------|-----------------------|-----------------|--|----------|--|
|           |   | RID SO              | CHEDUI                | E (con          | <b>(</b> †)  |          |  |
| Other tha | an Schedule Items / Items Rate                | DID SC              |                       | ZL (COII        |  |          |  |
| Sr. No.   | Pay item No. Or referance to special supplied | Description of Item | Estimated<br>Quantity | Unit of<br>Rate | (To be filled in by the<br>Contractor when not<br>already filled in by the<br>District Officer |          | Amount (To be filled in by the Contractor when not already filled in by the District Officer for items against which the unit rate have already been |
|           |   |                     |                       |                 | In figures   | In words | filled in by him   |
| 1         | 2   | 3                   | 4                     | 5               | 6  | 7        | 9  |
| Total cos | et of other than Schedule Items               | / Items Rate.       |                       |                 |  | Rs.      |  |
|           |   |                     |                       |                 |  |          |  |

1.

| Name of Work:-      |   |            |  |
|---------------------|---|------------|--|
|                     |   |            |  |
| -                   |   |            |  |
|                     |   |            |  |
|                     |   |            |  |
|                     | BID SCHEDULE (  | cont)      |  |
|                     | Total tendered amount of the (To be filled in by the Tend |            |  |
| Total cost of sched | dule items.   | <b>Rs.</b> |  |
| Total cost of other | than schedule items / Items Rate.                         | Rs         |  |
|                     | Grand To  | otal Rs.   |  |
|                     |   |            |  |
|                     |   | Rs.        |  |

(in words) Rupees

1.

2.

To

The University Executive Engineer

| University of Veterinary and Lahore           | _   |                          |
|---|---|--------------------------|
| Dear Sir,                                     |   |                          |
| I / we  |   |                          |
| (Nan  | ne of the contractor)                       |                          |
| the undersigned tenderer, having exa          | mined the conditions of contract, specif    | fications, drawings, bid |
| schedule and addenda Nos                      |   | thereto, for the         |
| work of                                       |   |                          |
|   |   | (Name of work)           |
| And the works associated therewith,           | , and having examined the site of the a     | above named works, or    |
| having caused the site to be visited          | on our behalf by my / our competent         | and reliable agent, and  |
| having satisfied myself / ourselves as        | s to all conditions under which the above   | e named work must be     |
| performed, hereby offer to execute, of        | complete and maintain the whole of the      | above mentioned work     |
| including its ancillary works associate       | ted therewith, in accordance with the sa    | aid contract documents   |
| including the addenda indicated abo           | ove, a tender price of Rs.                  | _ (Rupees)               |
|   | or such other sums as n                     | nay be ascertained in    |
| accordance with the said conditions schedule. | of contract and the rates, and the price    | ces set forth in the bio |
| •   | rmance of the undertaking and obligation    |                          |
| _   | ipt No                                      |                          |
|   | amount of Rs.                               |                          |
|   |   |                          |
| From the Bank                                 |   | drawn ir                 |
|   | or made payable to you as earnest m         |                          |
| ·   | University of Veterinary & Animal Sc        |                          |
|   | lies of the said University, should I / we  | -                        |
| • •   | ety (60) days, following the date of receip | •                        |
| 3. I / we understand that if my               | y/our tender is accepted, the full value of | n me earnest money as    |

- attached with the tender shall be detained by University of Veterinary & Animal Sciences, Lahore towards the amount of security deposit specified in clause 48 of the said conditions of contract and item (d) of the memorandum of work.
- 4. Should this tender be accepted by you I / we hereby undertake:-
- a) To sign all the necessary documents for entering into contract agreement in the form set out in the contract document within fifteen (15) days following your notification of such acceptance.
- b) To commence the work within the stipulated time named in item (f) of memorandum hereto annexed following the date of issuance of your order to proceed with or the handing over of the site, whichever is later and in the event of my /our failure to do so, the entire amount of earnest money deposited by me /us for which deposit at call receipt is enclosed herewith is to be absolutely forfeited to the University of Veterinary & Animal Sciences, Lahore. On the commencement of the

work, I /we hereby also agree to abide by and fulfill all the terms or provisions of the said conditions of the contract annexed hereto so far as applicable and in default thereof, to forfeit and pay to Government the sums of money mentioned in the said conditions.

- c) To complete and deliver the whole of the work comprised in the contract within the time stipulated in item No. (g) of the memorandum hereto annexed, subject to such extension in the time limit as may be granted under the conditions of contract.
- d) The furnishing of performance security under item (h) of the memorandum annexed hereto, in the sum equal to 5 (five) percent of the cost of the work in the same form and on the same conditions as are prescribed by and to the satisfaction of the University Executive Engineer.
- 5. I /we also agree that when materials and / or equipment for the work are provided by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE to be paid for them shall be as provided in appendices annexed hereto.
- I /we agree to abide by this tender for the period of thirty (30) days following the date set 6. for receiving of tenders and it shall remain binding upon me / us and may be accepted by you at any time before the expiration of that period.
- Unless and until a formal agreement is prepared and executed, this tender, together with your written acceptance thereof, shall constitute a binding contract between us, and shall be deemed for all purposes to be the contract agreement.
- I / we understand that you are not bound to accept the lowest or any tender you may receive, and that you will not defray any expenses incurred by me / us in tendering.

Executive Engineer, his new address.

| Thanking you,                                    | Yours Faithfully,  |
|--|--|
|  | (Signature of tenderer) Name                               |
|  | Address  |
| Dated this Day                                   |  |
| Of The above tender is hereby accepted           | by me on behalf of University of Veterinary & Anima        |
| Sciences, Lahore.                                |  |
|  | (Signature of University                                   |
|  | Executive Engineer)  |
|  | Department   |
| In case the above address is changed, the contra | actor will immediately notify in writing to the University |

# GENERAL CONDITIONS OF CONTRACT DEFINITIONS AND INTERPRETATIONS

#### **Definitions Clause 1**

In the contract (as herein after defined) the following words and expressions shall have the meaning hereby assigned to them, except where the context otherwise requires:-

- 1) "Agent" means the person appointed by the contractor to act on his behalf in his absence;
- 2) "Certificate of completion" means the certificate of completion given by the University Executive Engineer pursuant to clause 40 of these conditions;
- 3) "Contract" means the contract agreement, the documents set out therein and includes the conditions of contract, the tender and acceptance thereof, the specifications, the drawings, the bid schedule, schedule of rates and the prices;
- 4) "Contractor" means the person or persons, firm or company whose tender has been accepted by the University Executive Engineer, and shall include the contractor's duly authorized representative, successors and assigns;
- 5) "Contract price" means the sum named in the tender, subject to such addition thereto or deductions there from as may be made under the provisions of the contract;
- 6) "Constructional Plant" means all appliances, or things required in or about the execution, completion, or maintenance of the works or temporary works, but does not include the materials or other things intended to form or forming part of permanent or temporary works;
- 7) "Drawings" means the drawing(s) referred to in the contract documents and any modifications of such drawing(s) as may from time to time be furnished or approved in writing by the University Executive Engineer;
- 8) "University Executive Engineer" means the University Executive Engineer or any other officer who for the time being and from time to time is in charge of the works and includes an officer appointed by the University of Veterinary & Animal Sciences, Lahore to act as University Executive Engineer for the purposes of the contract;
- 9) "University of Veterinary & Animal Sciences, Lahore" *means the* University of Veterinary & Animal Sciences, Lahore;
- 9-a) "Item Rates" means the rates determined on the basis of the market rates system(MRS) introduced by the Government in replacement of the Composite Schedule of Rates 1998 through Finance Department Notification NO. R.O (Tech.) F.D.2-3/2004 dated:02-08-2004
- 10) "Period of maintenance" means the period during which the contractor is obliged to guarantee the work or defined portions of work against defect and during which he is obliged to perform any maintenance procedure that may be specified by the University Executive Engineer and shall be calculated from the date of the certificate of completion given by the University Executive Engineer in accordance with clause 40 hereof or in the event of more than one certificate having been issued by the University Executive Engineer under the said clause from the respective dates so certified;
- 11) "Maintenance" means the repairs, amendment, reconstruction and includes the rectification of defects imperfections, shrinkages and other faults except fair wear and tear as may be required of the contractor in writing by the University Executive Engineer during the period of maintenance;
- 12) "Programmed of work" means the programme of work submitted by the contractor and approved by the University Executive Engineer and includes and amendment thereto made from time to time and approved by the University Executive Engineer.
- 13) "Site" means the lands and other places on, at, over, under, in or through which the works are to be executed or carried out in pursuance of the contract or any adjacent land, or part or street, which may be allotted or used for the purpose of carrying out the contract or any lands or places provided by the University Executive Engineer for the purpose of the contract together with such other places as may be specifically designated in or pursuant to the contract as forming part of the site;

- 14) "Specifications" means the specification referred to in the tender and any modification thereof or addition thereto as may from time to time be furnished or approved in writing by the University Executive Engineer;
- 15) "Temporary Works" means all temporary works of every kind required in or about the construction, completion or maintenance of the works;
- 16) "Works" means the works to be executed in accordance with the contract and includes any permanent work as required for the performance of the contract.

#### Clause 2

Marginal headings for information only

The marginal headings, the words, notes, titles and phrases used in these general conditions and documents attached hereto, are strictly for information and direction of the reader with regard to the contents of the said documents and shall by no means be invoked for interpretation of the said clauses nor shall they be deemed to be part thereof or be taken into consideration in the interpretation or of the contract.

#### Clause 3

Term to include Designation of **Corresponding Post**  The term "University Executive Engineer" "Project Director" and Chief Engineer used in the contract and the documents attached thereto, shall respectively be taken to include the terms "University Executive Engineer" "Project Director" and "Campus Committee" or the holder of the corresponding posts in relation to the work.

#### Clause 4

**Documents Manually** Explanatory

#### CONTRACT DOCUMENTS

Except if and to the extent otherwise provided by the contract, the conditions of contract and additional conditions annexed hereto shall prevail over those of any other document forming part of the contract. Subject to the foregoing, the several documents forming the contract are to be taken as mutually explanatory of one another but in case of any error, omission, ambiguity or discrepancy is found between these documents, the same shall be reported to the Engineer-in-charge who shall correct such error or omission or explain and adjust the ambiguity or discrepancy, as the case may be, and shall thereupon issue to the contractor instructions directing in what manner the work is to be carried out, . Provided always that if in ; the opinion of the University Executive Engineer compliance with any such instructions shall involve the contractor in any expenses which by reason of any such error, omission, ambiguity or discrepancy, the contractor did not have reasons to anticipate, the University Executive Engineer shall pay such additional sums as he shall certify to be reasonable to cover such expenses. Provided further that any work done by the contractor, which perpetuates or adds to any error, omission, ambiguity or discrepancy, already discovered and pointed out, shall be considered to have been done at the contractor's own risk.

#### Clause 5

1)

**Custody of Drawings** 

The drawings shall remain in the sole custody of the University Executive Engineer but two sets of the detailed or working drawings will be obtained by the contractor free of cost from the University Executive Engineer after acceptance of his tender. The contractor shall provide and make at his own expense any further copies required by him. On the completion of the contract, the contractor shall return to 2)

Classified Drawings

3)

One copy of Drawing to be kept on site

4)

Further Drawings and instructions

the University Executive Engineer all drawings provided to him under the contract.

If so instructed , the contractor shall undertake not to disclose details of classified drawings, other than to men in his employ and will give an undertaking to the University Executive Engineer that these drawings are not replicated or passes on to others or used by any other agency / person.

One copy of the drawings furnished to the contractor as aforesaid shall be kept by the contractor at site and the same shall at all reasonable times also be made available for inspection and used by the University Executive Engineer or by any of his superior officer or by any person authorized by the University Executive Engineer in writing.

The University Executive Engineer shall supply to the contractor, from time to time during the progress of the works, such further drawings and instructions as shall be necessary for the purpose of the proper and adequate execution and maintenance of the works, and the contactor shall carry out and be bound by the same. The contractor shall give adequate notice in writing, to the University Executive Engineer of any such further drawing and instructions that contractor may require for execution of works or otherwise under the contract.

#### **GENERAL OBLIGATIONS**

The contractor shall, when called upon so to do by the University Executive Engineer enter into and execute a contract agreement in the form annexed.

The contractor shall (a) within 15 days of the receipt by him of the notification of the acceptance of his tender furnish to the Treasure UVAS Lahore in cash, Bank draft, Cashier's Cheque or payment order or Bank Guarantee from the bank of Punjab or any scheduled bank of Pakistan, the amount to make up the full performance security where required and specified in the tender, and / or (b) permit UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE at the time of making and payment to him for work done under the contract deduct such sum as specified in item(h) of memorandum and moneys or deductions so paid or made shall be held as additional security deposit. All compensation or the sums of money payable by the contractor under the terms of this contract may be deducted from, or paid by the sale of sufficient part of his performance security, and in the event of his performance security reduced by reason of any such deduction or sale as aforesaid the contractor shall within ten days thereafter make good in cash or other securities as aforesaid and sum or sums which may have been deducted from, or raised by sale of performance security or any part thereof.

If the amount of the performance security is not furnished within the period specified at (a) above, the tender already accepted shall be considered as cancelled and the tender security will be confiscated by the Treasure UVAS Lahore. The performance security deposit lodged by a contract (in cash or other form or retained in installments from his bills) shall be refunded to him after the expiry of three months from the date on which the work is accepted, or along with the final bill if it is prepared after that period on account of some unavoidable circumstances.

#### Clause 6

Contract agreement

#### Clause 7

Performance Security

Programme of work to be furnished it so required by University Executive Engineer

- Engineer submit in writing to the University Executive Engineer within the period specified by him for his approval a Programme showing the order of procedure and the method in which he proposes to carry out the works. The time and progress chart shall be prepared indirect relation to the; time period started in item (g) of the memorandum hereto annexed for; the completion of individual items thereof and the works as a whole. It shall indicate the forecast of the date for commencement and completion of various trade processes or section of the works, and shall be amended as may be required by agreement between the University Executive Engineer and the contractor within the limitation of time imposed in the contractor documents.
- Executive Engineer, furnish for his information full particulars in writing of the organization and staff by which he proposes to direct and administer his performance of the contract and also such further information concerning the contractor's arrangements for the carrying out the work and of the constructional plants or temporary works which the contractor intends to supply, use or construct, as the case may be.
- The submission to and approval by the University Executive Engineer of such Programme, or the furnishing of such particulars or information shall not relieve the contactor of any of his duties or responsibilities under the contract
- In the event of the non-submission of the Programme or revised/ amended Programme of work by the contractor for approval by the University Executive Engineer within the period specified by the University Executive Engineer, the contractor shall be liable to pay as compensation an amount, equal to ¼ % per day or such smaller amount as the University Executive Engineer (whose decision in writing shall be final) may decide on the total tendered amount of the work, subject to maximum of 2% of contract amount.

Action when Programme not submitted in time

#### Clause 9

Setting out

The contractor shall be responsible for the true and proper setting out of the work in relation to original points, lines and levels of reference given by the University Executive Engineer in writing and for the correctness (subject as above mentioned) of the position, levels, dimensions and alignments of all parts of the works and for the provision of all necessary instruments, appliances and labour in connection therewith. If at any time during the progress of the work, any error shall appear or arise in the position, levels, dimensions, or alignment or any part of the works, the contractor on being required so to do by the University Executive Engineer, shall at his own expense, rectify such error to the satisfaction of the University Executive Engineer unless such error is based on incorrect data supplied in writing by the University Executive Engineer in which case the expenses of rectifying the same shall be borne by the Government. The checking of any setting out or of any line or levels by the University Executive Engineer shall not in any way relieve the contractor of his responsibility for the correctness thereof, and the contractor shall carefully protect and preserve all points, marks, lines, levels, bench marks, site-rails, pegs, slope stakes, batten boards for location, and other things used in setting out the works.

#### Clause 10

Work to be executed in accordance with the specification drawings orders etc

The contractor shall execute the whole and every part of the works in the most substantial and workman-like manner, and both as regards material and otherwise in every respect in strict accordance with the specification. The work executed by the contractor shall also conform to the design(s) and / or drawings and instructions in writing relating to the work signed by the University Executive Engineer and lodged in his office, and to which the contractor shall be entitled to have access at such office, or on the site of the work for the propose of inspection during office hours. The contractor shall, if so required; be entitled at his own expenses to make or cause to be made copies of specifications, and of all such designs, drawings and instructions as aforesaid.

#### Clause 11

Action where no specifications are provided

In the case of any class of work for which there is no such specification as mentioned in para-2 of general directions for the guidance of the tenderer annexed hereto, such work shall be carried out in accordance with the prescribed standard specifications, and in the event of there being no such specifications, in accordance with the specification attached with the tender, if however, there is no standard specification or specifications attached with the tender, the work shall be carried out, in all respects in accordance with the instructions and requirements of the University Executive Engineer.

#### Clause 12

Work to be under direction of University Executive Engineer All works to be executed under the contract shall be executed under the directions and subject to the approval in the respects, of the University Executive Engineer 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 13

Lighting at Night work

In the event of night work being carried on, the contractor shall provide and maintain such good and sufficient lights as will enable the work to proceed with satisfactorily and without danger. Similarly, the approach to the site and works where the night work is being carried out shall be efficiently lighted. All arrangements adopted for such lighting shall be to the satisfaction of the University Executive Engineer.

Watching and Lighting

The contractor shall in connection with the works provide and maintain at his own cost all lights, warning lights, caution boards, attendants, guard fencing and watch men, when and where necessary or required by the University Executive Engineer, for the protection of the works or for the safety and convenience of the public or others.

#### Clause 14

to

Arrangements safeguard danger unfinished work The contractor is expected to make himself acquainted with the weather conditions, etc, and make his arrangements in such a manner that unfinished work is not in danger from storms, floods, etc. A claim by the contractor for a loss caused by any such eventuality will not be entertained by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

#### Clause 15

The contractor shall supply at his own cost all materials (except such material, if any as may in accordance with the contract be supplied from the departmental store) constructional plants, tools, appliances,

Contractor to supply plant, leaders, scaffolding, etc

Contractor liable to pay damages arising from non-provision of lights fencing etc.

implements, ladder, cordage, tackles, scaffoldings and temporary works, requisite or proper for the execution of the works, whether original, altered or substituted, and whether included in the specifications or other documents forming part of the contract referred to in these conditions or not, or which may be necessary for the purpose of satisfying or complying with the requirements of the University Executive Engineer as any matter as to which under these conditions he is entitled to be satisfied, or which he is entitled to require together with carriage therefore, to and from the work. The contractor shall also supply without charge the requisite number of persons with the means and material necessary for the purpose of setting out works, and counting, weighing, and assisting in measurement or examination at any time, and from time to time of the work or materials. Failing his so doing the same may be provided by the University Executive Engineer 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. The contractor shall also provide all necessary fencing and lights required to protect the public from accident, and shall be bound to bear the expenses of defense of every suit action or other proceedings at law that may be brought by any person for injuries sustained by him owing to neglect in taking 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 to compromise any claim by any such person.

#### Clause 16

Notice to be given before the work is covered up

The contractor shall give not less than five days notice in writing to the University Executive Engineer or his subordinates 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 be taken before the same is so covered up or placed beyond the reach of measurement and shall not cover up or place beyond the reach of measurement any work without the consent in writing of the University Executive Engineer or his subordinate in charge of the work. If any work is covered up or placed beyond the reach of measurement, without such notice having been given and consent obtained the same shall be uncovered at the contractor's expenses, and no payment or allowance shall be made for such work or the materials with which the same was executed.

#### Clause 17

1)

Contractor's employees

The contractor shall provide and employ on the site for the purpose of and in connection with the execution and maintenance of the work under the contract:-

- a) Only such engineer and technical assistance as are skilled and experienced in their respective callings, and such sub-agents, foremen and leading hands as are competent to give proper supervision of the work, they are required to supervise, and
- b) Such skilled, semi-skilled and unskilled labour as is necessary for the proper and timely execution and maintenance of works under the contract.

The University Executive Engineer shall have full powers at all times to object to the employment and to require the contractor to remove forthwith from the site, the agent, workman, foreman or any other person employed by the contractor or any sub-contractor, who in the opinion of the University Executive Engineer misconducts himself or

2) i)

Removal of Contractor's employees

is incompetent or negligent in the proper performance of his duties or whose employment is otherwise considered by the University Executive Engineer to be undesirable, and the contractor shall comply with the request forthwith.

No such agent, workman, foreman or other employees after his removal from the work by request of the University Executive Engineer shall be re-employed or reinstated by the contractor for the purposes of and in connection with the contract at any time, except with the prior approval in writing of the University Executive Engineer.

#### Clause 18

(a)

Whole time Qualified technical personnel for supervision of work

(b)

#### Clause 19

Opportunities for other contractor

#### Clause 20

1)

Damage to persons and property

The contractor shall employ for each contract, whole time qualified technical personnel to the satisfaction of the University Executive Engineer for the supervision of the work at the scale give below;

On contracts valuing;

- i) Upto Rs. 7.5 million One diploma engineer
- ii) Exceeding Rs. 7.5 million One senior graduate engineer and One junior graduate engineer

If the contractor fails to employ the qualified technical personnel to the above scale, the University Executive Engineer shall, after giving the contractor 15 days notice to this effect, have the option to employ to make up the deficiency in the number of such persons at the risk and cost of the contractor.

The contractor shall in accordance with the requirements of the University Executive Engineer afford all reasonable opportunities for carrying out the work by any other contractor(s) / specialist contractor(s) executing a part of the original work or ancillary to the work, employees / workmen of such contractor(s) or those of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, who may be employed in execution of, or near the site of work not included in the contract. If, however, the contractor provides any material services / assistance or facilities to any such contractor or to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE or the written request of the University Executive Engineer, he shall be paid a reasonable sum as determined by the University Executive Engineer or paid according to provision in bid schedule if already made therein.

The contractor shall indemnify and keep indemnified the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE against all losses and claims for injuries or damage caused to any person or any property whatever, (other than surface or other damage to land or crops being on the site suffered by tenants of occupants) which may arise out of or in consequence of the construction and maintenance of the works and against all claims, demands, proceedings, damages, costs, charges and expenses whatever in respect of or in relation thereto. Provided always that noting herein contained shall be deemed to render the contractor liable for, or in respect of or to indemnify the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE against any compensation or damages for or with respect to:-

The permanent use or occupation of land by the works or any part thereof or (save as hereinafter provided) surface or other damage as

aforesaid.

b)

The right of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE to construct the works or any part thereof on, over, under, in or through any land.

c)

Interference whether temporary or permanent with any right or light, air, way or water, or other assessment of quasieasement which is the unavoidable result of the construction of the works in accordance with the contract.

d)

Injuries or damage to persons or property resulting from any act or neglect done or committed during the currency of the contract of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, its agents, servants or other contractors (not being employed by the contractor) or for or in respect of any claims, demand , proceedings, damages, costs, charges, and expenses in respect thereof or in relation, thereto.

Provided further that for the purposes of this clause the expression "the site" shall be deemed to be limited to the Area define in the specification or shown on the drawings in which land and crops will be disturbed or damaged as inevitable consequence of carrying out the works.

2)

Indemnity by the UNIVERSITY OF **VETERINARY &** ANIMAL SCIENCES, The UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE will indemnify the contractor for and against all claims, demands, proceedings, damages, costs, charges and expenses in respect of the matters referred to in the provision to sub-clause (1) of this clause.

Note: The limit of various departments for the application of this clause is as follows:-

**Buildings** 

Contracts exceeding Rs. 5

Million

Public Health Engineering

Contracts exceeding Rs. 5 Million Contracts exceeding Rs. 10

2)

Highways Million

Irrigation Housing and Physical Planning

The clause would not apply Contracts exceeding Rs. 5 Million

4)

3)

1)

**LAHORE** 

The clause may be adopted in contracts of smaller amount wherever so directed by the Vice Chancellor.

5)

#### Clause 21

Work to be open to inspection

Contractor or his responsible agent to be present

All works under or in the course of execution or executed in pursuance of the contract, shall at all time be open to inspection and supervision of the University Executive Engineer or his subordinate, and the contractor shall at all times during the usual working hours and at all other times for which reasonable notice of the intention of the University Executive Engineer, his senior of his subordinate to visit the works shall have been given to the contractor, either himself be present to receive orders and instruction or have an agent, duly accredited in writing present for that purpose. Orders given to the contractor's agent shall be considered to have the same force as if they have been given to the contractor himself.

#### Clause 22

i

Giving of notices and Payment of fees

The contractor shall give all notices, and at his own cost pay all fees, required to be given or paid by any national or state statute, ordinance or other laws any regulation or by—laws of any local or other duly constituted authority in relation to the execution of the works or of any temporary works and by the rules and regulations of all public bodies and companies whose property or rights are affected or may be affected in any way by the works or any temporary works.

Compliance with statutes regulations etc.

The contractor shall conform in all respects with the provisions of any such federal, provincial and local statutes, ordinance or law as aforesaid and the regulations or by-laws of any local or other duly constituted authority, which may be applicable to the works, or to any temporary works and with such rules and regulations of Public Bodies and companies as aforesaid and shall keep the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE indemnified against all penalties and liabilities of every kind for breach of any such statutes, ordinance or law, regulation of by-laws.

Payment of income tax and other taxes.

The contractor shall be responsible for the payment of all income tax, super tax and other Government or local taxes arising out of the contract, which shall not be reimbursed to him by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE and the rates and prices stated in the bid schedule shall be deemed to cover all such taxes.

#### Clause 23

Cost of bonds

The cost of various bonds to be entered into and executed between the contractor and the Treasure shall be in all respects, at the expense of the contractor.

#### Clause 24

Change in the constitution of firm

In the case of tender by partners, any change in the constitution of the firm, joint venture, company or corporation shall be forthwith notified by the contractor to the University Executive Engineer for his information.

#### Clause 25

Photographs and advertisements

Photographs of the works shall be taken by permission of the University Executive Engineer. Only signs or other advertisement approved by the University Executive Engineer may be displayed at or near the works. Photographs of the works shall not be published without prior written approval of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, which shall not be unreasonably withheld.

#### ASSIGNMENT AND SUB-LETTING

#### Clause 26

Assignment

The contractor shall not assign the contract or any part thereof or any benefit or interest therein or there under without the prior written consent of the University Executive Engineer.

#### Clause 27

Subletting

the contractor shall not sublet the works or any parts thereof except where otherwise provided by the contract, without the prior written consent of the University Executive Engineer and such consent, if given , shall not relieve the contractor from any liability or obligation under the contract and he shall be responsible for the acts, defaults and negligence of any sub-contractor, his agents, servants or workmen as if they were the acts, defaults or neglects of the contractor, his agents, servants or workmen. Provided always that the provision of labour as a piece work basis shall not be deemed to be a subletting under this clause.

#### Clause 28

1) Quantity of material and workmanship and tests All materials and workmanship shall be of the respective kinds described in the contract and in accordance with the instructions of the University Executive Engineer and shall be subjected from time to time to such tests as the University Executive Engineer may direct at the place of manufacture or fabrication or on the site or at all or any of such places. The contractor shall provide such assistance, instruments, machines, labour and material as are normally required for examining, measuring and testing any work and the quality, weight or quantity of any material used and shall supply samples of material before incorporation in the works for testing, as may be selected and required by the University Executive Engineer.

2) Cost of samples All samples shall be supplied by the contractor at his own cost if the supply thereof is clearly intended by or provided for in the specifications or bill or quantities but if not then at the cost of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

3) Cost of tests The cost of making any test shall be borne by the contractor if such test is clearly intended by or provided for in the specification or bill of quantities and (in the cases only of a test under load or of a test to ascertain whether the design or any finished or partially finished work is appropriate for the purpose which it was intended to fulfill) is particularized in the specifications or bill of quantities in sufficient detail to enable the contractor to price or allow for the same in his tender.

If any test is ordered by the University Executive Engineer which in either:-

4)

a) Not so intended by or provided for; or

Cost of tests etc. not provided for

- b) (in the cases above mentioned) is not so particularized; or
- c) Through so intended by or provided for is ordered by the University Executive Engineer to be carried out by an independent person at any place other than the site or the place of manufacture or fabrication of the material tested.

Then the cost of such test shall be borne by the contractor if the test shows the workmanship or materials not to be in accordance with the provisions of the contract or the instructions of the University Executive Engineer but otherwise by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

#### Clause 29

Constructional material fittings, etc .to conform to representative samples

Before any construction material fitting is brought to the site of work, the contractor shall submit to the University Executive Engineer representative samples of the material fitting, etc. he proposes to use. approved by University Executive Engineer

#### Clause 30

Store to be supplied by Government

The samples after approval will be retained by the University Executive Engineer in his custody the contractor shall be responsible for ensuring that materials and fittings, etc. conforming to such samples are used throughout the contract, failing which the material fittings, etc. will not be accepted and shall be removed forthwith from the site of work if so desired by the University Executive Engineer.

If the specification or the estimate of the work provides for the use of any special description of material and equipment to be supplied from the University Executive Engineer's store or if it is required that the contractor shall use certain stores to be provided by the University Executive Engineer (such materials, stores and equipment 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 meanings or effect of this contract specified in the schedule of memorandum hereto annexed), the contractor shall be supplied with such materials and stores as 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 materials and stores so supplied at the rates specified in the said schedule or memorandum may be set off or deducted from any sums due or to become due, to the contractor, under the contract or otherwise; or against or from the security deposit. All materials supplied to the contractor shall remain the absolute property of the Government, and shall not, on any account be removed from the site of works without the written permission of the University Executive Engineer, and shall at all times be open to inspection of the University Executive Engineer, any such material unused or in perfectly good condition at the time of the completion or termination of the contract shall be returned to the University Executive Engineer 's store, if by a notice in writing under his hand he shall so require; but the contractor shall not be entitled to return any such materials unless with such consent, and shall have no claim for compensation on account of any such materials so supplied to him, as aforesaid being unused by him, or for any wastage in or damage to any such materials.

# Clause 31 Action and compensation payable in cases of bad work.

If it shall appear to the University Executive Engineer or to his subordinate in charge of the work, that any work has been executed with unsound, imperfect, or unskillful workmanship 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 otherwise not in accordance with the contract the contractor shall on demand in writing from the University Executive Engineer specifying the work, materials or articles complained of not withstanding that the same may have been inadvertently passed, certified and paid for, forthwith rectify, remove and reconstruct the work so specified in whole or in part, as the case may require, or as the case may be, remove the materials or articles so specified and provide material as originally contracted or articles at his own proper charge and cost, and in the event of his failing to do so within a period to be specified by the University Executive Engineer in his demand aforesaid, then the University Executive Engineer may rectify or remove and re-execute the work, remove and replace with others, the materials and articles complained of, as the case may be, by his own workman or by other contractor and recover from the contractor towards the cost thereof a sum equal to the sum actually incurred by the University Executive

Engineer (whose certificate as to the amount of the work shall be final and binding on the parties plus departmental charges on the amount so incurred equal to ten (10) percent or such small amount as the University Executive Engineer (whose decision in writing shall be final) may decide, and deduct the same from any money due or that becomes due to the contractor under this contract or on any account whatsoever, due by Government to the contractor. Measures of rectification will be decided by the University Executive Engineer and may include additional work necessary to strengthen or set right the unusual work carried out by the contractor.

#### Clause 32

Applications of labour laws and rules

The contractor shall employ labour, provide all facilities and pay wages to his work people or employees in accordance with the labour laws or enactments relating thereto and rules framed there under, inforce from time to time.

#### Clause 33

1)

Contractor liable for payment of compensation to injured workman or in case of death to his relations. In every case in which by virtue of the provision of section 12, sub section (1) of the workman's Compensation Act 1923, UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE is obliged to pay compensation to a workman employed by the contractor in execution of the work, UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE will recover from the contractor the amount of the compensation so paid and without prejudice to the rights of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE under section 12, sub section (2) of the said Act. UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE shall be at liberty to recover such amount or any part thereof, by deducting it from the security deposit or from any sum due by UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE to the contractor, whether under the contract or otherwise.

2)

UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE shall not be bound to contest any claim made against under section 12, sub section (1) of the said Act, except on the written request of the contractor and upon his giving to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE full security for all costs for which UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE right become liable in consequence of contesting such claims.

#### Clause 34

i.

Use of donkeys and other animal

No contractor shall use donkeys or other animals with breaching of string or thin rope. The breaching must be at least 75 mm wide and should be of tape (Nawar).

No animal suffering from sores, lameness or emaciation or which is immature shall be used on the work.

ii.

#### COMMENCEMENT, TIME AND DELAYS

#### Clause 35

Commencement of work

The contractor shall commence the work on the site within the period named in the memorandum after the receipt by him of an order in writing to this effect from the University Executive Engineer and shall proceed with the same with due diligence and without delay, except as may be expressly sanctioned or ordered by the University Executive Engineer or be wholly beyond the contractor's control.

#### Clause 36

Time for completion

Subject to any requirement in the specification as to the completion of any portion of the works before completion of the whole, the whole of the works shall be completed within the time stated in the memorandum or such extended time as may be allowed under clause 37 thereof.

## Clause 37

Extension of Time for completion

If by reasons of the amount of extra or additional work of any kind or variation of from, quality or quantity of the works or any part thereof ordered by the University Executive Engineer or on the ground of his having been unavoidable hindered in the execution of the work or on any other ground or other special circumstances of any kind whatsoever, or any cause beyond the reasonable control of the contractor, the work is delayed or impeded or the contractor prevented from whether by the University Executive Engineer or otherwise howsoever, or hindered in the execution or completion of the work or any part thereof, whether such delay or impediment or prevention or hindrance occurs before or after the time or extended time fixed for completion the contractor shall apply in writing to the University Executive Engineer within thirty days of the date of such circumstances, the full and detailed particulars of the claim on account of which he desires an extension as aforesaid. The University Executive Engineer with the approval of the competent authority shall, if in his opinion (which shall be final) reasonable grounds shown therefore by the contractor are such as fairly to entitle the contractor to an extension of time for the completion of the work, authorize him from time to time in writing, either prospectively or retrospectively, such extension of time for the completion of the work or any part thereof, as may in his opinion be necessary or proper.

#### Clause 38

No work at night or on Sundays / Public Holidays Subject to any provision to the contrary contained in the contract, none of the permanent work shall save as here in after provided be carried on during the night or on Sundays or public holidays without the permission in writing of the University Executive Engineer save when the work is unavoidable or absolutely necessary for the saving of life or property or for the safety of the works in which case the contractor shall immediately advise the University Executive Engineer. Provided always that the provisions of this clause shall not be applicable in the case of any work which it is customary to carry out by rotary or double shifts.

#### Clause 39

Compensation for delay

The time allowed for carrying out the work as entered in the tender shall be strictly observed by the contractor. The work shall throughout the stipulated period of the contract be proceeded with all due diligence in accordance with the programme of work as approved by the University Executive Engineer or any amended programme of work approved by the University Executive Engineer from time to time (time and quality 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 percent of the amount of contract, subject to maximum of 10% or such smaller amount as the University Executive Engineer (whose decision in writing shall be final) may decide, on the amount of the estimated cost stated in item (b) of the memorandum of work annexed hereto for every day that the work remains un commenced or unfinished after the proper date.

b)

Rate of progress

c)

Compensation for inadequate funds

In order to ensure good progress during the execution of work the contractor shall be bound, in all cases in which time allowed for any work exceeds thirty days, to complete each part of the work or its component, as per programme of work or any revision or amendment to it approved by the University Executive Engineer. In the event of the contractor failing to comply with this condition, without sufficient reasons acceptable to the University Executive Engineer, he shall be liable to pay as compensation an amount equal to one per cent or such smaller amount as the University Executive Engineer (whose decision in writing shall be final) may decide on the estimated cost of the work as named in the item (b) of the memorandum hereto annexed for every day that the due quantity of work remains incomplete. Provided always that the entire amount of the compensation to be paid under the provisions of this clause shall not exceed ten percent of the estimated cost stated in item (b) of the memorandum of work annexed hereto.

If the funds required for completion of contract are not provided within two years of the stipulated date of completion, contractor may ask for finalization of his contract. All recoveries due from contractor (mobilization, secured advance, machinery hire charges, etc) will be made before finalization of contract.

#### CERTIFICATE OF COMPLETION

Clause 40 Certification of completion of work

Without prejudice to the right of the UNIVERSITY VETERINARY & ANIMAL SCIENCES, LAHORE under any such clause(s) herein contained, as soon as in the opinion of the University Executive Engineer, the works shall have been substantially completed and shall have satisfactory passes any final test that may be prescribed by the contract, the University Executive Engineer will issue to the contractor a certificate of completion in respect of work, and the period of maintenance of work shall commence from the date of such certificate, provided that the University Executive Engineer may give such a certificate with respect to any independent part of the works before the completion of the whole of the works, and when any such certificate is given in respect of such a part of the works, such part shall be considered as completed and the period of maintenance of such part shall commence from the date of such certificate. Provided also that a certificate of completion given in accordance with the foregoing provisions of any part of the works shall not be deemed to certify completion of any ground or surface requiring reinstatement, unless such certificate shall expressly so state. Provided further that no such certificate shall be given nor shall the works or any or tis parts be considered to be complete until the contractor shall have removed from the premises on which the works or any such parts shall be executed, all scaffoldings, surplus materials of all kinds and rubbish, buildings and other construction material of all kinds and cleaned off the dirt from all woodwork, doors, windows, walls, floors, or other parts of any building or buildings, or road work and road structures, water supply, sewerage or drainage works, sanitary installation, gas and electric fittings, in, upon or about which the works are to be executed, or which he may have had possession for the purpose of the execution thereof, nor until the works shall have been measured by the University Executive Engineer whose measurements shall be binding and conclusive against the contractor.

If the contractor shall fail to comply with the requirements of this clause as to the removal of scaffoldings, surplus materials of all kinds and rubbish as aforesaid and cleanings of dirt on or before the date fixed for the completion of the works, the University Executive Engineer may at the expense of the contractor, remove such scaffoldings or surplus materials of all kinds and rubbish and dispose of the same as he thinks dirt, and clean off such dirt as aforesaid and the contractor shall forthwith pay the amount of all expenses so incurred, and shall have no claim in respect of any such scaffoldings or surplus materials of all kind as aforesaid, except for any sum actually realized by sale thereof.

The University Executive Engineer shall have power to make any

alteration in, omission from, addition to, or substituted for, the original

specification, drawing designs and instructions that may appear to him

to be necessary or advisable during the progress of the work, and the

#### ALTERATIONS, ADDITION AND COMMISSIONS

#### Clause 41

Alternation in specifications and drawings

Alternations omissions of substitution do not invalidate the contract

Extension of time in consequence of alterations

contractor shall be bound to carry out the works in accordance with any instructions which may be given to him in writing signed by the University Executive Engineer and such alternations, omission, additions or substitutions shall not invalidate the contract, and any altered, additional or substituted work which the contractor may be

additions or substitutions shall not invalidate the contract, and any altered, additional or substituted work which the contractor may be directed to do in 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 the same rates as are specified in the tender (bid schedule for the main work). The time for the completion of the work shall be extended in the proportion that the altered, additional or substituted work bears to the original contract

work and the certificate of the University Executive Engineer shall be

conclusive as to such proportion.

And, if the altered, additional or substituted work includes any item of work, for which no rate is specified in this contract, then such items of work shall be carried out at the item rates enforced at the time of receipt of tenders with reference to which the tender for the work was submitted by the contractor.

If such altered, additional or substituted item(s) of work is not entered in the bid schedule or not available in MRS enforced at the time of receipt, then the contractor shall within seven days of the date of receipt of the orders to carry out the work inform the University Executive Engineer or the rate which it is his intension to charge for such items of work, and if the University Executive Engineer does not agree to this rate, or the approval to this rate (or the negotiated rate, if any), is not communicated to the contractor within a period of thirty (30) days reckoned from the date of receipt by the University Executive Engineer of the proposed rate, the University Executive Engineer shall by a notice in writing be at liberty to cancel his order to carryout such item of work and arrange to carry it out in such a manner as he may consider advisable; provided always that if the contractor shall commence work or incur an expenditure in regard thereto, before the rate shall have been determined as lastly hereinafter mentioned, he

Rate of works not in schedule of rates, bid schedule or in the estimates shall do so at his own risk and cost.

No deviation from specification stipulated in the contract or additional items of work shall be carried out by the contractor unless the rate of the substituted, altered or additional items have been approved in writing failing which UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE will not be bound to entertain any claim on this account. The interpretation of the University Executive Engineer in the event of any dispute due to any ambiguity in the specification or nomenclature shall be binding and final.

#### Clause 42

No compensation for alteration in or restriction of work to be carried out, if variation does not exceed 20% If at any time after the commencement of the work, the University Executive Engineer shall for any reason whatsoever, not require the whole thereof as specified in the tender (bid schedule annexed hereto) to be carried out, or increase or decrease in the quantity of work included in the contract or omit any such work, or change the contract or quality or kind of any such work, or change the levels, lines position and dimensions of any part of the works, or require the contractor to execute additional work of any kind necessary for the completion of the work, the University Executive Engineer shall give notice in writing of this fact to the contractor, who shall have no claim to any payment or compensation whatsoever on account of any profit or advantage which he might have derived from the execution of the work in full, but which he did not derive in consequence of the full amount of the work not having been carried out neither shall he have any claim for compensation by reasons of any alteration having been made in the original specification, drawings, designs and instructions which shall involve any curtailment or increase of the work, as originally contemplated; nor shall the contractor be entitled to any adjustment in the unit rate / price or amount of the contract, if the aggregate effect of all such alteration, additions omissions or adjustments (other than those arising out by reasons of price variation under clause 55 hereof) on completion of the whole of the works, does not exceed 20 percent of the sum named in paragraph 1 (one) of this tender.

Variation Exceeding 20%

If, on completion of the whole of the works, it shall be found that a reduction or increase greater than 20 percent of the sum named in paragraph 1 of the tender results from the aggregate effect of all increases, decreases omissions or adjustments (other than those arising out because of price variation under clause 55 hereof), as a result of the requirement of the University Executive Engineer the amount of the contract price shall be adjusted by such sum(s) as may be determined by the University Executive Engineer after approval from competent authority and the contractor. In the event of disagreement, the campus committee shall fix such sum as shall, in his opinion, be reasonable and proper, regard being had to all materials and relevant factors including the contractor's cost and over heads.

#### MAINTENANCE AND DEFECTS

#### Clause 43

1)

The period of maintenance mentioned in item (i) of the memorandum hereto annexed shall be calculated from the date of completion of the works certified by the University Executive Engineer in accordance with clause 40 hereof or in the event of more than one certificate

Period of Maintenance

having been issued by the University Executive Engineer under the said clause, from the respective dates so certified, and in relation to the period of maintenance the expression the "work" shall be construed accordingly.

2) Execution of work of repair etc.

The works shall at or as soon as practicable after expiration of the period of maintenance be delivered to the University Executive Engineer in as good perfect condition (fair and wear tear excepted) to the satisfaction of the University Executive Engineer as that in which they were at the commencement of the period of maintenance, the contractor shall execute all such works of repair, amendment, reconstruction, rectification and making good of defects, imperfection, shrinkage, other faults as may be required of the contractor in writing by the University Executive Engineer during the period of maintenance or within fourteen days after its expiration as a result of an inspection made by or on behalf of the University Executive Engineer prior to its expiration.

3)

Cost of execution of works or repair etc.

All such works shall be carried out by the contractor at his own expense, if the necessary thereof shall, in the opinion of the Engineer- in-charge, be due to use of materials or workmanship not in accordance with the contract or to neglect or failure on the part of the contractor to comply with any obligation expressed or implied on the contractor's part under the contract. If in the opinion of the University Executive Engineer such necessary shall be due to any other cause, the value of such work shall be ascertained and paid for, as if it were an additional work.

4)

Remedy of contractor's failure to carry out work required

If the contractor shall fail to do any such work as aforesaid, required by the University Executive Engineer, the University Executive Engineer shall be entitled to carry out such work by his own workmen or by other contractor(s) and if such work is a work which the contractor should have carried out at the contractor's own cost, shall be entitled to recover from the contractor towards the cost thereof a sum equal to the actual expenditure so incurred by the University Executive Engineer (whose certificate as to the amount of the work shall be final and binding on the parties) and may deduct the same from any money due or that may become due to the contractor.

#### Clause 44

Contractor liable to make good damages and for any imperfection noticed during period of maintenance If the contractor or his work people, or servant shall break, deface, injure or destroy an part of a building in which they may be working or any building, road, road work, road structure, water supply, sewerage and drainage works, sanitary fitting and electric installation, fences, enclosures, water pipes, cables, drains, electric or telephone posts or any works, trees, grass or grass land, or cultivated ground contiguous to the premises on which the work, or any part of it is being executed, or if any

damage shall happen to the work, while in progress from any cause whatsoever or any imperfections become apparent in it within the specified period of maintenance in item No.(i) of the memorandum hereto annexed after a certificate, final or otherwise of its completion shall have been given by the University Executive Engineer as aforesaid, the contractor shall make the same good at his own expense, or in default, the University Executive Engineer may cause the same to be made good by other workmen and deduct the expenses (of which the certificate of the University Executive Engineer shall be final) from any sums that may then, or at any time thereafter may become due to the contractor, or from his security deposit.

#### ADVANCES TO CONTRACTORS

#### Clause 45

Secured advance on materials brought to site

Should the contractor, whose contract is for finished work require an advance on the security of material of imperishable nature brought by him to the site, the University Executive Engineer shall assess the value of such materials and the contractor may be paid an advance upto an amount not exceeding seventy five percent (the decision of the Engineer-in- charge as to this percentage shall be final) of the value of the materials assessed by the University Executive Engineer. The materials shall remain the property of the University of Veterinary & Animal Sciences, Lahore and the contractor shall not remove it from the site without the written permission of the University Executive Engineer. The contractor shall be responsible for any loss to the materials due to the contractor postponing the execution of the work or to the shortage of or misuse of the materials and against the expenses entailed for their proper watch and safe custody.

The recovery of the amount of such advance shall be made from the contractor's bill for the work done, as the materials are used in the work.

#### Clause 45 (a)

Mobilization Advance

Mobilization Advance may be given in case of works costing more than 20.00 million upto 10% of the contract amount in the prescribed manner as below.

1. Upon the written request of the Contractor, the Treasure UVAS Lahore shall certify and shall pay to the Contractor a Mobilization Advance in the sum of 10% of the Contract Price stated in the acceptance letter for the execution of this work. The amount inclusive of interest at the rate of 10% per annum of the reducing balances shall be recovered in five equal installments from five running bills of the contractor, and if the number coming bills is less than five, then the balance is recoverable from the contractor, till entire amount is recovered The recovery of the amount of such advance shall be made from the contractor's bill for the work done, as the materials are used in the work.

Provided always that no such certification shall be issued by the Treasure unless and until such time as:

- a) the Contractor has signed the Contract Agreement, and
- the Contractor has provided the Performance Security to the satisfaction of the University of Veterinary & Animal Sciences, Lahore m accordance with Clause 7 and
- c) the Contractor has provided to the University of Veterinary & Animal Sciences, Lahore a bank guarantee for this Mobilization Advance
- d) The Mobilization Advance shall be used by the Contractor for the sole purpose of the mobilization

for the personal. labour. Equipment, materials. Temporary Works other facilities and necessary for the commencement and execution of the works and if, in the opinion of the Engineer Incharge, any such payment (or part thereof) is not being so used by the Contractor, of if the Contractor shall otherwise fail to mobilize for the due commencement and execution of the works provisions of the accordance with the Contract. the University of Veterinary entitled to Sciences, Lahore shall be recover amount of any, such payment (or part thereof) security of the provided under conditions of the contract agreement or by anv other means as the University of Veterinary & Animal Sciences, Lahore shall decide.

Provided always that if, in the opinion of such payment Engineer Incharge, any (or thereof) has not been so used by the Contractor or if (in the opinion of the Engineer) the Contractor failed mobilize for the has otherwise to of Works and execution commencement the accordance with the provisions of the Contract, Engineer Incharge shall notify with a copy to next higher authority Contractor. i.e. Project Director or Campus Committee Contractor's the nature of the default, also that, if the Contractor has rectified such default within 14 days of receipt of such notification from the Engineer Incharge, then no such default shall be considered to have occurred for the purpose of this

#### **Payment of Mobilization Advance**

2. Following certification by the Treasure UVAS Lahore in accordance with sub-clause 1 of this Clause, the Mobilization Advance a sum equal to 10% of the Contract Price stated in the Letter of Acceptance shall be paid to the Contractor by the University of Veterinary & Animal Sciences, Lahore.

Provided always that no such mobilization shall be considered complete until such time as

the programme to be provided by the Contractor pursuant to clause 8 has been approved by the University Executive Engieer.

#### **Recovery of Mobilization Advance**

3. The University Executive Engineer shall recover the Mobilization Advance by deductions from the bills of the contractors in accordance with the provisions of this Clause in addition to the amount to be recovered with respect to interest or other charges. The first installment of deductions against Mobilization Advance shall be effected in the next Running Bill following that in which the Mobilization Advance is given.

Provided also that, if any part of Mobilization advance remains outstanding following certification by the University Executive Engineer of the statement at Completion then the University of Veterinary & Animal Sciences, Lahore or the Engineer Incharge shall be entitled to recover the amount so outstanding by means of the security provided under the clauses of this contract or by any other means that the University of Veterinary & Animal Sciences, Lahore or the University Executive Engineer shall decide.

#### **Security for Mobilization Advance**

The Contractor shall at his own cost provide a Bank guarantee (of a scheduled Bank as security to the University of Veterinary & Animal Sciences, Lahore for the amount of the Mobilization Advance)

#### **PAYMENTS**

#### Clause 46

Bills to be on prescribed form

#### Clause 47

Bills to be submitted monthly

The contractor shall submit all bills on the form prescribed by the University Executive Engineer to be had on application at the office of the University Executive Engineer and the charges in the bills shall always be entered at the rates specified in the tender (bid schedule) or in the case of any extra work ordered in pursuance of the conditions and not mentioned or provided for the tender, at the rate hereinafter provided for such works.

The contractor shall submit each month on or before the date fixed by the University Executive Engineer a bill, on the basis of measurements carried out by the contractor through his own staff, for all works executed in the previous month, and the University Executive Engineer shall take or cause to be taken the requisite measurements for the purpose of having the same verified and the claim, as for as admissible adjusted, if possible, before the expiry of ten days from presentation of the bill subject to the condition laid down in item(s) of the memorandum of work. If the contractor does

not submit the bill within the time fixed as aforesaid, the University Executive Engineer may depute a subordinate to measure up the work in the presence of the contractor or otherwise and the University Executive Engineer may prepare a bill from such measurements, which shall be binding on the contractor in all respect.

#### Clause 47-A

Payment of items with imbalance rates

If a contractor quotes such disproportionate rate in his tender which deviate from the rate provided in the technically sanctioned estimate, the payment of items whose rates are lower will be made at tendered rate(s) in full on the execution of items (s) but the payment of item whose rates are **higher** shall be made at the rates depicted in technically sanctioned estimate, on the execution of such items, the balance payment shall be withheld by the University Executive Engineer till the completion of the work of items for which low rates have been quoted.

#### Clause 48

Deduction of security deposit

At the time of making any payment to the contractor for the work done under this contract, the University Executive Engineer shall retain from the amount so payable to the contractor, the amount of security deposit at the percentage rate specified in item (d) of the memorandum of work annexed hereto. The earnest money of the contractor on execution of the contract, will however, be adjusted toward the amount of such security deposit to be retained from the amount of his first bill of the work done by him and payable to the contractor under this contract.

All compensations of other sums of money payable by the contractor to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE under the terms of this contract may be deducted from the amount of his security deposit of the contract or from any sums which may be due or may become due to the contractor by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE on any account whatsoever, and in the event of his security deposit being reduced by such deduction, the contractor shall, within ten days thereafter, make good in cash any sum or sums which may have been deducted from his security deposit, or may be made good through additional deductions from his bill or dues.

#### Clause 49

Conversion of security deposit into profit bearing securities.

If the contractor so desires and makes a written request to the University Executive Engineer to the effect that the amount of security deposit retained from the bills of the contractor may be converted into the recognized form of profit bearing security at the cost of the contractor, the amount of, security deposit retained from bills of the contractor shall be deposited in any of the following banks:-

- 1) National Bank of Pakistan Ltd.
- 2) Habib Bank Ltd.
- 3) United Bank Ltd.
- 4) Muslim Commercial Bank of Pakistan Ltd.
- 5) Allied Bank of Pakistan Ltd.
- 6) The Bank of Punjab.

and pledged in the name of the Treasurer UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

#### Clause 50

a)

b)

c)

Refund of Security deposit.

The amount retained as security deposits shall not be refunded to the contractor before the expiry of six (6) months in the case of original works valuing up to Rs. 5 million and twelve 12 months or even more, as may be determined by the University Executive Engineer with the prior approval of the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, in the case of works valuing above Rs. 5 million, after the issue of the certificate of completion of the work under clause 40 hereof by the University Executive Engineer provided that in case the contractor is required by the University Executive Engineer to rectify any imperfection, damage, defects or other faults in work, etc. during the period of maintenance, the security deposit shall not be refunded till the contractor has fulfilled his obligations under clause 43 and 44 hereof to the satisfaction of the University Executive Engineer.

Should the contractor so apply in writing to the University Executive Engineer the amount of security deposit will be refunded to the contractor three (3) months after the issue of certificate of completion of work by the University Executive Engineer under clause 40 subject to the production of bank guarantee from a scheduled bank in Pakistan to the satisfaction of and in the form suitable to the University Executive Engineer, for the same amount covering the balance of period of maintenance, to the effect that the contractor shall fulfill his obligations under clause 43 and 44 of the contract.

Subject to the conditions stipulated in sub-clause (a) of this clause, in the case of contractors for maintenance and repair works, the security deposits would be refunded to the contractor after the expiry of three (3) months of the issue of certificate of completion of work by the University Executive Engineer.

#### Clause 51

Payment on intermediate certificate to be regarded as advance.

The contractor shall on submitting the bill be entitled to receive a monthly payment proportionate to the part thereof then approve and passed by the University Executive Engineer, subject to the condition laid down in item(s) of the memorandum, whose certificate of such approval and passing of the sum so payable, shall be final and conclusive against the contractor. But all such intermediate payments shall be regarded as payment by way of advance against the final payment only, and not as payment for work actually done and completed and shall not preclude the requiring of bad, unsound, imperfect or unskillful work to be removed and taken away and reconstructed, or re-erected or 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 way the power of University Executive Engineer, under these conditions or any of-them as to the final settlement and adjustment of the accounts or otherwise, or in any other way vary or affect the contract

#### Clause 52

Final bill to be submitted within. one month

The final bill shall be submitted by the contractor within one month of the date fixed for completion of the works, otherwise the University Executive Engineer's certificate of the measurement and of the total amounts payable for the works accordingly, shall be final and binding on all parties.

Contractor

#### Clause 53

Procedure for payment to firms

The department may refuse or suspend payment on account of a work when executed by a firm, or by a contractor on described in their tender as a firm, unless receipts are signed by all the parties, or one of the partners or some other person producing power of attorney enabling him to give actual receipts on behalf of the firm.

#### Clause 54

Sums payable by way of compensation to be considered as reasonable compensation without reference to actual loss All sums payable by way of compensation under any of these conditions, shall be considered as reasonable compensation to be applied to the use of Government, without reference to the actual loss or damage sustained, and whether or not any damage shall have been sustained.

#### VARIATION IN PRICES OF SPECIFIED MATERIALS

#### Clause 55

1) Price Variation Where any variation (increase or decrease), to the extent of 5% or more, in the price of any of the item mentioned in sub-clause (2) below takes place after the acceptance of tender and before the completion of contract, the amount payable under the contract shall be adjustable to the extent of the actual variation in the cost of the item concerned.

No price variation under the clause shall be admissible except in respect of the following items:-

- 2) i. Cement
  - ii. Steel
    - a) M. S Bars (plain and deformed)
    - b) M.S. sections.
    - c) High Tensile steel wire.
    - d) M.S and G.I. Pipes,
  - iii. Asbestos Cement Pipes.
  - iv. P.V.C. Pipes.
  - v. R.C.C/P.C.C. Pipes.
  - vi. Bitumen.
  - vii. High Speed Diesel.
  - viii. Bricks
    - a. Bricks
    - b. Tiles
    - c. Gutka
  - ix. Stone aggregate
    - a. Stone metal for sub base.
    - b. Stone metal foe base course.
    - c. Crushed bajjri.
  - x. labour

The base price for the purposes of calculation of the price variation shall be the price prevalent in the month during which the last day of the submission of tender falls.

The price variation under this clause shall be worked out on the basis of the price of the particular item prevalent in a particular District on first day of each month as per price list of such manufacturers or suppliers at such places as are notified by the Finance Department from time to time. The prices of the manufacturer or supplier at the place(s) so notified shall be applicable to the particular District or the entire Punjab (where district

4)

wise list of manufacturers or suppliers has not been notified).

If no notification in respect of any of the item mentioned in sub-clause (2) is issued under sub-clause (4) no price variation shall be admissible in respect of that item during that month.

5)

The amount payable or deductible in respect of items No.(i) to (x) of subclause (2) shall be calculated on the basis of the quantity of the item actually consumed on the work during the month.

6)

The amount payable or deductible in respect of item No.(v) of sub clause (2) shall be calculated on the basis of the actual quantity of cement and steel bars used in the manufacture of the pipes during the month.

7)

No escalation shall be allowed to the contractor in respect of the period extended for the completion of the work due to his own fault.

If, under the existing codal rules, secured advance is paid on all or any of the imperishable items mentioned at (ii) to (v) &(vii) to (ix) in sub-clause (2)above, no price variation shall be admissible on such item(s) in respect of the quantity or quantities for which secured advance has been paid to the contractor.

8)

The increase or decrease in the contract price subsequent to any increase or decrease in the cost of high speed diesel shall be calculated from the increase or decrease in the basic price of high speed diesel using the following formula:

9)

Increase or decrease =  $a \times VOW \times (CPD-BPD) / BPD$  in contract price.

Where:

10)

VOW= the value of the work for which payment has been certified by the University Executive Engineer, executed subsequent to such increase or decrease in the Basic Price as shall be obtained by applying the approved unit rates and prices entered in the measurement book.

CPD=

Current price of high speed diesel, and

BPD= Factor Basic price of high speed diesel. a=0.15 for Highway / Road works &

a=0.15 for Fighway / Road works & a=0.07 for Buildings and R.C.C structures &

a=0.07 for Irrigation Works

The increase or decrease in the contract price subsequent to any increase or decrease in the cost of labour shall be calculated from the increase or decrease in the basic price of labour using the following formula

Increase or decrease=B x VOW x (CLR-BLR) / BLR in contract price.

Where:

VOW=

the value of the work for which payment has been certified by the University Executive Engineer, executed subsequent to such increase or decrease in the Basic Price as shall be obtained by applying the approved unit rates and prices entered in the measurement book.

11)

CLR= Current labour rates for unskilled worker (as published by Bureau of Statistics).

BLR= Basic labour rates of unskilled worker on the date of receipt of

tenders (as published by Bureau of Statistics)

Factor B=0.15 both for building & road works &

Factor B=0.15 for Irrigation works

#### Clause 56

Bills to be submitted monthly

### CLAIMS OF CONTRACTOR

The contractor shall deliver in the office of the University Executive Engineer on or before the 10th day of every month during the continuance of the work covered by this contract a return in such form as the University Executive Engineer may from time to time prescribe showing details of any rate, amount and work claimed as extra, and such return shall also contain the value of such work which the contractor may consider himself to be entitled up-to the end of the previous month, which value shall be based upon the rates and prices mentioned in the contract (bid schedule) or the rate determined pursuant to clause 41 hereof. The contractor shall include in such monthly returns particulars of all claims of whatsoever kind and howsoever arising, which at the date thereof he has or may claim to have, against the University Executive Engineer under or in respect of, or in any manner arising out of the execution of the works, and the contractor shall be deemed to have waived all claims not included in such return and will have no right to enforce any claim not so included, whatsoever be the circumstances.

#### Clause 57

Claims for payment of extra ordinary nature

#### Clause 58

Time limit for unforeseen claims

#### Clause 59

Claim for compensation for delay in the execution of work

No claim for payment of extra ordinary nature, such as claim of a bonus for extra labour employed in completion of the work before the expiry of the contractual period at the request of the Engineer-in charge or claim for compensation where the work has been temporarily brought to a stand still though no fault of the contractor, shall be allowed, unless and to the extent that the same shall have been expressly sanctioned by the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

Under no circumstances whatsoever shall the contractor be entitled to any compensation on account of the contract unless the contractor shall have submitted claim in writing to the University Executive Engineer within one month of the cause of such claim occurring.

No compensation shall be allowed for any delay in execution of the work on account of water standing in borrow pits or compartment. The rates inclusive for hard or rocky soil, excavation had, sub soil water or water standing in borrow pits, and no claim for extra rate shall be entertained, unless expressly verified by University Executive Engineer and confirmed by Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

#### **REMEDIES AND POWERS**

#### Clause 60

Action when whole of security deposit is forfeited

In any case in which under any clause or clauses of the contract, the contractor shall have rendered himself liable to pay compensation amounting to whole of the security deposit or in the opinion of the University Executive Engineer has abandoned the contract, or is not executing the works in accordance with the contract or is presently or flagrantly neglecting to carry out his obligations under the contract, or

if the contractor employs any employee of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE in defiance to the provisions of clause 32 thereof, the University Executive Engineer on behalf of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE, may, after giving fourteen days notice in writing to the contractor, rescind the contract (of which rescission notice in writing to the contractor under the hand of the University Executive Engineer shall be conclusive evidence and in which case the security deposit of the contractor, shall stand forfeited ,and be absolutely at the disposal of UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE. And in case the contract shall be rescinded under the provisions aforesaid):-

The contractor shall have no claim to compensation for any loss sustained by him by reasons of his having purchased or procured any materials, or entered into any engagement, or made any advances on account of or with a view to the execution of the works or the performance of the contract.

The contractor shall not be entitled to recover, or be paid any sum for any work actually performed under this contract, unless and until the University Executive Engineer will have certified in writing. The performance of such work and the value payable in respect thereof, and he shall only be entitled to be paid the value so certified, after deducting there from the amount of aforesaid compensation and other charges duly ascertained and certified by the University Executive Engineer to be payable by the contractor. But if such sum payable by the contractor for any losses, compensation or any other charge shall exceed the sum for any work actually performed under the contract and certified by the University Executive Engineer, the amount of such excess shall be deemed a debt due by the contractor to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE and shall be recovered accordingly.

#### Clause 61

a)

Work at the risk and expense of the contractor

i.

In every case in which the contract should be rescinded under clause 60 hereof and in the opinion of the University Executive Engineer such work should be done at the risk and expense of the contractor without thereby avoiding the contract or relieving the contractor from any of his obligation or liabilities under the contract or affecting the rights and powers conferred on the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE or the University Executive Engineer by the contract, the University Executive Engineer on behalf of the Government, after giving fourteen days notice in writing to the contactor, shall have powers to adopt any of the following courses, as may in the opinion of the University Executive Engineer be desirable:

To measure up the work of the contractor and to take such part thereof, as shall be executed out of his hands and to give it to another contractor to complete, in which case any expenses which may be incurred in excess of the sum which would have been paid to the original contractor, had the whole of the work been executed by him (of the amount of which excess, the certificate in writing of the University Executive Engineer shall be final and conclusive) shall be borne and paid by the original contractor, and may be deducted from any money due to him by the UNIVERSITY OF VETERINARY &

Contractor

University Executive Engineer

ANIMAL SCIENCES, LAHORE, under the contract or otherwise, or from his security deposit or from the value of the performance security given by the contractor under clause 7 hereof.

h)

To employ labour paid by the department and to supply materials or supply/arrange tools and plants to carry out the works or any part of the works, debiting the contractor with the cost of the labour and the price of the materials and cost of supply/arrangement, operation and maintenance of tools and plants of the amount of which cost and price, a certificate of the University Executive Engineer shall be final and conclusive against the contractor, plus departmental charges on the amount so incurred equal to ten percent or such smaller amount as the University Executive Engineer (whose decision in writing shall be final) may decide, and crediting him with the value of the work done, in all respects, in the same manner and at the same time and rates, as if it had been carried out by the contractor under the terms of his contract, the certificate of the University Executive Engineer as to the value of the work done shall be final and conclusive against the contractor.

In the event of any of the above courses mentioned in this clause being adopted by the University Executive Engineer, the contractor shall have no claim to compensation for any loss sustained by him by reason of his having purchased or procured any materials, or entered into any engagement, or made any advances on account of, be with a view to, the execution of the works or the performance of the contract.

#### Clause 62

Contractor remains liable to pay compensation if action is not taken under clauses In any case in which any of the powers, conferred upon the Engineer-in-charge by clause 60 or by pare (a) of clause 61 hereof, shall have become exercisable and the same shall not be exercised, the non-exercise thereof shall not constitute a waver of any of the conditions hereof, and such powers shall not withstanding be exercisable in the event of any future case of default by the contractor for which, by any clause or 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.

Power to take possession or require removal of or sell contractor's plant etc.

In the event of the University Executive Engineer putting in force either of the power vested in him under clause 60 or para (a) of the preceding clause, he may, if he so desires, take possession of all or any tools,, constructional plants, materials and stores, in or upon the works, or the site thereof, or belonging to the contractor, or procured by him and intended to 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 case of those not being applicable at current market rates to be certified by the University Executive Engineer whose certificate shall be final otherwise the University Executive Engineer, may by notice in writing to the contractor or his clerk of the works, foreman or other authorized agent, require him to remove such tools, construction plants, 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 University Executive Engineer 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 Executive Engineer as to the expenses of any such removal, and the amount of the proceeds and expenses of any such sale, shall be final and conclusive against the contractor

If the contractor shall, in defiance of the University Executive

Engineer's instructions to the contrary or without his written approval,

assign or sublet his contract or attempts to do so; or become insolvent,

or commence any insolvency proceedings or make

#### Clause 63

Contract may be rescinded and security deposit forfeited for subletting, bribing or if contractor becomes insolvent

composition with his creditors, or attempts so to do; or if any bribe, gratuity, gift, loan prerequisite, reward or advantage, pecuniary or otherwise, shall either directly or indirectly be given, promised or offered by the contractor, or his servants or agents to 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 University Executive Engineer may thereupon by notice in writing rescind the contract, and the security deposit of the contractor shall thereupon stand forfeited and be absolutely at the disposal of UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE and the same consequence shall ensue as if the contract had been rescinded under clause 60 hereof and in addition to the contractor shall not be entitled to receive or be paid for any work therefore actually performed under the contract.

#### Clause 64

Deduction of amount due to Govt, on any account whatsoever to be permissible from any sums payable to the contractor Any excess payment made to the contractor inadvertently or otherwise, under this contract or on any account whatsoever, and any other sum found to be due to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE by the contractor in respect of this contract, or any other contract or work order, or on any account whatsoever, may be deducted from any sum whatsoever payable by UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE to the contractor, either in respect of this contract or any work order or contract, or on any other account by any other department of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE/Government; or recovered from the contract or as arrears of land revenue.

#### SETTLEMENT OF DISPUTES

#### Clause 65

Procedure in disagreement.

In the event of any disagreement between the University Executive Engineer and the contractor arising out of the contract, the matter shall first be referred to the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE for decision who shall, after making such enquiries, as he may deem fit, give its decision in writing not later than three months after the reference is made to him. The period for decision of the case by the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE may, however, be extended by the Vice Chancellor, UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE under special conditions according to the circumstances, justification, available in each case. The contractor shall forthwith give effect to the decision of the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE and shall proceed with due diligence, whether arbitration is intended or not.

Contractor dissatisfied with the decision of Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE Increase in amount of claim once preferred not allowed

Reference to arbitration

Disputes for arbitration limited

If the contractor be dissatisfied with the decision of the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE or if its decision is not forthcoming within the stipulated or extended period/periods and desires arbitration under the arbitration clause as hereinafter provided, he shall give notice in writing of such arbitration intention to Vice Chancellor within a period of twenty eight days of the receipt of the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES. LAHORE decision or in case no decision is given, at the end of the period or periods within which the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE was to give its decision. The said notice shall contain the cause of action, material facts of the case and relief sought, failing which the decision of the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE shall become final, conclusive and binding, and the contractor shall be deemed to have forfeited or departed from the claim in excess of that allowed by the Works Committee UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE. The subsequent inflation/increase in the amount of claim once preferred in the said notice shall not be allowed nor shall any other claim in respect of the same work be entertained from the contractor at any later stage.

A reference to arbitration shall be made by the contractor in writing not later than three months after the completion of the work. Failure to make such a reference within this period shall be deemed to mean that the contractor has waived all claims in respect of all disputes.

Disputes which may be referred to arbitration shall be limited to:-

- Any question, difference, or objection, whatsoever which shall arise in any way, connected with or arising out of the contract or/and
- ii. The meanings of the operation of any part of the contract; or/and
- iii. The rights, duties and liabilities of either party to the contract; or/and
- iv. Whether the contract should be terminated or has been rightly terminated and as regards the rights, and obligations of the parties as a result of such termination.

Provided that those matters for which provision has been made in the contract for final and binding decision by the University Executive Engineer shall be excluded from arbitration.

- (b) The venue of arbitration shall be in Lahore.
- The dispute shall be referred to the award of two arbitrators, to be appointed one each by University of Veterinary & Animal Sciences, Lahore the and contractor. In the case of the said two arbitrators not agreeing, the case shall be referred to the award of an umpire who shall be officer the Punjab Works an Department not below the Rank of Chief Engineer to be

Arbitration

appointed by the University of Veterinary & Animal Sciences, Lahore and the contractor. The decision of the two arbitrators, umpire, as the case may be shall be final and binding on the parties concerned. Where the matter involves claim for the payment or recovery or deduction of money only, the amount, if any awarded in the arbitration shall be recoverable in respect of the matter so referred.

| chedule showing (approximately) materials to be supplied from the UVAS, Lahore Stor works contracted to be executed and the rates at which they are to be charged for |   |  |  |  |  |  |  |
|---|---|--|--|--|--|--|--|
| (See clause 30)   |   |  |  |  |  |  |  |
| Rates at which the material will be charged to the contractor   | Place of delivery   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   |   |  |  |  |  |  |  |
|   | (See clause 30)  Rates at which the material will be charged to the |  |  |  |  |  |  |

**Note:** The person or firm submitting the tender should see that the rates in the above schedule are filled up by the Engineer in-charge before the issue of the form prior to the submission of the tender.

# SCHEDULE SHOWING EQUIPMENT TO BE SUPPLIED BY THE GOVERNMENT AT THE REQUEST OF THE CONTRACTOR (SEE CLAUSE 30)

The Equipment and/or constructional plant listed in following table are available with the Employer and can be provided to the contractor at his request, at the rental rates and places set out therein.

| Item          | Description  | Rental Price   | Place of<br>Delivery |
|---------------|--|--|----------------------|
| 1(One)        | 2 (Two)  | 3 (Three)  | 4 (Four)             |
| 1.            | Road Roller Capacity 8-10 (eight to ten) tons or lower | Rs. 554/50<br>(Rupees Five hundred and fifty<br>four paisa fifty only) |                      |
| 2<br>(Two)    | Road Roller Capacity 10-12 (ten to twelve) tons.       | Rs.632/- (Rupees Six hundred and thirty two only)                      |                      |
| 3 (Three)     | Road Roller Capacity 15-18 (fifteen to eighteen) tons  | Rs. 754/- (Rupees Seven hundred and fifty four only).                  |                      |
| 4<br>(Four)   | Sheep foot Roller                                      | Rs. 240/-<br>(Rupees Two hundred and forty only).                      |                      |
| 5.<br>(Five)  | Tar Boiler.  | Rs. 150/-<br>(Rupees One hundred and fifty only)                       |                      |
| 6.<br>(Six)   | Vibratory Road Roller<br>Self Propelled (Russian)      | Rs. 740/-<br>(Rupees Seven hundred and forty only)                     |                      |
|               | (Italian)  | Rs. 1450/- (Rupees One thousand four hundred and fifty only)           |                      |
| 7.<br>(Seven) | Vibratory Road<br>Roller<br>(Toe type)                 | Rs. 480/- (Rupees Four hundred and eighty only                         |                      |

Rentals should be exclusive of depreciation of donor financed equipment.

## SCHEDULE SHOWING THE NAMES OF MANUFACTURERS OR SUPPLIERS WHOSE PRICES FOR THE SPECIFIED MATERIALS AT THE PLACES SHOWN AGAINST EACH ARE TO FORM BASIS OF PAYMENT OF PRICE VARIATION

#### (See Clause 55)

| Name of Item  | Name of Manufacturer<br>or Supplier               | Price at places which are to form basis of Price Variation |
|---|---|--|
| 1   | 2   | 3  |
| (i) Cement  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (ii) Steel (a) M.S Bars (plain & deformed)  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (b) M.S sections  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (c)High Tensile Steel wire  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web -site            |
| (d) M.S & G.I pipe  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (iii) Asbestos cement pipes   | Notified by Finance Department on its Web site    | Notified by Finance Department on its Web site             |
| (iv) P.V.C Pipes  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (v) R.C.C/P.C.C pipe  | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (vi) Bitumen  | Notified by Finance Department on its Web site    | Notified by Finance Department on its Web site             |
| (vii) High Speed Diesel   | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (viii) Bricks a) Bricks b) Tiles c) Gutka   | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| <ul> <li>(ix) Stone aggregate</li> <li>a) Stone metal for sub base.</li> <li>b) Stone metal for base course.</li> <li>c) Crushed bajjri.</li> </ul> | Notified by Finance<br>Department on its Web site | Notified by Finance Department on its Web site             |
| (x). Labour.  |   |  |

#### UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE

#### CONTRACT AGREEMENT

(See Clause 6)

|              |              |                                   | da                                |               |                 |                 |                 |            |
|--------------|--------------|-----------------------------------|-----------------------------------|---------------|-----------------|-----------------|-----------------|------------|
|              |              |                                   | <b>E ANIMAL SC</b><br>ENCES, LAHO |               |                 |                 |                 |            |
|              |              |                                   | Sciences, Laho                    |               |                 |                 |                 |            |
|              |              |                                   | \                                 |               |                 |                 |                 |            |
|              | y & Anima    | al Sciences, L                    | ahore for the co                  | onstruction,  | completion a    | and maintenar   | nce of Consta   | ruction    |
| of           |              | 1 1 1                             |                                   |               | 1               | . 1             |                 | 1 .1       |
| Which expres |              |                                   | ccessors, legal re                | epresentative | s and permit    | ted assigns) as | represented     | by the     |
|              |              | -                                 |                                   |               |                 |                 |                 |            |
|              |              |                                   | incillary works                   |               |                 |                 |                 |            |
|              |              |                                   | act document,<br>ntenance of s    |               |                 | •               |                 |            |
|              |              |                                   | in considerat                     |               |                 |                 |                 |            |
|              |              |                                   | e performed                       |               |                 |                 |                 |            |
| covenant and | _            |                                   |                                   |               |                 |                 |                 |            |
|              |              |                                   | orks associated to contractor for |               |                 |                 |                 |            |
|              |              |                                   | OF VETERINA                       |               |                 |                 |                 | WOIKS      |
| i.           | In conside   | eration of th                     | ne covenants                      | and agreem    | ents to be      | kept and        | performed b     | y the      |
|              | contractor   | and for th                        | e faithful per                    | formance of   | of the cont     | ract and the    | completion      | n and      |
|              |              |                                   | s embraced                        |               |                 |                 |                 |            |
|              |              |                                   | contained a                       |               |                 | •               |                 | •          |
|              |              |                                   | ore shall pay<br>everything f     |               |                 |                 |                 |            |
|              |              |                                   | nder price stip                   |               |                 |                 |                 |            |
|              |              |                                   | by the contract                   |               |                 |                 |                 |            |
| ii.          |              |                                   | be started wi                     |               |                 |                 |                 |            |
|              |              |                                   | k following t                     |               |                 |                 |                 |            |
|              |              |                                   | University o the contracto        |               |                 |                 |                 |            |
|              |              |                                   | koned from                        |               |                 |                 |                 |            |
|              |              |                                   | s may be gr                       |               |                 |                 |                 |            |
|              |              |                                   | all be comple                     |               |                 |                 | Item (g)        | of the     |
|              | Memorand     | um hereto An                      | nexed after issu                  | ance of final | certificate o   | f completion.   |                 |            |
| iii.         |              |                                   | shall be deemed                   |               |                 |                 | rt of this agre | ement.     |
| a)<br>b)     | The said ter |                                   | ing letter and sub                | sequent unde  | ertaking, if an | ıy.             |                 |            |
| c)           |              | -                                 | and additional c                  | onditions, if | any,            |                 |                 |            |
| d)           | The specific | cation;                           |                                   | ,             | <b>3</b> /      |                 |                 |            |
| ,            | The bid sch  |                                   |                                   |               |                 |                 |                 |            |
| f)           |              | No. 1 to                          | <br>orated in the tend            | er)           |                 |                 |                 |            |
| g)           |              |                                   | be supplied from                  |               | sity of Veteri  | nary & Anima    | al Sciencses,   | Lahore     |
| Ç,           | store; depar | rtmental store;                   |                                   |               | •               | ·               |                 |            |
| h)           |              | f rates and price                 |                                   |               |                 |                 |                 |            |
| i)<br>j)     |              | f acceptance as<br>nance security | na                                |               |                 |                 |                 |            |
| iv.          | -            | •                                 | s between the pa                  | ties in conne | ection with or  | arising out of  | this agreeme    | nt chall   |
| IV.          |              |                                   | rith the provision                |               |                 |                 |                 | iit siiaii |
| IN WITNES    | S WHERE      | OF, the partie                    | s have hereunto                   | set their res | spective hand   | ls and seals th | ne day and th   | ne year    |
| hereinbefore | set forth.   |                                   |                                   |               |                 |                 |                 |            |
| Signed by    |              |                                   | S                                 | igned by      |                 |                 |                 |            |
| (C           | Contractor)  |                                   | 5                                 | Биса бу       | University      | Executive Eng   | ineer           |            |
| ,            | ,            |                                   |                                   |               | For and be      | ehalf of the Un | iversity of     |            |
|              |              |                                   | WITNESS                           | ES            | Veterinary      | y & Animal Sci  | iences, Lahor   | e          |
| 1            |              |                                   |                                   |               |                 |                 |                 |            |
| 1            |              |                                   |                                   | 2             |                 |                 | <del></del>     |            |

#### **BANK GUARANTEE**

(See Clause 7)

| (express in words and figures)  KNOW ALL MEN BY THESE PRESENTS THAT  MR./Messers   | whose official address      |
|--|-----------------------------|
| MR./Messers  | whose official address      |
|  | whose official address      |
| (Name of contractor)   |                             |
|  |                             |
| is   |                             |
| as principal(s) (herein referred to as principal) and the Bank of Punjab or sche   | duled Bank(s) of Pakistan   |
| (hereinafter appearing in the schedule of sureties, as sureties (hereinafter some  |                             |
| the request of the principal are held and firmly bond to the University of Veter   | •                           |
| Lahore acting through the Treasure, University of Veterinary & Animal Science  | es, Lahore or his successor |
| or assigns) a body organized and existing under and by virtue of laws of the U   | University of Veterinary &  |
| Animal Science Lahore, in the penal sum of the amount stated above, lawful   | money for the payment of    |
| which sum well and truly made, we bind ourselves, our heirs, executors, adm  | inistrators and successors, |
| jointly and severally, firmly by these presents.   |                             |
| PROVIDED THAT we, the sureties, bound ourselves in such sum jointly  | and severally, as well as,  |
| "severally" only for the purpose of allowing a joint action against any or a   | ll of us and for all other  |
| purposes, each surety bond itself, jointly and severally with the principal for  | the payment of such sum     |
| only as set forth opposite its name in the following schedule:-,   |                             |
|  |                             |
| SCHEDULE OF SURETIES   |                             |
| Name of bank, branch and address   | limit of liability          |
|  |                             |
|  |                             |
|  |                             |
|  |                             |
|  |                             |
| The condition of the above obligations is such that:-  |                             |
|  |                             |
| WHEREAS, the tender of the above bounden principal has been accepted a contract with the University Executive Engineer of the University of Veteri |                             |
| Lahore for the worktheday of20   | •                           |
| 1 6 20   |                             |

NOW THEREFORE, it is agreed as follows:

1) If the above bounden principal shall well truly and faithfully perform the contract and comply with and fulfill and the undertaking, terms and provisions thereof, and satisfy all the obligations of the said principal arising there under, and comply with all covenants therein contained and contained in the specification, plan and other instruments constituting a part of the contract, required to be performed by the said principal, in the manner and, within the time provided in the contract or any extension thereof that may be granted by the University of Veterinary & Animal Sciences,

contract.

Lahore with or without notice to the surety(s) and shall fully indemnify and the University of Veterinary & Animal Sciences, Lahore, for all costs and damages which the University of Veterinary & Animal Sciences, Lahore may suffer by reason of failure so to do, and shall fully reimburse and repay the aid Treasure, University of Veterinary & Animal Sciences, Lahore all out-lay and expenses which may incur in making good any such default and reasonable counsel fee incurred in the prosecution of defense of any action arising out of or in connection with any such default, and shall pay all persons who have contracts directly with the principal for labour and materials, if any, in connection with the work performed under the contract or any addition in or alternation thereto, or if the contract, then this obligation shall be null and void and of no effect, otherwise to remain in full force and effect and virtue.

- 2) The said surety, for value received, hereby stipulate and agree that no change in or in respect of any matter or thing concerning the said contract on the part of the University of Veterinary & Animal Sciences, Lahore or the University Executive Engineer, extension in time, alteration in or addition to the terms of the contract between the University of Veterinary & Animal Sciences, Lahore and the contractor or to the extent and nature of the work be construed, completed and maintained there under, or the specifications accompanying the same shall in any way affect its obligations to this guarantee and it does hereby waive notice of any change, extension in time, alteration or addition to the terms of the contractor to the specifications.
- 3) The liability of the surety is irrevocable and shall in no case exceed the aggregate amount stated on the top of this guarantee which each surety bonds itself and promise to pay the whole or any part of this amount on demand to the Treasure, University of Veterinary & Animal Sciences, Lahore.

Without question and without reference to the principal. Provided that the notice of demand shall be given by the aforesaid Treasure, in writing to the surety.

| IN WITNESS WHEREOF       | , the above named principal an  | d the surety have executed this instrument under |
|--------------------------|---------------------------------|--|
| its seal on this         | day of                          | 20   |
| The name and corporate s |                                 | affixed and these presents duly signed by its    |
|                          |                                 | Principal (Contractor)                           |
|                          |                                 | Address  |
| Sureties 1               |                                 | Bank of Pakistan Ltd.                            |
|                          | Seal                            |  |
| Signed, sealed           | and delivered by the said Princ | ipal and sureties in the presence of             |
|                          | WITNES                          | SSES   |
| 1. Name                  |                                 | 2. Name  |
| Address                  |                                 | Address  |

#### GOVERNMENT OF THE PUNJAB FINANCE DEPARTMENT

#### **NOTIFICATION**

The 7<sup>th</sup> December, 2007

No. RO (Tech) FD 18-44/2006. In exercise of the powers conferred upon him under article 119 of the Constitution of the Islamic Republic of Pakistan, 1973, the Governor of the Punjab is pleased to direct that in the Punjab Departmental Financial Rules (Financial Hand Book No. 3) the following further amendments shall be made.

#### **AMENDMENTS**

a) in the side rules:-

In rule 7.36 for sub rule (b) the following shall be substituted:-

Where tendered amount as mentioned in the letter of acceptance exceeds rupees ten million, the competent authority, may, on the request of the contractor, sanction a mobilization advance up to fifteen percent of the said tendered amount in the manner and subject to the following conditions:-

- i) Initially, a sum of equal to ten percent of the tendered amount and thereafter a further sum equal to five percent of the tendered amount may be sanctioned on the furnishing of certificate by the University Executive Engineer of the work to the effect that mobilization by the contractor is complete in all respect necessary for the due commencement of work,
- ii) the contractor shall furnish a guarantee in the shape of Form DFR (P.W)28-A in favour of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE from any bank declared to be a scheduled bank by the State Bank of Pakistan.
- iii) The authority accepting the tender shall personally verify the bank guarantee.
- iv) No interest shall be charged on a mobilization advance.
- v) The recovery of the mobilization advance shall commence after lapse of 20% contract period or after the execution of the 20% of the work (financial terms) which ever is earlier. The rate of recovery shall be 25% of the value of work done in each interim pay certificate (running bill) and.
- vi) In case contractor fails to execute the work in accordance with terms of the contract, the security offered in respect of the mobilization advance shall be forfeited to the credit of the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE: and

This notification shall be applicable to future / new projects, i.e., after 07-12-2007.

b) Form D.F.R (P.W) 28- A the following shall be substituted.

"FORM D.F.R. (P.W) 28-A"

(Referred to in Rule 7.36)

FORM OF GUARANTEE

(See Clause 50 (b)

| M/s                           | (herein                      | after called the contractor). |
|-------------------------------|------------------------------|-------------------------------|
| called the UNIVERSITY OF      | VETERINARY & ANIMAL          | SCIENCES, LAHORE) to          |
| Animal Sciences, Lahore actin | g through the University Exe | cutive Engineer (herein after |
| WHEREAS a contract for wo     | ork has been awarded by the  | University of Veterinary &    |

|            | AND WHEREAS under the terms of the said contract the UNIVERSITY OF                         |
|------------|--|
|            | VETERINARY & ANIMAL SCIENCES, LAHORE has agreed to advance a sum of Rs.                    |
|            | to the contractor for execution of the said work. The said amount shall be                 |
|            | recovered after lapse of 20% contract period or after the execution of the 20% of the work |
|            | (financial terms) whichever is earlier. The rate of recovery shall be 25% of the value of  |
|            | work done in each interim pay certificate (running bill)                                   |
|            | AND WHEREAS the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES,                                |
|            | LAHORE has required the contractor to furnish a Bank Guarantee from any scheduled          |
|            | bank for securing of the sum advanced thereon:-  |
|            | It is agreed as follow:  |
| 1.         | I acting on behalf of (hereinafter called guarantor)                                       |
|            | hold and firmly bind to the UNIVERSITY OF VETERINARY & ANIMAL SCIENCES,                    |
|            | LAHORE in the sum of Rs (Rupees Payable on the   |
|            | same sum given as mobilization advance to the contractor.                                  |
| 2.         | The guarantor hereby undertakes to pay the said amount payable to the UNIVERSITY           |
|            | OF VETERINARY & ANIMAL SCIENCES, LAHORE on demand in case the                              |
|            | contractor makes a default in the payment of said amount under the terms and conditions    |
|            | of the contract.   |
| 3.         | The guarantee shall be irrevocable and shall remain force till the sum advanced payable    |
|            | thereon has been repaid in full by the contractor.   |
| 4.         | The liability of the guarantor shall in no case exceed the aggregate amount of             |
|            | Rs (Rupees) payable thereon for the payment  |
|            | of which the guarantor hereby undertakes to bind itself and promises to pay the whole or   |
|            | any portion of this amount to the UNIVERSITY OF VETERINARY & ANIMAL                        |
|            | SCIENCES, LAHORE without making a reference to the contractor.                             |
|            | IN WITNESS whereof we the said guarantor have set out hands to this deed of guarantee      |
|            | this day of 201  |
|            |  |
|            | Guarantor (Scheduled Bank)   |
|            | Signed sealed and delivered by the said guarantor in the presence of:                      |
|            | 2.g. to some and don't cook of the said gumanion in the presence of                        |
| Witness. 1 | 2  |
| Address.   |  |
|            |  |
|            |  |

#### The Project Director Works University of Veterinary & Animal Sciences, Lahore

| Subject:       | <u>RELEASI</u> | E OF SECUR    | ITY FOR              | ΓΥ FOR_           |  |              |
|----------------|----------------|---------------|----------------------|-------------------|--|--------------|
|                | It             | is            | submitted            | that              | the                                    | Work         |
| being execu    | ıted under A   | greement No   | )                    |                   | has been                               | n competed   |
| satisfactorily | y and in accor | dance with th | ne provisions of con | tract and technic | cal sanctioned es                      | stimate. The |
| final measur   | rements of the | e work has be | een recorded in the  | Measurement Bo    | ook No                                 |              |
| Page No        |                | to            |                      |                   |  |              |
|                |                |               |                      |                   |  |              |
|                |                |               |                      |                   |  |              |
|                |                |               |                      |                   |  |              |
|                |                |               |                      |                   | he Project Direct<br>Jniversity of Vet | ` '          |
|                |                |               |                      |                   | Animal Sciences                        | , Lahore     |

No.& Date even.

Copy is forwarded for information to the:

- 1. Vice Chancellor, University of Veterinary & Animal Sciences, Lahore
- 2. Chairperson, Works Committee, University of Veterinary & Animal Sciences, Lahore
- 3. Treasurer, University of Veterinary & Animal Sciences, Lahore, to watch the maintenance period and release of security.
- 4. Assistant Engineer(Civil), UNIVERSITY OF VETERINARY & ANIMAL SCIENCES,
- LAHORE He is requested to submit the final bill of the contractor on the basis of measurement as detailed in the body of the letter.
- 5. Resident Auditor, UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

The Project Director (B&W) University of Veterinary & Animal Sciences, Lahore

#### ADDITIONAL CLAUSES

The contractor shall quote item rates for building portion, sanitary portion and electric portion 1. separately. Technical sanction has been granted on the basis of Government of the Punjab Market Rate System. Wherever applicable Non Standardized Rates approved by Project Director, Building & Works, University of Veterinary & Animal Sciences, Lahore have been entered in the bid 2. Any type of mistake detected in tender shall be amended according to the applicable Market Rate System with the amendments issued to the date of receipt of tenders. Conditional tenders or tenders without treasury challan or deposit at call will not be considered / entertained. 4. The program for the execution of work, the arrangement or transport, machinery, materials and labour will have to be-submitted along with the tenders or immediately after it, to the University Executive Engineer. The contractor shall be expected to make himself acquainted with local features and weather conditions etc. and make his arrangements in such a manner that unfinished work is in no danger from storms, floods, etc. claims from the contractors on account of loss arising from weather abnormalities shall not be considered by the University of Veterinary & Animal Sciences, Lahore. 6. The percentage premium tendered by the contractor will be applied on the gross amount (value of finished work including cost of material whether purchased from Government or directly). The rates given in the tender call notice or otherwise to be quoted by tenderer for other items include / should include all carriage and handling of material to the site of work. No extra payment for carriage of material for such items either arranged by the contractor or supplied by the University of Veterinary & Animal Sciences, Lahore. The University of Veterinary & Animal Sciences, Lahore reserves the right to reject any or all the 8. tenders without assigning any reasons. If the tenderer withdraws his tender within 60 days of the date of the opening of the tender, his earnest money will be forfeited to University of Veterinary & Animal Sciences, Lahore. In case of firm / company, the constitution of the firm/company along with the names of the 10. attorney / attorneys of the firm / company authorized to represent the firm / company and to receive the Cheque along with powers of attorney must be provided at the time of submitting the tenders. Before any constructional material is brought to the site of work, the contractor shall submitted the Engineer Incharge, representative samples of material he proposes to use. The samples after approval will be retained by the Engineer Incharge in his custody and the contractor shall be responsible for ensuring that material conforming to such samples are used throughout the contract failing which the material will not be accepted and on written or verbal direction of the Engineer in-charge must be removed forthwith from the site of the work. 12. Samples of door and window fittings which the contractor proposes to use should be got approved in advance from the Engineer in charge, who would approve these keeping in view the samples approved by the Superintending Engineer for the entire Circle. Approved samples shall be retained by the Engineer in charge in his custody and the contractor shall be responsible for ensuring that material conforming to such samples are used throughout the contract failing which the material will not be accepted and on written or verbal direction of the Engineer incharge must be removed forthwith from the site of the work. The contractor shall be responsible for housing, sanitation and medical treatment of the labour 13. employed by him and shall carry out all the department rules framed on the subject.

- 14. Should an accident occur and a claim for compensation be instituted, the contractor shall have to pay compensation to the injured workmen or in case of death to their relative in conformity with the workmen compensation Act of Nineteen hundred and twenty three! Contractors should, therefore, in their own interest take all precautions to guard against accident on their work.
- 15. Labour will be paid by the contractor regularly. Any complaint of arrears due to labour will make the contractor liable to stoppage of his payment from the University of Veterinary & Animal Sciences, Lahore.
- 16. If the work is not started within 15 days from the date of acceptance letter, the earnest money sill stand forfeited to University of Veterinary & Animal Sciences, Lahore.
- 17. The contractor, shall before commencement of any work set out accurately the position as shown in the layout plans and other drawings. He shall whenever directed establish permanent bench mark at his own cost adjacent to the work. After the contractor having set out the work, the pegs and other marks shall be checked by the Assistant Executive Engineer who shall then certify in writing that the work is correctly set out and that the construction may commence. Any work done in contravention to this, shall entirely be contractor's responsibility and may be dismantled if required b the Engineer in charge at the cost of the contractor.
- 18. The contractor will have to make his own arrangement for water and in case water is used from University of Veterinary & Animal Sciences, Lahore taps or corporation taps, the contractor will be responsible to pay the charges as fixed by the officer incharge of the water supply and the same will be deducted from the bill of the contractor if he fails to pay the water charges.
- 19. Foundation trenches shall have to be got inspected and approved by the Engineer in charge before the foundations are laid.
- 20. No masonry work on lean concrete will be taken in hand unless the concrete is approved by the Assistant Executive Engineer incharge.
- 21. The contractor will make his own arrangement at his cost for scaffolding, shuttering and centering etc., required for the execution of the work
- 22. The cost of material received from dismantling, if any, will be deducted from the bill of the contractor at market rates (as decided by the Project Director whose decision shall be final), if it is used by him on construction work. If the contractor does not return the unused dismantled materials, its cost will be recovered from his bill at double the market rates.
- 23. All rates unless otherwise specified include the cost of the following and any fluctuation thereof:-
  - Royalty, malkana, octroi, terminal tax, sales tax, water super tax, customs and excise duty, emergency tax, water tax and any other tolls taxes and levies imposed by Central or Provincial Governments and Local Authorities
- 24. The contractor shall study the drawing and bending schedules and report any inaccuracy in dimensions or in concordance.
- 25. The quantities of items shown in the bid schedule and the estimated cost of tender can be decreased or increased by the Engineer in charge (the increase in amount being limited to twenty percent of the total estimated cost of tender) or to take away any item or part of work at any time if it is deemed necessary by him without assigning any reason and reallot it to any other agency after giving notice to the contractor and this shall not invalidate the tender nor effect the tendered rates in any case, nor any claim on this account shall be entertained.
- 26. The contractor shall faithfully carry out the work as per plan supplied to him and no deviation or alternation will be accepted unless executed with the written permission of the Engineer-in-charge.
- 27. The University of Veterinary & Animal Sciences, Lahore reserves the right to arrange and issue any material available in stores at stock issue rates plus storage charges as

- approved by the. Engineer in charge or at the market rates which over is more, for bonafide use on work.
- 28. It shall be the responsibility of the contractor to remove debris from the site of works and leave the place neat and tidy after the completion or work. Nothing extra shall be paid for it.
- 29. The contractor shall be responsible to the Project Director of the University of Veterinary & Animal Sciences, Lahore for giving exact account of materials issued from University of Veterinary & Animal Sciences, Lahore stores if any used by him on the construction work. In case of excessive use of material or some pilfereage or outside sale by the contractor having been detected, the contractor shall have to pay the cost of such material at penal rates which shall be double the issue rates plus ten percent supervision charges in addition to the storage charges as worked out and approved by the Engineer-in-charge.
- 30. The plant and machinery such as mechanical concrete mixer, hand mixers, vibrators, water pumping sets, screens, measuring boxes, compaction and gradation control equipment, steel moulds for cubes etc, required for the work shall be arranged by the contractor himself at his own cost. Any plant and machinery, if available with the University of Veterinary & Animal Sciences, Lahore may be issued to the contractor, at the discretion of the Engineer in charge on hire, at approved rates and the contractor will be responsible for its carriage from the place, it is delivered and returning it in working condition. He will also be responsible for the working charges of crew and hire charges. The idle days which happen to occur on account of natural causes or major break down in machinery will not be charged to the contractor provided the Assistant Executive Engineer certifies such period.
- 31. Any amount due to the University of Veterinary & Animal Sciences, Lahore from the contractor for this work or otherwise will be recovered from any amount due to him from any work in any Government Department and in case no amount is available the same will be recovered as arrears of Land Revenue in case of default by the contractor.
- 32. The contractor shall make adequate arrangements for proper curing through pumping sets, hose pipes etc., of all cement concrete, reinforced cement concrete and brick work etc.
- Consumption of cement brought by the contractor will be controlled by the Engineer-in-charge. However, watch and ward of the stores shall be the responsibility of the contractor.
- 34. The contractor shall uncover any part or parts of the works or make openings in or through the work or search for the cause of any defects, imperfection or faults in the works as the Engineer-in-charge may from time to time direct and shall reinstate and make good after such uncoverings, openings, to the satisfaction of the Engineer Incahrge. Nothing extra shall be payable on this account.
- 35. The washing platforms, water tanks stacking platforms and material bins for storing screened and washed material will have to be provided by the contractor at site at site at heir own cost in size and numbers sufficient to be adequate for construction purposes.
- 36. The proper type of screens, templates and measuring boxes will be arranged by the contractor at their own cost and got approved from the Engineer Incharge before using those at site.
- No item of work will be commenced unless Engineer Incharge (or Assistant Executive Engineer) is informed before hand and he authorizes commencement after satisfying that the arrangements with regard to setting out, materials, labour, machinery and T&P etc., are completed and adequate in all respects.

- Any other item not provided in the B.O.Q. can be got executed at the tendered premium if it is a schedule item. In case of non schedule items, the same shall also be executed by the contractor after getting the non schedule rate approved from the Project Director Incharge.
- 39. The work of building construction will have to be co-ordinated with the work of water supply, sanitary and electrification. Nothing extra shall be payable to any contractor on this account.
- 40. The security deducted from the bills of the contractor may be deposited with National Bank of Pakistan as interest bearing security, if the contractor makes written request in this regard.
- 41. G.I. Pipe manufactured by the Government owned institutions like Pioneer Steel Mills, PECO, Karachi Pipe etc., will be used and payment shall be released only on the production of memos from authorized dealers of manufacturers
- 42. All sanitary ware shall be I.C.L., Karamcera make or from similar approved manufacture of the same standard.

Where China ware flushing tank is not being proposed, plastic flushing tank of Goldman, Lucky or similar approved manufacture of the same standard will be provided.

The bath rooms fitting shall be Baig or Asia manufacture of best quality.

- The thickness and weight of all soil pipes and special shall be as per totals given in the specifications i.e. 22. (i) of West Pakistan Buildings and Roads Specifications Vol-II, (Public Health Portion) of 1956 Edition.
- 44. Full payment for water supply line shall be made only after testing the line for which certificate shall be recorded in the Measurement Book
- 45. Laying of P.V.C. Pipes of sizes in recesses will be done side by side the building works.
- 46. The contractor shall follow the detailed working wiring diagram showing location of switches and electric points duly approved by the Engineer in charge.
- 47. All electric P.V.C. cables for wiring shall be manufactured by Pakistan Cables Ltd., Karachi, and Newage, Lahore.
- 48. All accessories shall be of genuine Pakistan Plastic Industries Ltd. Karachi.
- 49. P.V.C. Cable shall be in full length from switch to electrical points and from B.D.B. to Switch Boards i.e. loop system shall be adopted.
- 50. For joining P.V.C. Pipes, P.V.C. solution/water proof compound shall be used and nothing extra will be paid.
- 51. All wall socket points shall include plug comprising of 3 Pin 5 Amps, wall socket shoe cut-out for fuse grip and base (Kit Kat) and switch. No separate payment of plug shall be made in case of 3 Pin, 5 Amps wall socket points, whether on surface or recessed.
- 52. All iron clad Main Switches, fuses and out puts shall be of China made of approved quality. In case of non-availability of imported one, FICO or Sandlex as approved by the Engineer Incharge will be provided.
- 53. All branch distribution boards shall be provided with imported fuel base and grips. In case of non-availability of imported fuse bases and grips, FICO or EMCO made as \_ approved by the Engineer Incharge shall be employed.
- 54. All wall sockets shall be of 3 Pin type and the 3<sup>rd</sup> pin shall be earthed through copper wire No. 16 SWG running inside the metal conduit I.P.V.C conduit. No separate payment for the earthing of 3 Pin.
- The work will be carried out strictly in accordance with the East Pakistan Specifications enforced in the Punjab Works Department and to the entire satisfaction

- of the Engineer in charge.
- Use of constructional water will be only as per quantities specified and as permitted by the Engineer in charge or Assistant Executive Engineer Incharge.
- For face work, bricks shall be selected for trueness of edges, shapes and colour, no extra payment being due for this. Care shall be taken that the bricks are not chipped off or stained as the work proceed.
- 58. Masonry with hungry and hollow joints and without proper bond and properly stepped in with the rest of the work will not be accepted.
- 59. All putting holes, if at all allowed by the Engineer in charge shall be filled, in advance to the plastering as the scaffolding is being taken down.
- 60. Samples of steel to be used in reinforced cement concrete work shall be got tested by the Engineer Incharge and the contractor will have to bear the expenses for such tests. There should be at least two such samples for each batch received at site.
- The slump tests should have to be carried out while concerting and the slump maintained for various items as per specifications or as directed by the Engineer in charge. The contractor will have to provide slump testing apparatus for the same at their cost. Any work done against the instructions will be liable to be rejected outright.
- 62. No pouring of concrete for Reinforced Cement Concrete shall be permitted without the use of proper concrete mixers, vibraters and proper centering and shuttering, there should be at least a double set or mixers and vibraters when the concrete is poured to have at least one set as stand by.
- Bending and binding of M.S. bars will have to be done by the contractor strictly, according to the drawing or as per written instructions of the Engineer in charge. No superfluous length or lap spaces etc. nor any wastage will be payable to the contractor.
- 64. The testing of concrete to ensure that the specified strength as per specification or as desired by the Engineer in charge, is being achieved will be got done by the contractor at his own cost. This will include the preparation of cubes with uniform square face, their preservation without any damage, curing, transportation to be approved laboratory and the testing charges of the laboratory. The test resulting for the compressive strength of concrete cubes will have to be submitted regularly while the work proceeds.
- 65. The raising of columns and members similar to these, will not be permitted exceeding three to four feet in height.
- Reinforcing Steel shall be of intermediate grade deformed bars with yield stress not less than 60000 Lbs: per square inch. This shall be supplied by *Mis.* PECO, Lahore, *Mis.* Abdul Qayyum Fazal Muhammad Limited, Lahore or Ittefaq Industries Lahore or similar approved. Receipt for purchase from such suppliers shall be enclosed with the bills.
- 67. Source of stone for use in stone masonry will be approved by the Engineer Incharge.
- 68. Unless specified otherwise pressed steel hallow door frames for all buildings shall be used. Edge bead made from expended metal shall be used on the vertical edges such as jambs of doors and windows etc.

#### **UNIVERSITY OF VETERINARY & ANIMAL SCIENCES LAHORE**

### <u>D.N.I.T.</u>

Building & Works Department

Name of Work: Providing & Fixing of External Electrification at KBCMA, CVAS, Narowal

#### **SUMMARY OF COST**

(Based on MRS 2nd Bi-Annual 2023 - District Narowal)

| Sr.<br>No |                  | Amount (Rs.)              |  |
|-----------|------------------|---------------------------|--|
| I         | MRS ITEMS        |                           |  |
|           |                  | Sub-total - MRS ITEMS     |  |
| II        | NON MRS ITEMS    |                           |  |
|           |                  | Sub-total - NON MRS ITEMS |  |
|           |                  | Sub-total - NON MRS ITEMS |  |
| III       | Total : (I + II) |                           |  |

## UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

## **D.N.I.T. Building and Works Department**

Name of Work:- Providing & Fixing of External Electrification at KBCMA, CVAS, Narowal

| Itom       |   | Ref.MRS,2nd Bi-              |         |           |            |              |
|------------|---|------------------------------|---------|-----------|------------|--------------|
| Item<br>No | Description of Item   | Annual 2023<br>Chap./Item No | Unit    | BOQ Qty   | Rate (Rs.) | Amount (Rs.) |
|            |   | IMRS                         | ITEMS   |           |            |              |
| A). CI\    | /IL WORKS   |                              |         |           |            |              |
| 1.1        | Earthwork excavation in open cutting upto 5'-0" (1.5 m) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 50 ft. (15 m) lead:-                     |                              |         |           |            |              |
| i)         | Hard  | 3/7(ii)                      | 1000Cft | 23.160    | 13,636.700 | 315,825.972  |
| 1.2        | Earthwork excavation in open cutting 5.01 ft. (1.5 m) to 10.0 ft. (3.0 mm) depth for storm water channels, drains, sullage drains in open areas, roads, streets, lanes, including under pinning of walls and shoring to protect existing works, shuttering and timbering the trenches, dressed to designed level and dimensions, trimming, removal of surface water from trenches, back filling and surplus excavated material disposed of and dressed within 100 ft. (30 m) lead:- |                              |         |           |            |              |
| i)         | Hard  | 3/8(ii)                      | 1000Cft | 0.330     | 14,754.900 | 4,869.117    |
| 1.3        | Supplying and filling sand under floor; or plugging in wells.   | 10/3                         | 100Cft  | 37.120    | 3,061.20   | 113,631.744  |
| 1.4        | Cement Concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)   |                              |         |           |            |              |
| (i)        | Ratio 1:4:8 (under floor.)  | 6/5 (i)                      | 100Cft  | 2.000     | 34,098.00  | 68,196.000   |
| 1.5        | Reinforced cement concrete in slab of rafts / strip foundation, base slab of column and retaining walls; etc and footing beams, other structural members complete in all respects:  |                              |         |           |            |              |
| (i)        | Type C (nominal mix 1: 2: 4)  | 6/6 a-iii (3)                | Cft     | 1,254.000 | 538.30     | 675,028.200  |
| 1.6        | Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (Sargodha to Narowal Lead)   | 1/1                          | 100 Cft | 12.94     | 12,471.15  | 161,376.68   |

| 1.7    | Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars): (c) Deformed bars (Grade-60) | 6/12 c         | 100 Kg  | 33.12           | 35,064.05       | 1,161,321.34 |
|--------|---|----------------|---------|-----------------|-----------------|--------------|
| 1.8    | Pacca brick work in foundation and plinth in:-Cement, sand mortar:-Ratio 1:5  | 7/4 i          | 100 Cft | 3.100           | 33,186.45       | 102,877.995  |
| 1.9    | Cement plaster 1:4 on external walls upto 20' (6.00 m) height and ¾" (20 mm) thick.   | 11/9 c         | 100 Sft | 8.700           | 5,272.90        | 45,874.230   |
| 1.10   | Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (two coats)  | 13/33 (a-i+ii) | 100 Sft | 8.700           | 6,726.95        | 58,524.465   |
|        |   |                | TO      | OTAL CIVIL WORK | (S ( MRS ITEMS) | 2,707,526    |
| B). EL | ECTRIC WORKS  |                |         |                 |                 |              |
| 1.1    | Supply and erection PVC pipe for recessed wiring (main or sub- main) purpose, including bends, specials, etc. in  |                |         |                 |                 |              |
| (i)    | 50 mm i/d   | 24/6 (i)       | Rft     | 2785            | 227.25          | 632,891.25   |
| (i)    | 80 mm i/d   | 24/6 (ii)      | Rft     | 2650            | 297.70          | 788,905.00   |
| 1.2    | Supply and erection of single core PVC insulated, PVC sheathed copper conductor, 600/1000 volts grade cable, in prelaid G.I. pipe/M.S. conduits/PVC pipe/G.I. wire/trenches etc (rate for cable only):-   |                |         |                 |                 |              |
| (i)    | 4 .00 mm sq (7/0.036")  | 24/12-i        | Rft     | 2635            | 94.50           | 249,007.50   |
| (ii)   | 6 .00 mm sq (7/0.044")  | 24/12-ii       | Rft     | 480             | 119.35          | 57,288.00    |
| (iii)  | 10.00 mm sq (7/0.052")  | 24/12-iii      | Rft     | 1359            | 157.10          | 213,498.90   |
| (iv)   | 16.00 mm sq (7/0.064")  | 24/12-iv       | Rft     | 1594            | 243.75          | 388,537.50   |
| (v)    | 35 mm sq (19/0.064")  | 24/12-vi       | Rft     | 96              | 499.05          | 47,908.80    |
| 1.3    | Supply & Erection of copper conductor cables for service connection , in prelaid pipe / G.l. wire / trenches, etc. (rate of cable only)   |                |         |                 |                 |              |
| (a)    | PVC insulated, PVC sheathed three core, 600/1000 volts.   |                |         |                 |                 |              |
| (i)    | 3/0.74 mm (3/0.029")  | 24/13 (b,i)    | Rft     | 2360            | 89.75           | 211,810.00   |
| (ii)   | 7/0.91 mm (7/0.036")  | 24/13 (b,iv)   | Rft     | 2635            | 188.35          | 496,302.25   |
| (b)    | PVC insulated , PVC sheathed 4 core, 600/1000 volt non armoured cable:-   |                | 1       |                 | <u>l</u>        |              |
| (i)    | 50 mm (19/0.072")   | 24/13 (c,x)    | Rft     | 100             | 2,649.95        | 264,995.00   |
| (ii)   | 25 mm (19/0.052")   | 24/13 (c,viii) | Rft     | 1469            | 1,372.45        | 2,016,129.05 |
| (iii)  | 10 mm (7/0.052")  | 24/13 (c,vi)   | Rft     | 480             | 935.85          | 449,208.00   |
| (iv)   | 16 mm (7/0.064")  | 24/13 (c,vii)  | Rft     | 1390            | 825.70          | 1,147,723.00 |
|        |   |                |         |                 |                 |              |

|     | Street Light Poles   |              |      |     |            |              |
|-----|--|--------------|------|-----|------------|--------------|
| 1.5 | Supplying,installation, testing and commissioning of Octagonal shape electric street light pole,made of hot dipped 4.5 mm thick (7SWG) galvanized steel,tappered from 225 mm at bottom to 100 mm at top,with1500 mm x 60 mm x 4 mm thick dia. arm for luminaire installation, duly G.I.welded with 470 x 470 x 20 mm base plate with the help of 4 no triangular stiffeners 100 x 350 x 20 mm of GI sheet,with built in junction box with shutter, i/c the cost of nuts & J-rag bolts, duly fixed in prelaid concrete foundation, foundation will be paid additionally as approved and directed by the Engineer In charge.   |              |      |     |            |              |
| (a) | Single Arm   |              |      |     |            |              |
| (i) | 8 meter Height   | 24/71(a,i)   | Each | 20  | 129,642.60 | 2,592,852.00 |
| (b) | Double Arm   |              | T    |     |            |              |
| (i) | 8 meter Height   | 24/71(b,i)   | Each | 4   | 134,682.80 | 538,731.20   |
| 1.6 | Supplying,installation and commissioning of LED Cobra-head Luminaries of specified wattage and lumens conforming to IP66 & IK 08 or above Philips / Osram / Thorn or equivalent with corrosion resistant die casted Aluminum housing, silicon gas ket in special groove,UV stable & scratch resistant synthetic materials, thermally hardened glass complete with LED Chip (Philips Lumiled/Cree/Nichia/Osram make or equivalent), programmable LED driver (Harvard/TCI / Lumo tech / Philips / VOSSLOH Schwabe / Lightech make or equivalent),minimum 10 kV surge protection rating i/c the cost of all accessories /components required for proper operation,fully flexible for future upgradation and easy replacements for maintenance purposes,bucket elevator charges as approved and directed by the Engineer Incharge. |              |      |     |            |              |
| (a) | 140 Lm/watt  |              |      |     |            |              |
| (i) | 120 Watt with 16800 lumens   | 24/72 (a,v)  | Each | 28  | 85,487.90  | 2,393,661.20 |
| 1.7 | Suppling,Installation and comissioning of MCB (Miniature Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY /SIEMEN GERMAN/TERASAKI JAPAN/ ABB SWITZERLAND in prelaid DBs and Panels i/c the cost of screwes,necessary wire complete in all respect as approved and directed by the Engineer Incharge. (a) Single Pole (i) 1-4 Amp(6 KA,10KA)   | 24/89 (a,i)  | Each | 120 | 998.50     | 119,820.00   |
|     | (b)Double Pole (i) 6-40 Amp(6 KA)  | 24/89 (b,ii) | Each | 17  | 4,204.75   | 71,480.75    |

|     | Transformers and Controles Complete in all respect as approved and directed by the Engineer Incharge (Breakers will be Paid Separately).  (a) 6" deep  (ii) 75~100A (30"x22"x6")   | 24/33(d,II) |      | ELECTRIC WORK |           | 13,179,749 |
|-----|--|-------------|------|---------------|-----------|------------|
| 2.0 |  | 24/93(a,ii) | Each | 3             | 40,961.46 | 122,884.38 |
| 1.9 | P/F Outdoor DB (Distribution Board) made with 16SWG Sheet (Surface mounted Type), with IP 54 protection class, high quality powder coated paint, color RAL 7032., i/c the cost of Lock, Indication lights,Thimble, Copper Comb, Wiring, Netural & Earth Bar, Door Earthing, Digital Voltmeter,Digital Ammeter,Volt Selector Switch,Ammeter selector switch,Current Transformers and Controles Complete in all respect as approved and directed by the Engineer Incharge (Breakers will be Paid Separately).  (a) 6" deep  (ii) 20~60A (18"x24"x6") | 24/93(a,i)  | Each | 1             | 34,989.75 | 34,989.75  |
| 1.8 | Supplying,Installation and commissioning of MCCB (Moulded Case Circuit Breaker) of specified rating made of LEGRAND FRANCE/ GE U.S.A / SCHNEIDER GERMANY / TERASAKI JAPAN/ABB SWITZERL(with adjustable Thermal-Magnetic Trip ) in prelaid DBs and Panels i/c the cost of screws, necessary wire complete in all respect as approved and directed by the Engineer Incharge b) Four Pole (i) 15-100 Amp(18KA)  | 24/90(b,i)  | Each | 11            | 31,011.40 | 341,125.40 |

#### UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE.

## D.N.I.T. Building and Works Department

#### Name of Work:- Providing & Fixing of External Electrification at KBCMA, CVAS, Narowal

| Item<br>No      | Description of Item  | Ref.MRS,2nd Bi-<br>Annual 2023<br>Chap./Item No | Unit | BOQ Qty  | Rate (Rs.) | Amount (Rs.) |  |  |
|-----------------|--|---|------|----------|------------|--------------|--|--|
|                 | II NON MRS ITEMS   |   |      |          |            |              |  |  |
| A). CIVIL WORKS |  |   |      |          |            |              |  |  |
| 1.1             | Providing & laying of Warning Tape (2") along PVC pipeline as shown in drawing and as directed by Engineer in Charge   |   | Rft  | 4,615.00 |            | -            |  |  |
| 1.2             | Horizontal Thrust boring 12" dia under roadway for passing of PVC Pipe including 10" UPVC casing pipe complete in all respects as shown on drawings and or/as directed by the Engineer |   | Rft  | 105.00   |            | -            |  |  |
|                 | GRAND TOTAL (NON MRS ITEMS)  |   |      |          |            |              |  |  |

#### B). ELECTRIC WORKS

|     | Fancy Street Lighting Pole  |      |    |   |
|-----|---|------|----|---|
| 1.1 | Supply, Installation, testing & commissioning of 8-Feet High Tubular Double Arm Pole Painted: Bottom dia. 3", Length 5ft,thick 2mm, Top dia.2", Length 3ft,thick 2mm, Arm dia. 1.25", Length 1.5 ft, thick 2mm, Base Plate 250 mm x 250 mm x 10 mm With Light But without bulb, with built in junction box with shutter. J-Bolt size 16 mm, Length 600 mm with Nuts & Washers (4-Pcs) in each set Electroplated.complete in all respects as project requirement and shown in drawing and as directed by Engineer-In-Charge. | Each | 40 | - |
| 1.2 | Supply, Installation , Testing & Commissioning of 30 Watt LED Luminaries for fancy street pole make Philips, GE, Pierlite or approved equivalent suitable for the project requirements as directed by Engineer-In-Charge complete in all respects.  | Each | 80 | - |
| 1.3 | Supply & Fixing of 4 x terminal blocks 25 mm including 2 x end caps, Chanel pati,Screw & 2 x end stopper etc From Poles Junction Box to Lights as Directed by Engineer incharge complete in all respects.   | Each | 64 | - |
| 1.4 | Supply, installation, testing and commissioning of earthing system for DB including 1-Core 16 mm (7/0.064") Cable (From DB to Rod) , Clamps, MS Cu Diposited earth rod 5/8"x10" and earth rod clamp etc. obtain the specified earth resistance upto 5 ohm complete in all respects as required and shown in drawing.(1 core 16mm cable from DB to Rod, civil work & man hole / inspection chamber will be paid separately)  | Each | 6  | - |
| 1.5 | Electric Light Sensor with the following specifications: (i) AS-10 10 A (ii) AC-220 10 A make Honeywell or equivalent complete in all respects as directed by Engineer-In-Charge  | Each | 28 | - |
|     | Proel Speaker Cable   |      |    |   |

| 1.6 | Supply & Erection of speaker cable for passive loudspeakers, 2 core 1.5 mm2 black color, Insulation: Flexible PVC 2.70 mm, Operating Temperature: -20 degree celsius in prelaid pipe / G.I. wire / trenches, etc. (rate of cable only) | D# |  | 305 |  | - |  |  |
|-----|--|----|--|-----|--|---|--|--|
| 1.7 | Supply, installation , Testing & Commissioning of Floor/ Junction Box 16 SWG 1.5' x 1.5' x 6" Powder Coated complete in all respects as directed by Engineer-In-Charge   |    |  | 4   |  | - |  |  |
|     | GRAND TOTAL (NON MRS ITEMS) Electric Items -   |    |  |     |  |   |  |  |
|     | TOTAL NON MRS ITEMS(A+B)   |    |  |     |  |   |  |  |
|     | Total Amount of non Schedule Items   |    |  |     |  |   |  |  |
|     | 2 Add Amour<br>non Schedu  |    |  |     |  |   |  |  |
|     | Grand Total Amount of Non Schedule   |    |  |     |  |   |  |  |

## **UNIVERSITY OF VETERINARY & ANIMAL SCIENCES NAROWAL CAMPUS**

CONSTRUCTION OF R.O PLANTS (2-NOS.) AT KBCMA, CVAS, NAROWAL

## **BILL OF QUANTITIES**

## **SUMMARY OF COST**

| Sr.<br>No | Description   | Page<br>No. | Amount (Rs.) |
|-----------|---|-------------|--------------|
| I         | MRS ITEMS   |             |              |
|           | a) Civil Works  | 6           | 1,593,047    |
|           | b) Mechanical Works   | -           | -            |
|           | c) Electrical Works   | 11          | 720,281      |
|           | Sub-total - MRS ITEMS   |             | 2,313,328    |
|           | Premium / Rebate on MRS 2nd Bi - Annual 2023 @                  | %           |              |
|           | Sub-total - I   |             |              |
| II        | NON MRS ITEMS   |             |              |
|           | a) Civil Works  | 7           |              |
|           | b) Mechanical Works   | 9           |              |
|           | c) Electrical Works   | 12          |              |
|           | Sub-total - NON MRS ITEMS                                       |             |              |
| III       | Total: (I + II)   |             |              |
| IV        | Add PRA tax @ 5%  |             |              |
| V         | Total: (III + IV)   |             |              |
|           | 1 No. RO (Filtration) Plant                                     |             |              |
| VI        | <b>Grand Total Cost</b> : (Vx2)<br>2 Nos. RO (Filtration) Plant |             |              |
|           | 2 1105. ICO (Fitti ation) 1 faut                                |             |              |

Rupees in words: (\_\_\_\_\_\_

| Item<br>No. | Description  | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit      | Qty  | Rate (Rs.) | Amount (Rs.) |
|-------------|--|--|-----------|------|------------|--------------|
| I           | MRS ITEMS  |  |           |      |            |              |
| 1.0         | Earthwork  |  |           |      |            |              |
| 1.1         | Excavation in <b>foundation of building</b> and other structures, including dagbelling, dressing, refilling around structure with excavated earth, watering and ramming lead upto one chain 100ft and <i>lift upto 5 ft.</i>                     |  |           |      |            |              |
|             | i) By Excavator in ordinary soil.  | 3/21 (2-a-ii)                                      | 1000 Cft. | 1.10 | 9,452.65   | 10,398       |
|             | Lift from 5ft (1.5m) to 15 ft. (4.5 m):-   |  |           |      |            |              |
|             | ii) By Excavator in ordinary soil.   | 3/21 (2-b-ii)                                      | 1000 Cft. | 0.30 | 11,328.70  | 3,399        |
| 1.2         | Filling, watering and ramming earth under floors:- with surplus earth from foundation,   | 0(45 (1)   | 4000 00   | 0.40 | 0.500.40   | 050          |
| 1.3         | etc.  Filling, watering and ramming earth under floors:- with new earth excavated from   | 3/15 (i)   | 1000 Cft. | 0.10 | 6,526.10   | 653          |
| 1.4         | outside, lead upto one chain (30 m).  Transportation of Earth all types when the   | 3/15 (ii)  | 1000 Cft. | 0.70 | 14,037.85  | 9,826        |
|             | total distance including the lead covered in the item of work, is more than 1000 ft.(300 m) i) upto ¼ mile (400 m). ii) for every 330 ft. (100 m) additional lead or part thereof, beyond ¼ mile (400 m) upto one mile. (1.6 Km.)                | 3/17 (a,b,c)                                       | 1000 Cft. | 0.70 | 14,152.04  | 9,906        |
|             | <ul> <li>iii) for every ¼ mile (400 m) additional lead or part thereof, beyond one mile (1.6 Km.) upto 5 mile (8 Km).</li> <li>iv) for every ½ mile (800 m) additional lead or part thereof, beyond 5 miles (8 Km). &amp; upto 15 Km.</li> </ul> |  |           |      |            |              |
| 1.5         | Compaction of <b>Earthwork</b> (soft, ordinary or hard soil) :-  | 3/24 (a, b-ii)                                     | 1000 Cft. | 0.80 | 3,814.90   | 3,052        |
|             | <ul> <li>i) Mixing, moistening earth to optimum moisture content in layers for compaction, etc. complete.</li> <li>ii) Compaction by rolling with animal driven roller/hand rammed: (soft or sandy soil)</li> </ul>                              | , , ,  |           |      | ŕ          |              |
| 1.6         | Supplying and filling <b>sand under floor</b> ; or plugging in wells.  | 10/3   | 100 Cft.  | 0.80 | 3,061.20   | 2,449        |
| 2.0         | Concrete.  |  |           |      |            |              |
| 2.1         | Cement <b>Concrete plain</b> including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate)   |  |           |      |            |              |
|             | i) Ratio 1:3:6 (under foundation)  | 6/5 (h)  | 100 Cft.  | 1.20 | 38,182.80  | 45,819       |
|             | ii) Ratio 1:4:8 (under floor.)   | 6/5 (i)  | 100 Cft.  | 1.00 | 34,098.00  | 34,098       |
|             | Ratio 1:2:4 (under floor.)   |  |           |      |            |              |
|             | i) Ground Floor  | 6/5 (f)  | 100 Cft.  | 0.40 | 43,837.20  | 17,535       |

| A) - C | JVII WORKS  | Pot MPC 2md                     |          |        |            | 1            |
|--------|---|---------------------------------|----------|--------|------------|--------------|
| Item   | Description   | Ref. MRS, 2nd<br>Bi-Annual 2023 | Unit     | Qty    | Rate (Rs.) | Amount (Rs.) |
| No.    | ,   | Chap. / Item No                 |          |        | 131/       | ()           |
| 2.2    | Providing and laying <i>reinforced cement concrete</i> (including prestressed concrete), using coarse sand and screened graded and washed aggregate, in required shape and design, including forms, moulds, shuttering, lifting, compacting, curing, rendering and finishing exposed surface, complete (but excluding the cost of steel reinforcement, its fabrication and placing in position, etc.) |                                 |          |        |            |              |
|        | i) Reinforced cement concrete type B nominal mix 1:1-1/2:3 (cylinder strength 3000 psi) in <i>roof slab, beams lintels, girders and other structural members</i> laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects,   |                                 |          |        |            |              |
|        | a) Ground Floor   | 6/6 (a-i-2                      | Cft.     | 219.00 | 733.45     | 160,626      |
| 2.3    | Providing and laying <i>damp proof course</i> 2" thick (50 mm) of cement concrete 1:2: 4 (using cement, sand and shingle), including bitumen coating, (with 2 coats of bitumen)   | 6/36 (b-ii)                     | 100 Sft. | 1.00   | 12,391.35  | 12,391       |
| 2.4    | Providing and laying 3/4" thick vertical damp proof course with cement sand plaster ratio 1:3 and bitumen coating (with 2 coats of bitumen)   | 6/37 (b-ii-b)                   | 100 Sft. | 1.00   | 8,170.75   | 8,171        |
| 2.5    | Carriage of 100 Cft. (2.83 cu.m) of all materials like stone aggregate, spawl, kankar lime (unslaked), surkhi, etc. or 150 Cft. (4.25 cu.m) of timber, by truck or by any other means owned by the contractor. (Sargodha to Narowal <i>Lead upto 200-Km.</i> )  | 1/1                             | 100 Cft. | 4.40   | 12,471.15  | 54,873       |
| 3.0    | Steel Reinforcement   |                                 |          |        |            |              |
| 3.1    | Fabrication of <b>mild steel reinforcement</b> for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars).   |                                 |          |        |            |              |
|        | i) Deformed bars (Grade 60)   | 6/12 (c)                        | 100 Kg.  | 6.70   | 35,064.05  | 234,929      |
|        | Brickwork.  |                                 |          |        |            |              |
| 4.1    | Pacca brick work in foundation and plinth in:-Cement, sand mortar:-Ratio 1:5  | 7/4.(i)                         | 100 Cft. | 6.00   | 33,186.45  | 199,119      |
| 4.2    | Pacca brick work in ground floor:-Cement, sand mortar:-Ratio 1:5  | 7/5.(i)                         | 100 Cft. | 4.00   | 35,979.60  | 143,918      |

| A) - (         | Civil Works   |                                   |          |              |            | -            |
|----------------|---|-----------------------------------|----------|--------------|------------|--------------|
| Item           | Decembries  | Ref. MRS, 2nd                     | 11       | Otre         | Data (Da ) | Amount (Do ) |
| No.            | Description   | Bi-Annual 2023<br>Chap. / Item No | Unit     | Qty          | Rate (Rs.) | Amount (Rs.) |
|                | Poofing   | Chap. / Rem No                    |          |              |            |              |
| <b>5.0</b> 5.1 | Roofing.  Providing and laying 9" x 4½" x 1½" (225mm x  |                                   |          |              |            |              |
| 0              | 113mm x 40 mm) <b>brick tiles</b> grouted with cement sand 1:3, laid over 4"( 100 mm) (average) thick earth with 1" (25 mm) mud plaster without Bhoosaw, grouted with cement sand 1:3 on top of <b>RCC roof slab</b> , <i>including</i> <b>c</b> ost of 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.   |                                   |          |              |            |              |
|                | i) First Floor  | 9/5                               | 100 Sft. | 3.30         | 13,189.60  | 43,526       |
| 5.2            | Supplying and laying <b>polythene sheet</b> over D.P.C. under floors and on roofs, etc.   |                                   |          |              |            |              |
|                | i) 500 gauge (.005" thick)  | 26/37 (ii)                        | Sft.     | 660.00       | 10.20      | 6,732        |
| 5.3            | Providing and Laying Insulation material of <i>Extruded Polystyrene XPS</i> in Rigid Insulation / Foam Board on roof or walls, Density 32-38Kg/M³, compressive strength 250-400 kpa, R-value 5 per inch thickness and water absorption (1% by volume, cell structure colour cell) i/c cutting and placing in position complete in all respect.                                    |                                   |          |              |            |              |
|                | i) 1-1/2" thick   | 9/45 (b)                          | 100 Sft. | 3.30         | 10,527.00  | 34,739       |
| 5.4            | Construction of Khuras on roof 2' x 2' x 6"   | 9/15                              | Each.    | 1.00         | 1,036.65   | 1,037        |
| 6.0            | Flooring.   |                                   |          |              |            |              |
| 6.1            | Providing and laying floor of <i>mosaic marble chips tiles</i> 1"(25 <i>mm</i> ) <i>thick</i> of approved quality and shade, laid in white cement and pigment, over ¾"(20 mm) thick bedding of cement sand mortar 1:2, including finishing and polishing, complete. using grey cement   | 10/24                             | 100 Sft. | 1.50         | 33,005.30  | 49,508       |
| 6.2            | Providing and laying 3/8" thick Prepolished Marble skirting/risers having uniform texture (spotless) of size 24"x6" of approved quality and shade with adhesive bond over 3/4" thick (1:2) cement sand mortar complete in all respect i/c the cost of matching sealer to finish the joints as approved and directed by  |                                   |          |              |            |              |
| 6.3            | the Engineer In charge. <i>China Verona</i> Providing and laying 3/4" thick full width <i>Prepolished Marble slab for Vanities / Shelves / Treads / Window Cills</i> , having Uniform texture (Spotless) with adhesive bond over 3/4" thick (1:2) cement sand mortar i/c the cost of matching sealer complete in all respects as approved and directed by the Engineer In charge. | 10/47 (i)                         | Sft.     | 27.00        | 311.90     | 8,421        |
|                | i) China Verona   | 10/48 (i)                         | Sft.     | 36.00        | 677.05     | 24,374       |
| 6.4            | Extra for <b>Bevelling charges</b> of marble edge in approved design complete in all respects i/c the cost of Carborandam disc as approved  |                                   |          | <b>6</b> 5.1 |            | ·            |
|                | and directed by the Engineer In charge.   | 10/49                             | Rft.     | 37.00        | 31.95      | 1,182        |

| A) - (      | Civil Works  |  |          |        |            |              |
|-------------|--|--|----------|--------|------------|--------------|
| Item<br>No. | Description  | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit     | Qty    | Rate (Rs.) | Amount (Rs.) |
| 6.5         | Providing and laying superb quality <i>Porcelain glazed tiles flooring of MASTER brand</i> of specified size in approved design, Colour and Shade with adhesive / bond over 3/4" thick (1:3) cement plaster i/c cutting grinding complete in all respect as approved and directed by the Engineer In charge.   |  |          |        |            |              |
|             | i) Full body Glazed tiles (600mmx600 mm)   | 10/43 (a-ii)                                       | Sft.     | 20.00  | 441.75     | 8,835        |
| 6.6         | Providing and laying superb quality <i>Porcelain glazed tiles, skirting/dado</i> of MASTER brand of specified size in approved design,Color and Shade with adhesive / bond over 1/2" thick (1:2) cement plaster i/c the cost of sealer for finishing the joints i/c cutting grinding complete in all respect as approved and directed by the Engineer In charge. |  |          |        |            |              |
|             | i) Full body Glazed tiles (600mmx600 mm)   | 10/44 (a-ii)                                       | Sft.     | 80.00  | 441.75     | 35,340       |
| 6.7         | Providing and laying <i>Tuff pavers</i> , having 7000 PSI, crushing strength of approved manufacturer, over 2" to 3" sand cushion i/c grouting with sand in joints i/c finishing to require slope . complete in all respect. <i>(50% Grey / 50% Coloured)</i>  |  |          |        |            |              |
|             | i) 60-mm thick   | 10/42 (b)  | Sft.     | 330.00 | 193.15     | 63,740       |
| 7.0         | Surface Rendering.   |  |          |        |            |              |
| 7.1         | Cement plaster ratio 1:3 under <b>soffit of R.C.C. roof slabs</b> only, upto 20' height. 3/8" (10 mm) thick.   | 11/10 (b)  | 100 Sft. | 11.00  | 4,507.60   | 49,584       |
| 7.2         | Cement plaster 1:4 on <b>internal walls</b> upto 20' (6.00 m) height and ½" (13 mm) thick.   | 11/9 (b)   | 100 Sft. | 3.00   | 3,941.65   | 11,825       |
| 7.3         | Cement plaster 1:4 on <b>internal walls</b> upto 20' $(6.00 \text{ m})$ height and $34$ " $(20 \text{ mm})$ thick.   | 11/9 (c)   | 100 Sft. | 2.00   | 5,272.90   | 10,546       |
| 7.4         | Cement plaster 1:4 on <b>external walls</b> upto 20' (6.00 m) height and $^{3}\!\!\!/^{"}$ (20 mm) thick.  | 11/9 (c)   | 100 Sft. | 8.00   | 5,272.90   | 42,183       |
| 8.0         | Wood Work.   |  | NOT USE  | )      |            |              |
| 9.0         | Painting & Varnishing.   |  |          |        |            |              |
| 9.1         | Preparing surface and painting with three (03) coats <b>Emulsion paint</b> complete in all respect.  | 13/31  | 100 Sft. | 15.00  | 3,929.50   | 58,943       |
| 9.2         | Providing and applying weather shield paint of approved quality on external surface of building including preparation of surface, application of primer complete in all respect: (two coats)   | 13/33  | 100 Sft. | 8.00   | 6,726.95   | 53,816       |

| Item<br>No. | Description   | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit | Qty            | Rate (Rs.)           | Amount (Rs.)     |
|-------------|---|--|------|----------------|----------------------|------------------|
| 10.0        | Iron Work.  |  |      |                |                      |                  |
| 10.1        | Providing and fixing all types of partly fixed and partly <i>open able glazed anodised/ powder coated aluminium doors</i> , using deluxe section of M/s Al-Cop or Pakistan Cables, having chowkat frame of size 40 x 100 mm (1½" x4") and leaf frame of 60x40mm (2½"x1½") wide sections including the cost of ¼" (5 mm) thick imported tinted glass with aluminium triangular gola and rubber gasket to support the glass and leaf edging, using approved standard fittings, locks, 3" (75 mm) wide long handles etc., and hardware any required as approved by the engineer in-charge. | 25/5/  | Sft. | 20.00          | 4 704 25             | 44.000           |
| 10.2        | Providing and fitting all types of <i>glazed aluminium windows</i> of anodised bronze colour <i>partly fixed and partly sliding</i> using deluxe sections of approved manufacturer having frame size of 100 x 20 mm (4"x¾") and leaf frame sections of 50 x 20 mm (2"x¾"), all of 1.6mm thickness including 5 mm thick imported tinted glass with rubber gasket using approved standard latches, hardware etc., as approved by the Engineer in-charge.  | 25/51  | Sft. | 26.00<br>25.00 | 1,724.35<br>1,488.65 | 44,833<br>37,216 |
| 10.3        | Providing and fixing <b>Aluminium Fly screen</b> comprising of Fibber / Aluminium wire gauze (Malaysian) fixed in aluminium frame of approved manufacturer bronze Colour / powder coated of size 1-1/2"x1/2" and 1.6mm thick with rubber gasket i/c cost of Hardware's as approved and directed by the engineer in charge. complete in all respect.   | 25/52  |      |                |                      |                  |
| 10.4        | Providing and fixing <i>M.S. grill</i> fabricated with MS Square polished Vertical/horizontal Bars of specified size @ 4" c/c ' passed through punched holes in MS Patti of 1-1/4"x1/8" i/c the cost of 1-1/4"x1/8" MS Patti for Frame of windows and painting 3 coat complete in all respect as approved and directed by the Engineer In charge. <i>1/2" Square Bars</i>   | 25/53<br>25/59 (ii)                                | Sft. | 13.00<br>25.00 | 526.85<br>1,202.05   | 6,849<br>30,051  |
| 11.0        | Miscellaneous.  |  |      |                |                      |                  |
| 11.1        | Spraying <i>termite</i> proofing by using liquid FMC / Biflex / Terminex Exin/Ms Hextar or equivalent @ specified suspension concenterate (SC), Mixing Ability-HEXTAR with Ratio (1:250) = 540 Sft or equivalent approved liquid applying with shower and certificate will be provided by the contractor for 10-years complete in all respect. as approved  |  |      |                |                      |                  |
| 11.2        | by the Engineer In charge.  Cast iron <i>rain water downpipe</i> fixed in position, excluding heads and shoes, but including painting   | 26/43  | Sft. | 1,013.00       | 11.95                | 12,105           |
|             | and clamps, etc.:- 4" dia (100 mm) cast iron down pipe.   | 9/2 <i>0 (a)</i>                                   | Rft. | 13.00          | 500.00               | 6,500            |
|             | Sub-total - MRS ITEMS   |  |      |                |                      | 1,593,047        |

| Item |             | Ref. MRS, 2nd   |      |     |            |              |
|------|-------------|-----------------|------|-----|------------|--------------|
| No.  | Description | Bi-Annual 2023  | Unit | Qty | Rate (Rs.) | Amount (Rs.) |
| NO.  |             | Chap. / Item No |      |     |            |              |

#### **II NON MRS ITEMS**

#### 1.0 Earthwork

1.1 Supply, filling Select fill material as specified in the drawings including all leads and lift, dressing, watering and compacting to produced in situ dry density not less than 95% modified AASHTO. or as directed by the engineer.

*N-MRS* Cft. 555.00

2.0 Concrete. **NOT USED Steel Reinforcement** 3.0 **NOT USED** 4.0 Brickwork. **NOT USED** 5.0 Roofing. **NOT USED** 6.0 Flooring. **NOT USED** 7.0 Surface Rendering. **NOT USED** 8.0 Wood Work. **NOT USED** 9.0 Painting & Varnishing. **NOT USED** 

10.0 Iron Work.

(Before execution of below mentioned itemized works the Contractor shall provide the shop drawings for the prior approval of the Engineer)

10.1 Providing and fixing *Diamond mesh*, with concrete nails at location of concrete interfacing masonry complete in all respect as shown on the drawings, and/ or as directed by the Engineer.

*N-MRS* Sft. 43.00

#### 11.0 Miscellaneous.

11.1 Horizontal Thrust boring 12" dia. under roadway for passing of PVC Electric Supply including 10" UPVC casing pipe with start and end manhole (02) complete in all respects as shown on drawings and or/as directed by the Engineer

Rft 20.00

,,

Sub-total - NON MRS ITEMS

N-MRS

#### B) - Mechanical Works

| Item<br>No. | Description | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit | Qty | Rate (Rs.) | Amount (Rs.) |
|-------------|-------------|--|------|-----|------------|--------------|
|-------------|-------------|--|------|-----|------------|--------------|

#### **I MRS ITEMS**

#### **NOT USED**

#### **∏** NON MRS ITEMS

Design, Supply, Install, Testing and Commissioning of *UF water filtration plant*, capable of removing Turbidity, Bacteria & Viruses and Arsenic removal (if required) having capacity of 500 litres/hour, and fully automated (Auto filtration, flush and backwash process) complete in all respects as per drawings, specifications and directions of the Engineer. The major components include;

Feed and Backwash *Pumps (Stainless Steel,* NEMA Insulation Class F and Pump Efficiency ≥ 50%)

Silica **Sand Media** (Suspended Solids Removal upto 100 micron)

 Activated Carbon Media (Coconut shells, NSF Certified Manufacturer)

Arsenic *Removal Media* (Ferric Hydroxide, NSF Certified), if required

FRP **Vessels** (OP 150 psi, NSF Certified)

Screen *Filter* (Washable, 70-100 Micron, Stainless Steel)

UF Module for **Blending water**, if required, (Multibore, PES/ PVDF Material, NSF Certified, Pore Size ≤ 0.02µm, Bacteria removal efficiency 99.999% (log 6), Viruses removal efficiency 99.99% (log 4)

Raw and Product *Water Tanks* (500 Gallons, Food Garde Material)

Pressure *Gauges, Rotameters, Flow Meters*, Level Switches/ Sensors,
Multiport valves and Solenoid Valves

Stainless Steel 304 Frame Skid Panel

**Control panel,** for complete system including PLC (Compatible with GPRS/Remote Monitoring), Mimic Panel (10"), Connections, Sensors, Actuators and any other complete in all aspects.

N-MRS Job. 1.00

#### B) - Mechanical Works

| Item | Description | Ref. MRS, 2nd<br>Bi-Annual 2023 | Unit | Qty | Rate (Rs.) | Amount (Rs.) |
|------|-------------|---------------------------------|------|-----|------------|--------------|
| No.  | •           | Chap. / Item No                 |      | ·   | , ,        | , ,          |

Pipe work including feed water pipe line connection and delivery pipeline and necessary gate and flow regulating valves.

Providing and fixing **steel water taps** including header.

**uPVC pipe** and all necessary arrangements to drain off the spent/ waste water in suitable place as per direction of Engineer.

**Electric Water Chillier** 

**Origin of Pumps,** UF membrane, PLC, FRP Vessels shall be Western European/ USA/ Japan region or equivalent.

External Water Supply & Sewerage System (This item includes the providing & fixing of aluminium grating on tap slab, external manhole with all civil works for seweage the waste water, water supply line with all civil works of 2" dia. PPRC Pipe from hydrant about 200ft to RO Plant. The Contractor shall provide the shop drawings for the prior approval of the Engineer)

N-MRS LS

Sub-total - NON MRS ITEMS

## C) - ELECTRICAL WORKS

| Item<br>No.       | Description  | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No   | Unit | Qty    | Rate (Rs.) | Amount (Rs.) |
|-------------------|--|--|------|--------|------------|--------------|
| I                 | MRS ITEMS  |  |      |        |            |              |
| 1.0               | WIRING AND ACCESSORIES   |  |      |        |            |              |
| 1.1               | Wiring of light or fan point from switch to the point with 3x1.5 mm2 (P+N+E) PVC insulated single core cables in 25mmdia PVC pipes concealed in walls, columns and slabs including accessories, PVC box, 10 Amp. gang switch 1 or 2 way as required, one for each light or fan and installed as in specifications. | 10(c-ii)/24,<br>3(iii)/24,<br>17(i)/24,<br>35(ii)/24 | Each | 7.00   | 5,310.00   | 37,170       |
| 1.2               | Circuit wiring from MCBs board to gang switches board with 3x 2.5 mm2 (P+N+E) PVC insulated single core cables in appropriate size dia 25mm PVC conduit.   | 10(c-iii)/24,<br>3(iii)/24                           | Each | 2.00   | 11,656.00  | 23,312       |
| 1.3               | The same as item No. 1.1 but from one light point to another light point.  | 10(c-ii)/24,<br>3(iii)/24                            | Each | 2.00   | 2,885.00   | 5,770        |
| 1.4               | 10 Amp 2/3 pin universal flush mounting switch socket/ Floor Box (For Medical Equipment) unit wired with 3x4mm2 (P+N+E) single core cable from DB circuit in dia 25mm PVC concealed conduits or trunking including all conduit accessories as required complete in all respect.                                    | 10(c-iv)/24,<br>17(ii)/24, 36(i)/24,<br>3(iii)/24    | Each | 1.00   | 11,706.00  | 11,706       |
| 1.5               | Same as item 1.4 but unit wired with 3x2.5mm2 (P+N+E) single core cable from nearest circuit available in dia 25 mm PVC concealed conduits or trunking including all conduit accessories as required complete in all respect.  | 10(c-iii)/24,<br>17(ii)/24, 36(i)/24,<br>3(iii)/24   | Each | 4.00   | 6,506.00   | 26,024       |
| 1.6               | 15/20A, 3-pin flush mounting switch socket unit wired with 1-core 3x6mm2 (P+N+E) wires starting from D.B to socket in dia 25mm PVC concealed conduits and accessories as required complete in all respect.   | 10(c-v)/24,<br>3(iii)/24, 36(ii)/24,<br>17(ii)/24    | Each | 4.00   | 16,978.00  | 67,912       |
| <b>2.0</b> 2.1    | EXHAUST FANS  Providing and fixing Copper winded Exhaust fan with louver and shutter made of Pak/Younas/G.F.C. i/c the cost of necessary cable and hardware for connection from ceiling rose complete as approved and directed by Engineer In charge.  |  |      |        |            |              |
|                   | i) 12 " <i>dia</i>   | 105(a-ii)/24   | Each | 1.00   | 5,253.40   | 5,253        |
| <b>3.0</b><br>3.1 | CONDUITS / PIPES  Supply and erection of PVC pipe for recessed wiring (main and sub main) purpose including bends, specials etc. in floor, wall or trenches.   |  |      |        |            |              |
|                   | i) 25 mm dia   | 3(iii)/24  | Rft. | 100.00 | 125.50     | 12,550       |
|                   | ii) 50 mm dia  | 6(i)/24  | Rft. | 50.00  | 227.50     | 11,375       |
|                   | iii) 100 mm dia (Class-D)  | 28(c)/23   | Rft. | 220.00 | 943.40     | 207,548      |

#### C) - ELECTRICAL WORKS

| Item Description | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit | Qty | Rate (Rs.) | Amount (Rs.) |
|------------------|--|------|-----|------------|--------------|
|------------------|--|------|-----|------------|--------------|

#### 4.0 LOW VOLTAGE ELECTRICAL POWER CABLES

4.1 Supply and erection of copper conductor cables for service connection, in prelaid pipe/G.I. wire/ trenches, etc. (rate for cable only) PVC insulated, PVC sheathed 4 core, 660/1100 volt non armoured cable:-

| i) 10 mm (19/0.052") 4-Core            | 13(c-vi)/24 | Rft. | 250.00 | 935.85 | 233,963 |
|--|-------------|------|--------|--------|---------|
| ii) 6 mm (07/0.044") 2-Core            | 13(a-v)/24  | Rft. | 100.00 | 214.20 | 21,420  |
| Cumply and areation of single core DVC |             |      |        |        |         |

4.2 Supply and erection of single core PVC insulated copper conductor cables, in per laid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):-

| i) 10 mm (7/0.064") | 10(c-vi)/24 | Rft. | 250.00 | 179.85 | 44,963 |
|---------------------|-------------|------|--------|--------|--------|
| iv) 6 mm (7/0.064") | 10(c-vi)/24 | Rft. | 100.00 | 113.15 | 11,315 |

#### Sub-total - MRS ITEMS

720,281

#### II NON MRS ITEMS

All electrical items given below shall be read in conjunction with parts of the Specifications and electrical drawings except otherwise indicated.

The Electrical Works include design, supply, transportation, installation, testing and commissioning of the following items of works as mentioned in this BOQ (unless specifically stated otherwise) including all material, labour, tools, accessories, related civil works, etc., as required for proper completion of each item as per specifications unless otherwise mentioned. (Any necessary material not mentioned in specifications, electrical drawings and here in this BOQ required for proper installation, testing and commissioning of equipment and materials shall be included in BOQ rates.

#### 1.0 LIGHTING FIXTURES & FANS

Supply anf Fixing of Following LED Luminaries of suitable wattage make Philips, GE, Pierlite or approved equivalent suitable for the project requirements. Contractor to submit lighting design calculation to determine the adequacy of the wattage and should adjust the number of LEDs/wattage as per project lighting requirements. The fitting shall be approved by the Engineer.

1.1) Light Fixture Type LED Batten surface mounted 36W, complete in all respect with allied accessories. The fitting shall be approved by the Engineer.

N-MRS Each. 4.00

#### C) - ELECTRICAL WORKS

| <i>O)</i> - <i>I</i> | LLLCTRICAL WORKS   |  |       |      |            |              |
|----------------------|--|--|-------|------|------------|--------------|
| Item<br>No.          | Description  | Ref. MRS, 2nd<br>Bi-Annual 2023<br>Chap. / Item No | Unit  | Qty  | Rate (Rs.) | Amount (Rs.) |
|                      | 1.2) Light Fixture Type LED water tight, 20W, complete in all respect with allied accessories. The fitting shall be approved by the Engineer.            | N-MRS  | Each. | 1.00 |            |              |
|                      | 1.3) Wall bracket fan 20" sweep capacitor type, copper winding complete with all required accessories etc. The fitting shall be approved by the Engineer |  | Each. | 1.00 |            |              |

#### 2.0 EARTHING SYSTEM

Supply, installation, testing and commissioning of following items for Earthing system for grounding of the electrical installation with all allied accessories as required complete in all respects.

2.1 Providing and fixing of copper deposited steel rod earth point including all accessories and civil works complete in all respects as required and shown in drawing.

#### 3.0 LV DISTRIBUTION BOARDS

Supply, Installation, testing and commissioning of following Distribution Boards with 14/16 SWG sheet steel housing (14 SWG for Floor Standing & 16 SWG for Wall Mounted) with approved colour and having specified circuit breakers, CTs, VTs, selector switches, push buttons, LED indication lights, as shown on drawings and mentioned below cubicle with electrolytic copper bus bar with electrical grade PVC mountings 3 for each, nuts, bolts and washers, control MCB etc. with all allied accessories complete in all respects as required.

## (a) **DB-RO PLANT ROOM**

- 04 Nos. Outgoing 10 Amp MCB, SP, RC, 10 kA
- <sup>-</sup> 04 Nos. Outgoing 20 Amp MCB, SP, RC, 10 kA
- <sup>-</sup> 01 Nos. Outgoing 16 Amp MCB, DP, RC, 10 kA
- 03 Nos. Outgoing 10/20 Amp (spare) MCB, SP, RC, 10 kA
- 03 No. Outgoing 10/20 Amp (space) MCB, SP, RC, 10 kA

Indication lights, ammeter with selector switch, voltmeter with selector switch, Panel box SWG 16 powder coated RAL colour 7032, IP class 44 and with all accessories.

N-MRS Each. 2.00

N-MRS Each 1.00

#### Sub-total - NON MRS ITEMS

# UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE. <u>D.N.I.T.</u>

# **Building and Works Department**

Name of Work:- Construction of Dome at Academic Block, KBCMA, CVAS, Narowal MRS, BI-ANNUAL-2023, DISTRICT NAROWAL

# **Schedule Items**

| Sr. No. | Description of Work  | Quantity | Unit    | Rate in Rs. | Amount in Rs. |
|---------|--|----------|---------|-------------|---------------|
| 1       | Reinforced cement concrete in roof slab, beams, columns lintels, girders and other structural members laid in situ or precast laid in position, or prestressed members cast in situ, complete in all respects:- Type C (nominal mix 1: 2: 4)   | 2186.22  | Per CFT | 674.30      | 1474168       |
| 2       | Fabrication of mild steel reinforcement for cement concrete, including cutting, bending, laying in position, making joints and fastenings, including cost of binding wire and labour charges for binding of steel reinforcement (also includes removal of rust from bars):- Deformed bars (Grade-60) | 9501.85  | Per KG  | 350.64      | 3331733       |
| 3       | Cement concrete plain including placing, compacting, finishing and curing complete (including screening and washing of stone aggregate): Ratio 1: 2: 4   | 17.50    | Per CFT | 438.37      | 7671          |
| 4       | Pacca brick work in 1st floor:- cement, sand mortar:- Ratio 1:5  | 170.07   | Per CFT | 377.01      | 64118         |
| 5       | Cement plaster 1:3 up to 20' (6.00 m) height:- $\frac{1}{2}$ " (13 mm) thick   | 4466.12  | Per SFT | 41.33       | 184576        |
| 6       | Single layer of tiles 9"x4½"x1½" (225x113x40 mm) laid over 4"(100 mm) earth and 1" (25 mm) mud plaster without Bhoosa, grouted with cement sand 1:3 on top of RCC roof slab, provided with 34 lbs. per %Sft. or 1.72 Kg/Sq.m bitumen coating sand blinded.   | 1229.95  | Per SFT | 131.90      | 162225        |
| 7       | Preparing surface and painting with emulsion paint:- new surface three coats   | 3069.55  | Per SFT | 39.30       | 120618        |

|     |   |            | Total An    | nount (Rs.) |         |
|-----|---|------------|-------------|-------------|---------|
|     | Rate Quoted Percentage Abov   | e or Below | on Schedule | Items (Rs.) |         |
|     |   |            | Total An    | nount (Rs.) | 5563794 |
| iii | 7/0.91 mm (7/0.036")  | 1434.12    | Per RFT     | 70.35       | 100890  |
| ii  | 7/0.74 mm (7/0.029")  | 600.00     | Per RFT     | 55.70       | 33420   |
| i   | 3/0.74 mm (3/0.029")  | 1000.00    | Per RFT     | 32.00       | 32000   |
| 9   | specials. 20 mm i/d  Supply and erection of single core PVC insulated copper conductor cables, in prelaid PVC pipe/M.S. conduit/G.I pipe/wooden strip batten/wooden casing an capping/G.I. wire/trenches (rate for cables only):- 250/440 volts, PVC insulated: |            |             |             | 0       |
| 8   | Supply and erection of PVC pipe for wiring recessed in walls, including inspection boxes, pull boxes, hooks, cutting jharries, and repairing surface, etc., complete with all   | 500.00     | Per RFT     | 104.75      | 52375   |

| Grand Total Amount                     |  |
|--|--|
| Add Amount of 5% PRA on Schedule Items |  |
| Total Amount of Schedule Items         |  |
| /                                      | Add Amount of 5% PRA on Schedule Items |

# UNIVERSITY OF VETERINARY & ANIMAL SCIENCES, LAHORE. <u>D.N.I.T.</u>

# **Building and Works Department**

Name of Work:- Construction of Dome at Academic Block, KBCMA, CVAS, Narowal MRS, BI-ANNUAL-2023, DISTRICT NAROWAL

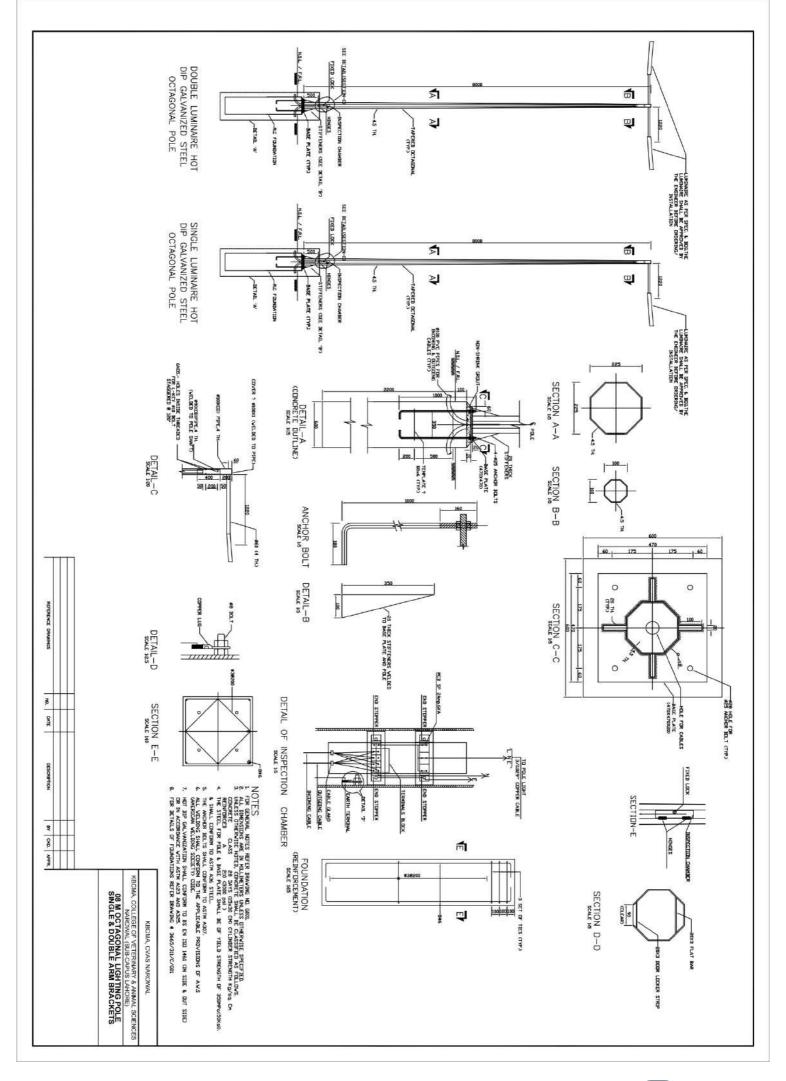
# **Non-Schedule Items**

| Sr. No. | Description of Work   | Quantity    | Unit     | Rate in Rs. | Amount in Rs. |
|---------|---|-------------|----------|-------------|---------------|
| 1       | Making of shuttering for dome as per design<br>and shape and at required Height complete in<br>all respect                                    | 1.00        | Per Job. |             |               |
| 2       | Providing and fixing of plate of 3 Sooter thick of 2 ft dia with 6 sooter thick hoock fixed at top. Crown of the doom complete in all respect | 1.00        | Per No.  |             |               |
| 3       | Providing and fixig of iron chain galvanized 3" thick approximately 18 ft long  | 1.00        | Per No.  |             |               |
| 4       | Extra labour for circular concrete complete in all respect  | 1.00        | Per Job. |             |               |
| 5       | Supply and Erection of Board 2+6 of best quality imported as per approved colour and design   | 2.00        | Per No.  |             |               |
| 6       | Supply and Erection of Light 4" dia of Philips / Opal complete in all respect   | 30.00       | Per No.  |             |               |
|         |   |             | Total Ar | nount (Rs.) |               |
|         | Rate Quoted Percentage Above or   | Below on No |          | ` ,         |               |
|         |   |             |          | •           |               |

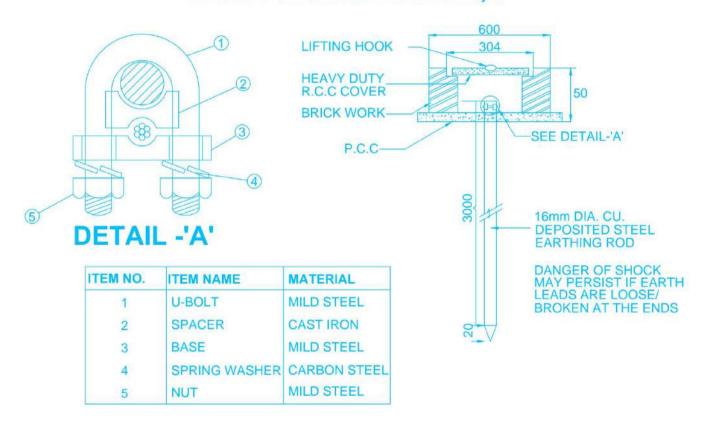
| 3 | <b>Grand Total Amount</b>                  |  |
|---|--|--|
| 2 | Add Amount of 5% PRA on Non-Schedule Items |  |
| 1 | Total Amount of Non-Schedule Items         |  |



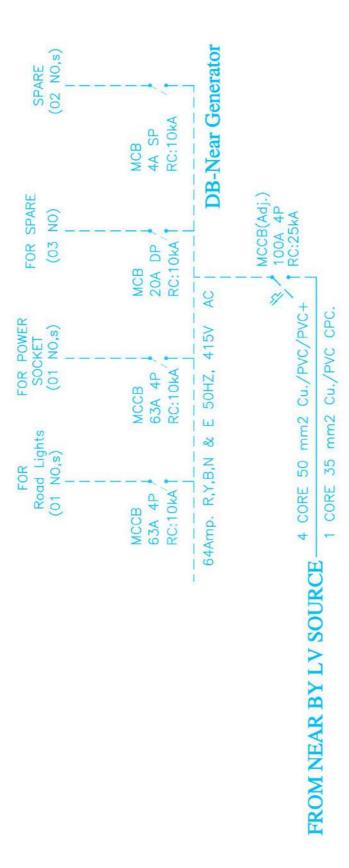


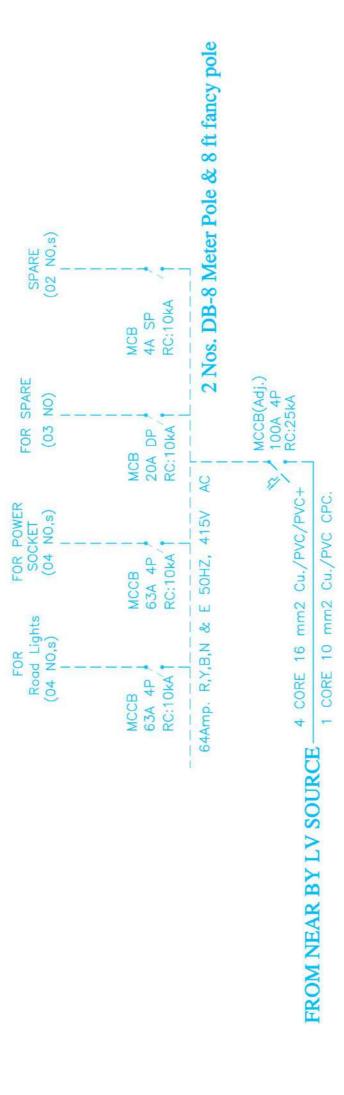


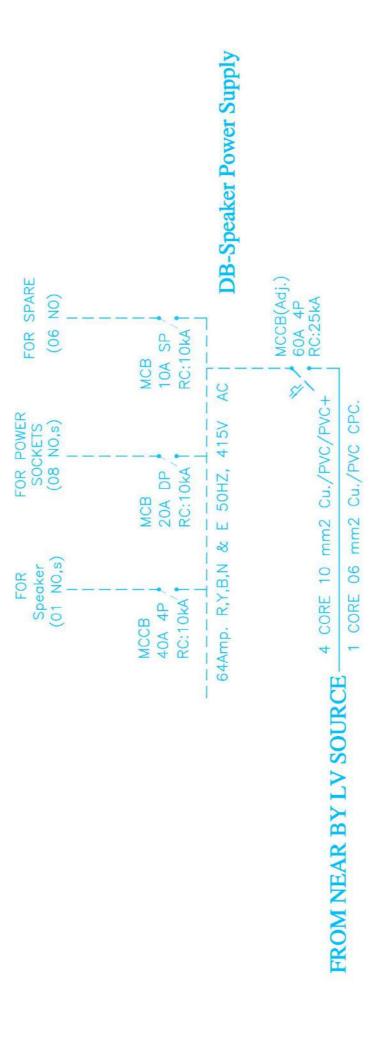
# ROD TYPE EARTH POINT DETAIL FOR DB,S

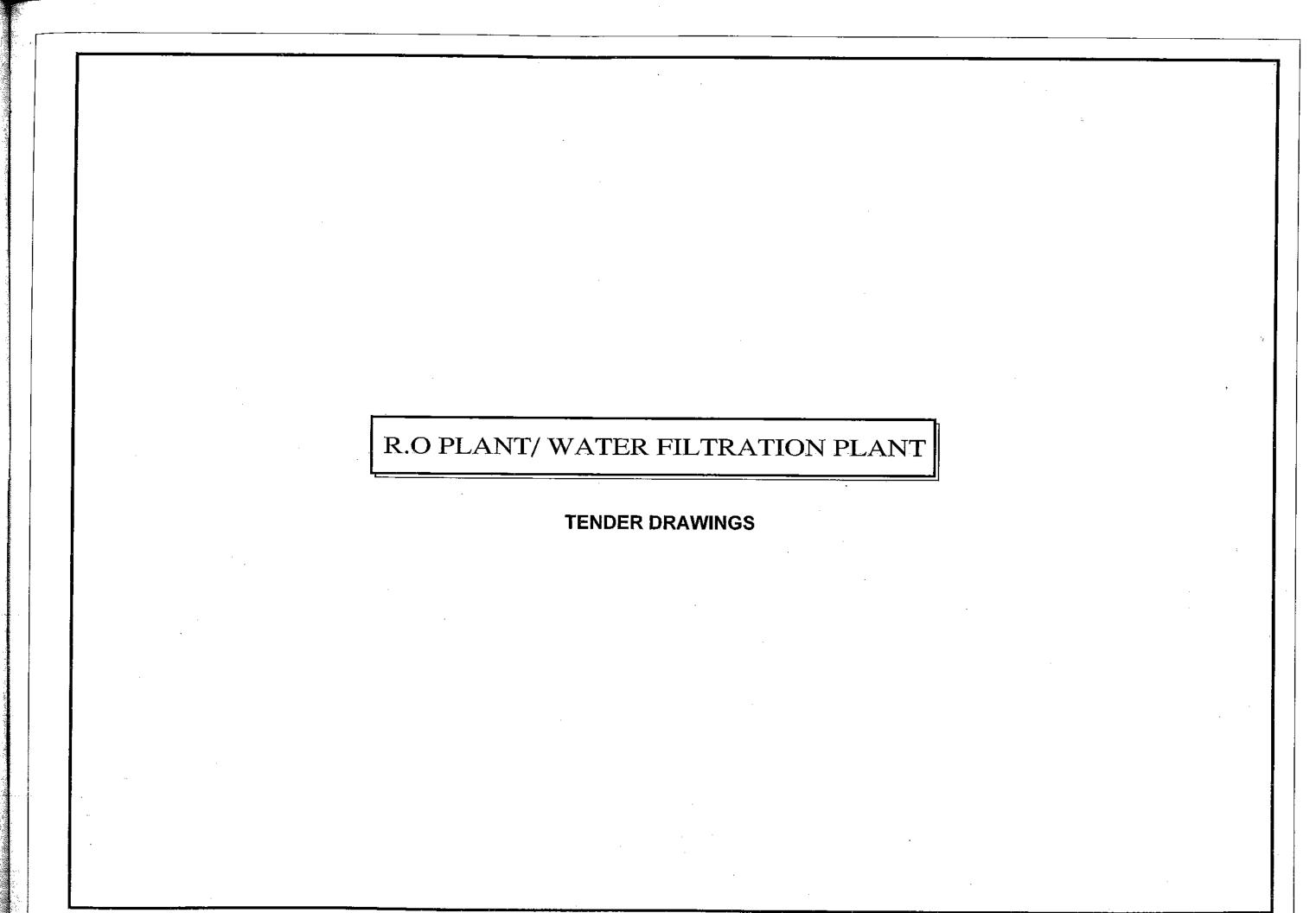


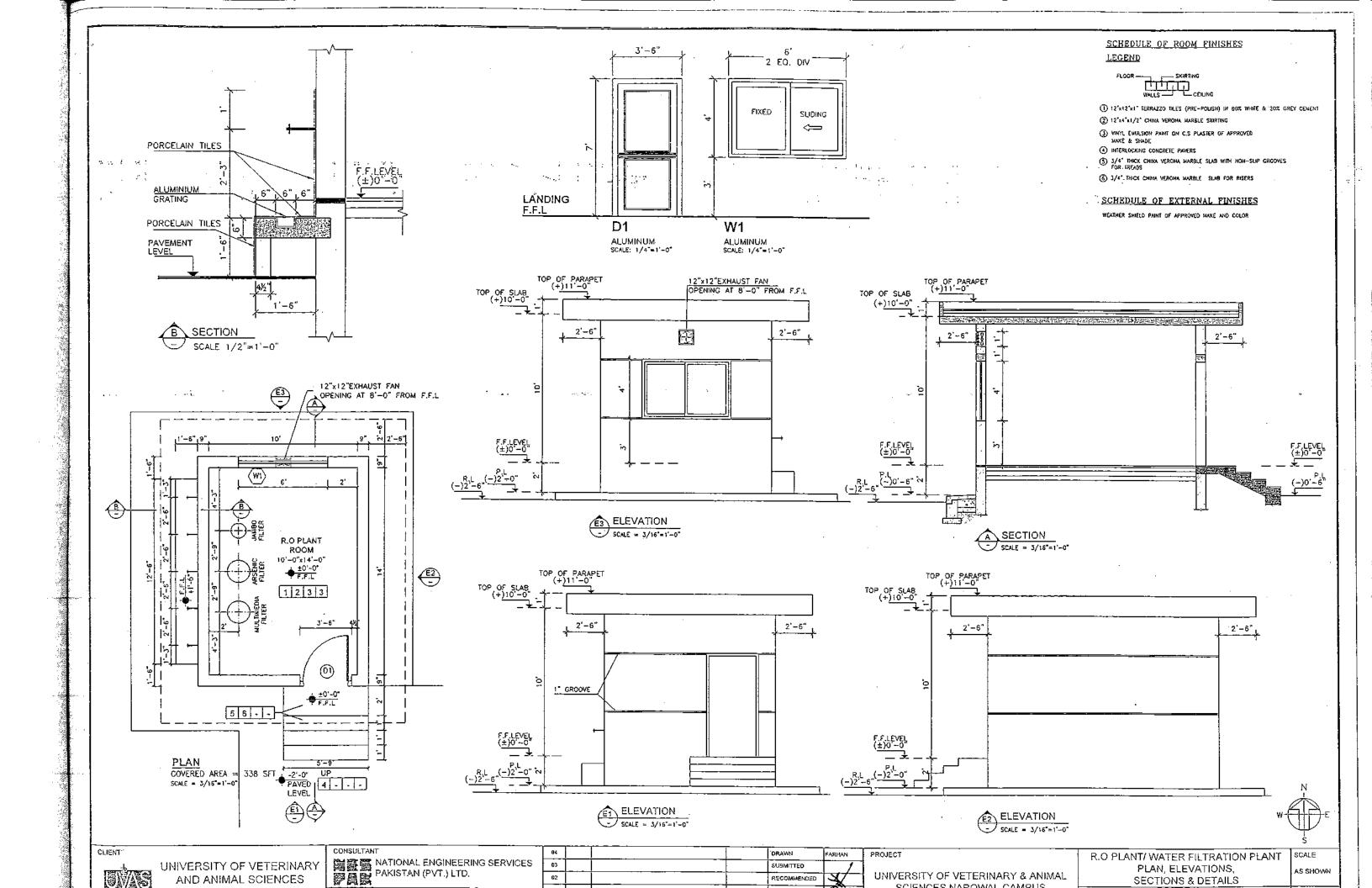


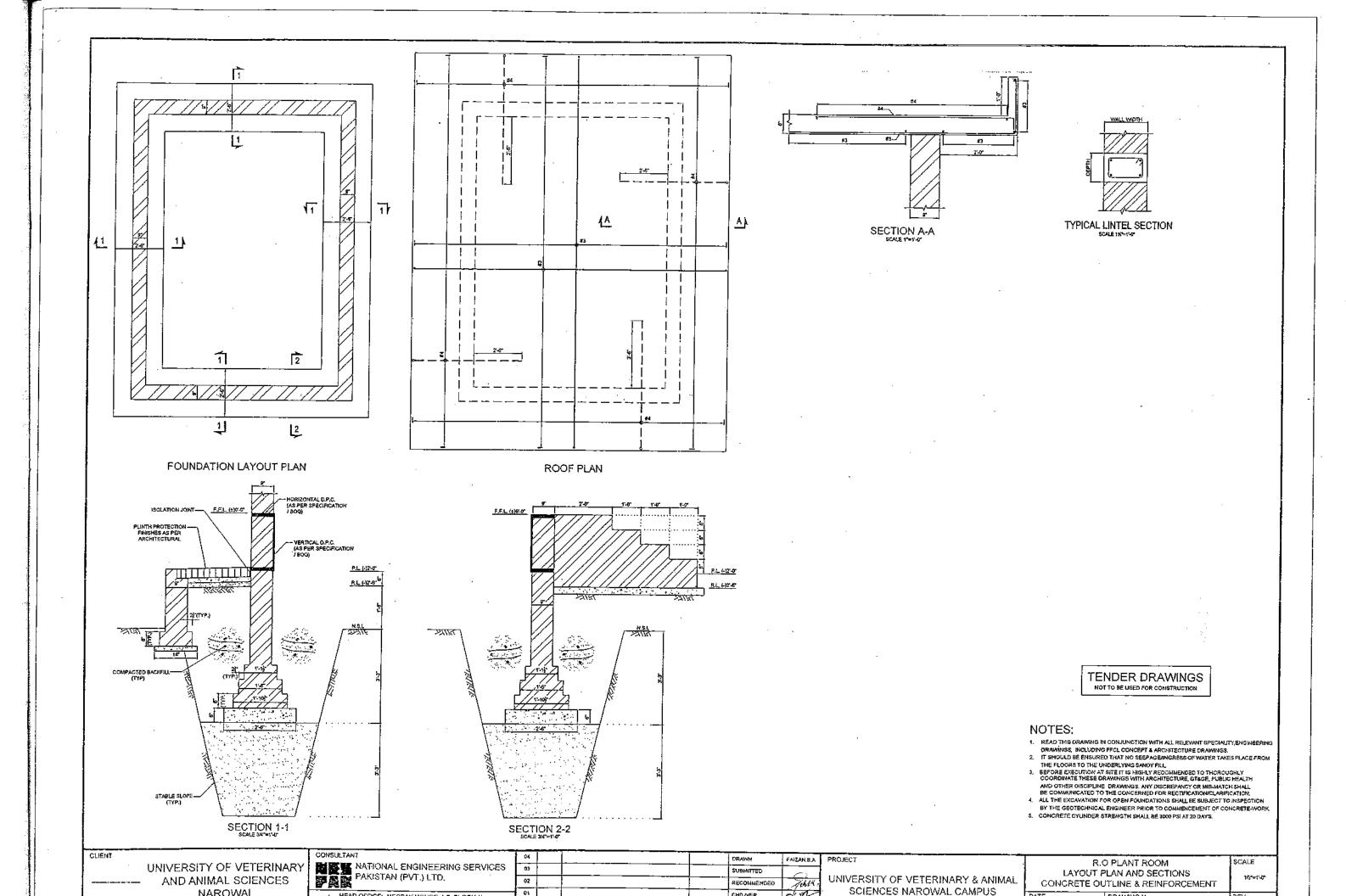












### **GENERAL NOTES**

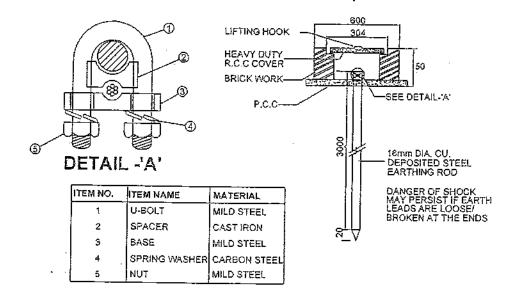
- 1. THIS DRAWING SHALL BE READ IN CONJUNCTION WITH ITEMS OF BILL OF QUANTITIES AND TECHNICAL SPECIFICATION.
- 2. THIS DRAWING SHALL BE COORDINATED WITH OTHER DISCIPLINES WORKS FOR ROUTING, SPACING AND INSTALLATIONS.
- 3. THE MINIMUM SIZE OF THE PVC CONDUIT SHALL BE 25mm (1") DIA
- 4. LIGHT CIRCUIT WIRING SHALL BE WITH 3x2.5 mm Sq. & LIGHT POINT WIRING 3x1.5 mm Sq.
- 5. POWER SOCKETS (20Amp) SHALL BE WIRED WITH 3x6mm.Sq. LIGHT PLUG (10Amp) SOCKETS FIRST POINT SHALL BE WIRED WITH 3x4mm,Sq. & 10Amp, SOCKETS POINT TO POINT WIRED WITH 3X2.5mm, Sq. STRANDED CU, PVC CABLES.
- 6. SINGLE CORE WIRES SHALL HAVE THE FOLLOWING COLOURS
- PHASE WIRES...... RED, YELLOW & BLUE
- NEUTRAL WIRES..... BLACK
- C.P.C.....GREEN/YELOW (AS PER B O.Q)
- 7. THE WIRING SHALL BE STARTED ONLY AFTER THE CONDUIT SYSTEM IS COMPLETELY INSTALLED AND ALL OUTLET BOXES ETC. ARE FIXED IN THEIR POSITIONS.
- 8. POWER/LIGHT PLUG SOCKETS WIRING SHALL BE SEGREGATED AND HAVE INDEPENDENT WIRES RIGHT FROM MINIATURE CIRCUIT BREAKERS IN DISTRIBUTION BOARD
- 9. ACTUAL LOCATION OF ALL OUTLETS MUST BE VERIFIED BY THE CONTRACTOR SITE ENGINEER BEFORE INSTALLATION COMMENCES
- 10. THE MOUNTING HEIGHT OF THE SOCKET OUTLET'S SHALL BE MINIMUM 450mm (FFL)
- 11. THE MOUNTING HEIGHT OF THE LIGHTING SWITCHES SHALL BE MINIMUM 1100mm (FFL)
- 12. NO LUBRICATION EXCEPT AS RECOMMENDED BY MANUFACTURER SHALL BE USED ON WIRES FOR REDUCING FRICTION, NO OIL OR SOAP OF ANY KIND WILL BE ALLOWED ON WIRES FOR THIS PURPOSE.
- 13. THE CONTRACTOR SHALL SUBMIT CONDUITS LAYOUT PLAN BASED UPON THE ELECTRIFICATION DRAWINGS FOR THE APPROVAL OF ELECTRICAL ENGINEER, BEFORE POURING OF ROOF SLABS, WALL AND COLUMNS.
- 14. THE ELECTRICAL WORKS SHALL BE EXECUTED IN STRICT ACCORDANCE WITH THE PROJECT SPECIFICATION
- 15. THE ELECTRICAL EQUIPMENT/MATERIAL SHALL BE SUPPLIED FROM APPROVED MANUFACTURER AS PER APPLICABLE STANDARDS AND CODES

#### LEGEND:

| SYMBOL      | DESCRIPTION  |
|-------------|--|
|             | DISTRIBUTION BOARD (DB)                                      |
|             | SUB MAIN PANEL BOARD (SMPB)                                  |
| Ž<br>Ž      | MOULDED CASE CIRCUIT BREAKER                                 |
| $\otimes$   | VOLTMETER  |
| <b>(A)</b>  | AMMETER  |
| <b>(9</b> ) | SELECTOR SWITCH  |
| $\sim$      | WALL BRACKET FAN   |
| $\Theta$    | EXHAUST FAN  |
| •           | SINGLE POLE 1-WAY SWITCH                                     |
|             | 20 AMP 3 PIN SINGLE PHASE, NEUTRAL & EARTH SWITCH SOCKET     |
| $\triangle$ | 10/13 AMPS 3 PIN SINGLE PHASE, NEUTRAL & EARTH SWITCH SOCKET |

| LIGHTIN     | G FITTINGS SCHEDULE:      |  |
|-------------|---------------------------|--|
| SYMBOL      | DESCRIPTION               |  |
| <del></del> | LED BATTEN LIGHT SAW      |  |
| (WT)        | LED WATER TIGHT LIGHT 20W |  |

# **ROD TYPE EARTH** POINT DETAIL FOR DB,S



#### NOTES

- THIS DRAWING IS FOR INDICATIVE DESIGN MODEL AND SHOULD BE READ IN CONJUNCTION WITH SPECIFICATIONS AND ITEMS OF BILL OF QUANTITIES.
- 2. DISTANCE BETWEEN TWO EARTH BORES SHALL NOT BE LESS THAN 3000MM (3M)
- 3. CONNECTION SHALL BE BOLTED WITH THIMBLES, BRASS NUTS, BOLTSAWASHER ETC.
- 4. CONTRACTOR SHALL MEASURE EARTHING RESISTANCE
- IN THE PRESENCE OF SITE ENGINEER, FOR FINAL ACCEPTANCE. 5. THE VALUE OF EARTH RESISTANCE SHALL BE INCORPORATED IN FINAL AS-BUILT DRAWINGS.
- 6. THE LOCATION OF MAIN PANEL BOARD & DISTRIBUTION BOARDS IS TENTATIVE & SHALL BE FINALIZED AS PER SITE CONDITION / REQUIREMENTS

CONSULTANT

NATIONAL ENGINEERING SERVICES PAKISTAN (PVT.) LTD.

03 SUBMITTED RECOMMENDED (D) 02

PROJECT

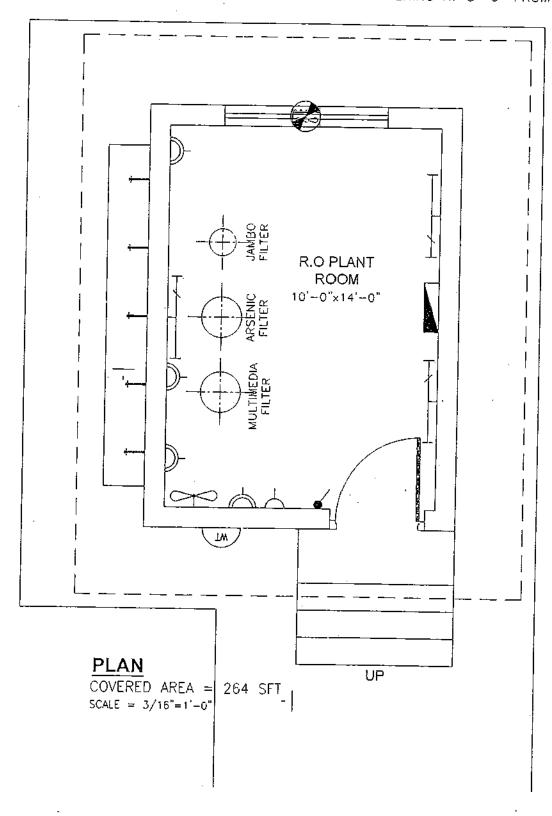
USMAN

UNIVERSITY OF VETERINARY & ANIMAL

GENERAL NOTES, LEGENDS

SCALE N.T.S

12"x12"EXHAUST FAN OPENING AT 8'-0" FROM F.F.L



UNIVERSITY OF VETERINARY

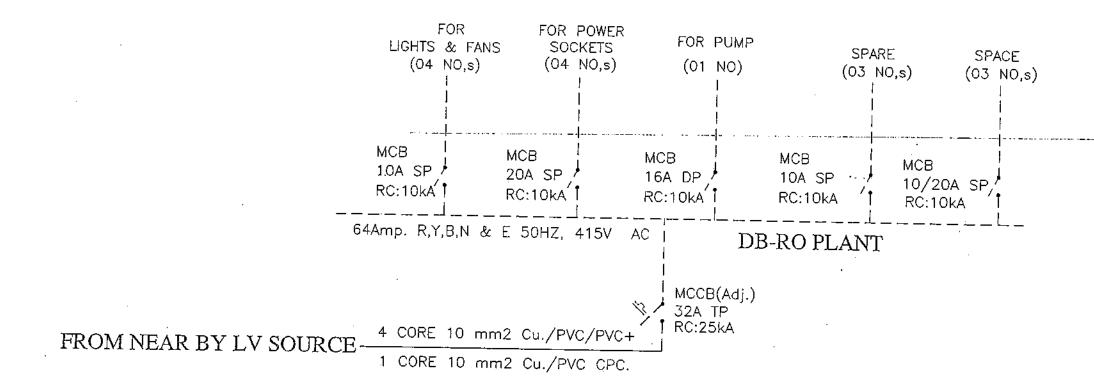
AND ANIMAL SCIENCES

NATIONAL ENGINEERING SERVICES
PAKISTAN (PVT.) LTD.

SUBMITTED 02 RECOMMENDED ( ) PROJECT

UNIVERSITY OF VETERINARY & ANIMAL

R.O PLANT ROOM ELECTRIFICATION LAYOUT PLAN



J.ENI

UNIVERSITY OF VETERINARY
AND ANIMAL SCIENCES

NARY A

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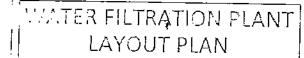
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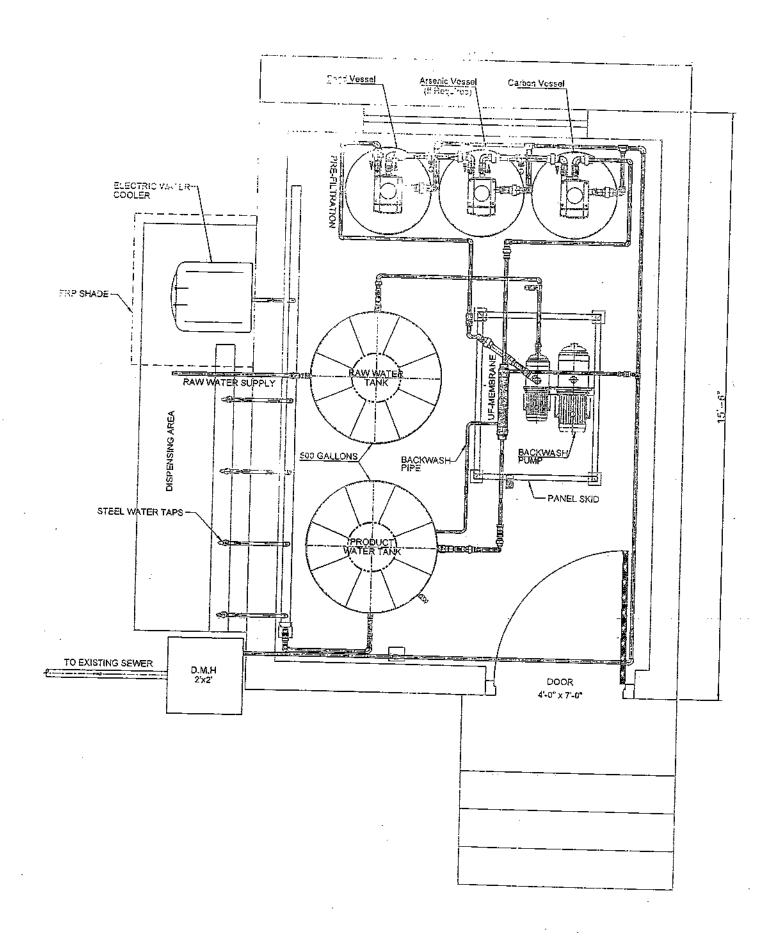
PROJECT

UNIVERSITY OF VETERINARY & ANIMAL

SINGLE LINE DIAGRAM

AS SHOWN





#### STRUCTURAL WORK SPECIFICATIONS AND GENERAL NOTES



#### A. GENERAL

- ) NOTES OVEN ON THIS DRAWING ARE APPLICABLE TO ALL STRUCTURAL DRAWINGS UNLESS OTHERWISE NOTED.
  NOTES WRITTEN ON ANY OTHER DRAWING SHALL BE APPLICABLE TO THAT PARTICULAR DRAWING ONLY UNLESS
  OTHERWISE CROSS REFERRED.
- 2. SYSTEM OF UNITS IS SI, UNTIL UNLESS MENTIONED CTHERWISE
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFETY AND STABILITY OF THE STRUCTURE AND ALL TEMPORARY WORKS DURING CONSTRUCTION
- THE CONTRACTOR SHALL INFORM THE ENGINEER ABOUT ANTICIPATED CONSTRUCTION LOADS ON THE STRUCTURE AND OBTAIN ENGINEER'S APPROVAL THEREOF BEFORE COMMENCING WORK.
- 5. THE CONTRACTOR SHALL CO-ORDINATE ALL DRAWINGS OF ALL DISCIPLINES FOR ALL ITEMS INCLUDING BUT NOT LIMITED TO 9255 AND LOCATION OF ALL DEBINGS REQUIRED FOR DUCTS, PIPES AND THE SELECTION OF THE SELECT OF BETWEEN AND OTHER TIESD TO BE EVIDEDED IN CONCEPTE ON DISTRICTIONS, AND SHALL BRING TO THE NOTICE OF THE ENGINEER DISCREPANCES, IF ANY, FOR HIS INSTRUCTIONS, PROVE OT THE START OF MORE.
- 6. THE CONTRACTOR SHALL PREPARE AND SUBMIT SHOP DRAWINGS AND BAR BENDING SCHEDULES FOR ENGINEER'S APPROVAL AND OBTAIN HIS APPROVAL BEFORE PROCEDURG WITH THE MORN. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR THE ACCURACY OF SHOP DRAWNOS AND BAR BENDING SCHEDULES. THE ENGINEER'S APPROVAL SHALL NOT RELIEVE THE CONTRACTOR FROM HIS RESPONSIBILITY.
- THE CONTRACTOR SHALL VERIFY LAYOUT, CONFIGURATION, ALL DIMENSIONS AND LEVELS PERTAINING TO EXISTING WORKS.
- CONTRACTOR SHALL COORDINATE SCHEDULE OF CONSTRUCTION WITH SUPPLY AND INSTALLATION OF EQUIPMENT, GLAZING WINDOW FRAMES AND OTHER ATTACHMENTS. AS SHOWN ON ARCHITECTURAL DRAWING.
- ALL LEYELS MARKED ON THE ORANNICS ARE LEVELS OF STRUCTURAL ELEMENTS. PINISH LEVELS SHALL BE IN ACCORDANCE WITH THE LARCHITECTURAL DRAWNICS.
- 10. ALL WATERIALS AND WORKMANSHIP SHALL CONFORM TO SPECIFICATIONS OF THE CONTRACT. IN ASSENCE OF ANY EXPRESS OR IMPLIED SPECIFICATION IN THE CONTRACT, ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO RELEVANT AMERICAN STANDARDS.
- 11. TENDER DRAWINGS SHALL NOT BE USED FOR CONSTRUCTION UNTIL AND UNLESS SIGNED BY THE CONSULTANTS.
- 12. THE CONSTRUCTION WORK WUST BE SUPERVISED BY QUALIFIED CIVIL ENGINEER

#### B. FOUNDATION AND EARTHWORK.

- 1. FOUNDATION HAS BEEN DESIGNED FOR FOLLOWING ALLOWABLE NET BEARING CAPACITY = 1.0 TSF (assumed)
- 2 FOUNDATION HAS BEEN DESIGNED FOR BASEMENT & CROUND Floor+ 2 FLOORS.
- J. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DEWATERING SYSTEM IF AND WHERE REQUIRED DURING CONSTRUCTION.
- 4. TERMITE CONTROL TREATMENT SHALL BE CARRIED OUT IN THE BUILDING AS PER SPECIFICATIONS.
- 5. THE CONTRACTOR SHALL SUPPLY AND ERECT ADEQUATE SHORING TO SUPPORT THE SIDES OF ALL EXCAVATIONS WHERE REQUIRED TO SAFEQUARD WORKNEW AND PROTECT ANY ADJACENT STRUCTURES.
- EXISTING UNDERGROUND SERVICES, REQUIRED TO BE LEFT IN POSITION, SHALL, BE CAREFULLY PROTECTED DURING EXCHANGEL AND BACKFILLING OPERATORS.
- 7. ANTI-TERMITE TREATMENT IS RECOMMENDED BEFORE CONSTRUCTION OF FOOTING.

#### C. REINFORCED CONCRETE.

I. ALL CONCRETE SHALL BE TESTED IN ACCORDANCE WITH ASTAL STANDARD SPECIFICATIONS AND SHALL COMPLY WITH THE FOLLOWING REQUIREMENT.

| CONCRETE PART  | MIX RATIO | MIN CYLINDER CRUSHING STRENGTH                 |
|--|-----------|--|
| i- FOUNDATION, R.C.C WALLS, SLABS & BEAMS<br>H- R.C.C COLUMNS, WATER TANKS | 1:114:3   | AT 28 DAYS<br>1c' = 3500 PSi<br>1c' = 4000 PSi |
| III- LEAN CONCRETE/PAD   | 1:4:8     |  |

- 2. ORDINARY PORTLAND CEMENT SHALL BE USED IN ALL CONCRETE WORKS.
- SULFATE RESISTANT CEWENT SHALL BE USED IN STRUCTURES EXPOSED TO WATER (DRAINAGE STRUCTURES OF ANY SORT) AS PER MIX DESIGN.
- 4 ALL RENFORCEMENT SHALL BE DEFORMED, CONFORMING TO ASTM A-615 GRADE 60 WITH SPECIFIED YIELD STRENGTH OF NOT LESS THAN 60,000 PSI NOR MORE THAN 78000 PSI, AND RATIO OF ULTIMATE STRENGTH-YIELD STRENGTH NOT LESS THAN 1.25.
- 5. ALL DETAILING SHALL BE DONE AS PER AD STANDARDS ACI-315 AND ACI-318.
- 6. CONCRETE CLEAR COVER FOR HEINFORCING STEEL SHALL BE AS FOLLOWS:

| CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH     | MINIMUM | COVER |
|--|---------|-------|
| RCC WALLS (ALL SIDES)                                      |         | 2     |
| FOOTINGS (BOY & SIDES):                                    | 3       | in    |
| FOOTINGS (TOP):  | 2       | in    |
| CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND: |         |       |
| SLABS & WALLS  | 0.75    | in    |
| BEAMS,   | 1       | in    |
| COLUMNS, PRIMARY REINFORCEMENT, TIES & STIRRUPS            | 1.5     | in:   |

- ALL RENFORCING STEEL SHALL BE HELD FIRMLY IN PLACE BEFORE AND DURING THE PLACING OF CONCRETE BY MEANS OF MIRES AND SUPPORTS ADEQUATE TO PREVENT DISPLACEMENT DURING THE COURSE OF CONSTRUCTION.
- 8. AT THE TIME CONCRETE IS PLACED, RENFORCEMENT SHALL BE FREE FROM MUD, OIL, OR OTHER NOW METALLIC COLITINGS HAT DECRESSE BOND.
- BEFORE CASTING OF ANY STRUCTURAL MEMBER. THE CONTRACTOR SHALL ENSURE THAT ALL EMBEDDED ITEMS FOR ELECTRICIA, MEMORIAL HIAG, PLIMBING, STRUCTURA STEEL AND OTHER WORKS, AND DOWELS FOR STRUCTURAL MEMBERS MIN/OF MASSIVERY ARE PROPERTY LOCATED IN PLACE.
- 10, PROVICE WATER PROOF COATING AT EXTERNAL SIDE OF BASEMENT R.C.C WALLS.

#### D. EMBEDMENT LENGTHS

UNLESS OTHERWISE STATED ON THE DRAWINGS, THE FOLLOWING EMBEDMENT LENGTHS SHALL BE PROVIDED.

| BAR SIZE              | 10 Ø | 130 | 16 Ø | 19 Ø | 250 |
|-----------------------|------|-----|------|------|-----|
| EMBEDMENT LENGTH (in) | 21   | 28  | 34   | 41   | 55  |

PROVIDE 4X DIA HOOK FOR 180' HOOK & 12X DIA FOR 90', BUT NOT LESS THAN 100 mm

#### E. LAP LENGTH

UNLESS OTHERWISE STATED ON THE DRAWING, THE FOLLOWING LAP LENGTHS SHALL BE PROVIDED.

| BAR SIZE        | 100 | 130 | 16 Ø | 19 Ø | 250 |
|-----------------|-----|-----|------|------|-----|
| LAP LENGTH (in) | 23  | 30  | 38   | 45   | 60  |

- EXCEPT WHEN CTHERWISE SHOWN ON THE DRAWING, WHENEVER REDIFFERENCE BARS OF DIFFERENT SIZES ARE TO BE SPLICEDUAP LENGTH SHALL BE LARGER OF Ld OF LARGER BAR & TENSION LAP SPLICE LENGTH OF SNALLER BAR.
- DEVELOPMENT LENGTH OF 90' HOOKS SHOULD BE 1746 AND SHOULD BE ANCHORED IN CONFINED CORE OF COLLINIA.
- 3. PROVIDE # 10 @ 300mm c/c FOR BINDING ALL TOP BARS IN SLABS.
- 4. ALL BEANS IF PLACED BRICK MASONRY SHOULD HAVE A MINIMUM LAP OF 225mm.

#### F. CONSTRUCTION JOINTS

- 1. CONSTRUCTION JOINTS NOT SHOWN ON THE DRAWNOS SHALL BE SO MADE. MAD LOCATED AS TO LEAST WARRE THE STRENGTH OF THE STRUCTURE. AND SHALL NELD PRIOR APPROVAL OF THE ENONEER. IN DENERAL THEY SHALL BE LOCATED NEAR THE MIDDLE OF THE SPAN OF SLARS NO.

  BEAMS, JOINTS. BE COLUMNS SHALL BE AT THE UNDERSIDE OF FLOORS SLARS OF BEAMS AND AT THE TOP OF FOOTNOS OR FLOOR SLARS. JOINTS. SHALL BE PEPPENDOUGH TO WARRENGEDWENT, ALL REINFORCING STEEL SHALL.

  BE CONTINUED ACROSS JOINTS.
- 2 SURFACE OF CONCRETE CONSTRUCTION JOINTS SHALL BE CLEANED AND LATANCE REMOVED INMEDIATELY BEFORE NEW CONCRETE IS PLACED ALL CONSTRUCTION JOINTS SHALL BE WETTED AND STANDING WARER REMOVED. BEFAUS GROCES, OR SLABS SUPPORTED BY COLUMNS OR WALLS SHALL NOT BE CAST OR ERECTED. UNTIL CONCRETE IN THE VERTICAL SUPPORT MEMBERS IS NO LONGER PLASTIC.
- 3 FLOOR SLABS SUBJECT TO VEHICULAR TRAFFIC SHALL BE TREATED WITH APPROVED METALLIC FLOOR HARDENER

#### G- BRICK MASONRY WORKS

- ALL MASORRY DESIGN AND CONSTRUCTION SHALL CONFORM TO ACT 530-02/ASCE 5-02 LOCAL AUTHORITY REQUIREMENTS AND SPECIFICATIONS. EQUIVALENT BRITISH. STANDARDS MAY BE CONSIDERED SUBJECT TO APPROVAL OF THE EMPLOYER. CONSULTANT.
- THE CONTRACTOR IS TO TAKE PARTICULAR CAPE THAT ALL THE PERPENDS AND BEDS ARE PROPERLY FILLED WITH MORTOR.
- ALL CONTROL JOINTS SHALL BE FILLIED WITH COMPRESSIBLE EXPANDABLE FILLER REFER TO SPECIFICATIONS FOR FIRE BATED WALLS.
- FIRE RATING, SQUIND AND THERMAL INSULATION PROPERTIES. SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS.
- PROVIDE LINTELS OVER ALL OPENING OR RECESSES IN MASONITY WALLS INCLUDING THOSE FOR MICHARICAL OP ELECTRICAL SERVICES ON EQUIPMENT. SEE STANDARD DETAIL DRAWINGS FOR LINTEL SZES AND CETALS.
- 5: PROMDE RESTRAINT TO ALL MASONRY WALLS AT SLAB SOFFIT AND SIDES AS SHOWN IN STANDARD DETAIL
- 7. ALL MASONRY ANCHORS, MASONRY TIES AND EMBEDDED ITEMS SHALL BE HOT DIP GALVANIZED.
- 8. PROVIDE HORIZONIA, BED JOINT REINFORCEMENT IN ACCORDANCE WITH STANDARD DETA, DRAWNIC, AND SPECIFICATIONS.
- 9. USE 6" THICK HOLLOW BLOCK WASONRY ONLY AND 2" THICK FLOOR FINISH

#### H. PROPS, FORMWORK AND CURING.

- 1. SEQUENCE OF REMOVAL OF FORMWORK SHALL BE AS APPROVED BY THE ENGINEER.
- 2. ALL PROPS, BRACINGS, CUY WIRE PROPS, ETC. REQUIRED FOR STRENGTH AND. STABILITY OF THE STRUCTURE AND THE FORWACEK DURING CONSTRUCTION SHALL BE PROVIDED BY THE CONTRACTOR. AT LEAST ONE LOWER FLOUR SHALL REMAIN PROPPED UNTIL THE UPPER FLOOR IS CAST AND CURED.
- 3. USE STEEL PIPES, SCAFFOLDING AND PLATES FOR FORWORK/SHUTTERING OF ALL R.C.C NEMBERS.
- 4. SHUTTERING CAN BE REMOVED AFTER 15 DAYS FOR SPANS < 16' & AFTER 21 DAYS FOR SPANS > 16'
- 5. PROMDE PRE-CAMBER TO SLABS & BEAMS, I'm FOR 20' SPAN.
- 6. CONSTRUCT NON-LOAD BEARING WALLS AFTER UPPER SLAB SHUTTERING IS REMOVED
- 7. MIN CURING AGE FOR CONCRETE IS 28 DAYS.

#### I. OPENINGS.CONCEALED CABLES AND CAST -IN CONDUITS

- NO HOLES OR CHASES ARE PERMITTED IN CONCRETE MEMBERS DIMER THAN THOSE AS DETALED IN THE STRUCTURE DRAWNICS OR AUTHORIZED BY THE ENCINEER PRIOR TO CONCRETING.
- 2. NO HACKING OF CORING OF STRUCTURE IS PERMITTED WITHOUT PRIOR WRITTEN. APPROVAL FORM THE ENGINEER
- PRIOR TO CONSTRUCTION THE CONTRACTOR SHALL COORDINATE ALL STRUCTURAL, ARCHITECTURAL AND MECHANICAL & ELECTRICAL (MAKE) DRAWINGS FOR OPENINGS, CONCEALED CABLES AND CAST -IN CONDITION AND FITTINGS.
- THE CONTRACTOR SHALL INFORM THE ENGINEER IMMEDIATELY OF ANY DISCREPANCES IN DRAWINGS PHUR IC CONSTRUCTION, LOCATION JUXXIMUM SIZE AND MINIMUM SPACING OF EMBEDDED PIPE AND CONDUITS IN R.C. SURB.
- CONDUTS, PIPES, AND SLEEVES PASSING THROUGH A SLAB WALL, OR BEAM SHALL NOT INPAIR SIGNEPONITY THE STRENGTH OF THE CONSTRUCTION.





CLIENT NAME:

COLLEGE OF VETERINARY &

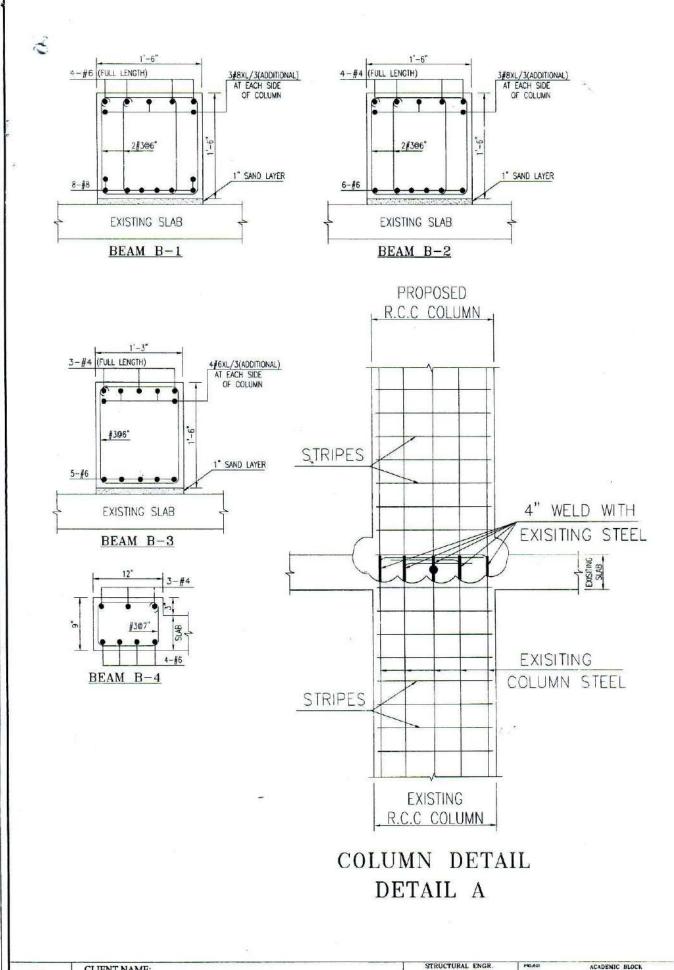
CONSULTANT:

IRTIQA DESIGNS
2nd Floor 15-DD, CCA PHASE IV, DHA, LAHORE, PAKISTAN,
CONIACT #333-920000
EMAIL CONTACT-SIPTI GADESIONS.COM

| STRUCTURAL ENGR.<br>SIGN & STAMP              | PROJECT   | ACADEMIC  | MIC BLOCK           |            |         |
|---|---|-----------|---------------------|------------|---------|
|   | GENER   | RAL NOTES |                     |            |         |
| HIS PRABET IS NOT SUPERVAND BY INTO A DESIGN. | DISTRIBUTE |           | SCHE /A" = 1' = 15' |            |         |
|   |   | ro        | DATE                | 13/02/2023 |         |
|   | ENGR. HARIS HAMEED  |           | DEAKING NO.         |            | 9(A) 56 |

## WORK SPECIFICATIONS AND GENERAL NOTES 932 x 12 = 932 x 1.3 WHICH IS SPEATER TYP BARS CUTOFF DETAILS FOR BEAM REINF: AROUND SLEEVE IN SLAB & WALLS (TYP) TOP BARS 135+11 BOTT BAR SECTIONAA TYP BARS CUTOFF DETAILS FOR SLAB NOW SPLICE LEN TENSION LAP BEAM/ SLAB SPLICE (TYP) CORNER L'BARS KICKER SLAB SAME SIZE AS HORIZ. BARS IN WALL TENSION ANCHORAGE 2" TYPICAL LAP DETAIL AT FLOOR LEVEL IN RCC WALLS TENSION LAP TENSION LAP TYPICAL HORIZONTAL TEE JUNCTION DETAIL IN R.CC WALLS VERTICAL HORIZONTAL STEEL TYPICAL TOP OF WALL DETAIL (INTO SLAB) VERTICAL STEEL CRANKED INSIDE STARTER BARS TYPICAL VERTICAL SECTION SHOWING ARRANGEMENT OF STEEL IN R.C.C WALLS +15 COLUMN 2 Extra 1/2\*0 stirrups within width of secondary beam Secondary Beam BEAM 0 0 0 0 0 0 0 0 0 0 \_COL. STEEL 9000 Shear reinforcement Main Beam BEAM PLAN OF COLUMN BEAM JUNCTION DETAIL BEAM TO BEAM CONNECTION TYPICAL STARTER BAR DETAIL FOR RW WALL AT FOUNDATION LEVEL STRUCTURAL ENGR. SIGN & STAMP CLIENT NAME: ACADEMIC BLOCK GENERAL NOTES BUILDING FOR COLLEGE OF VETERINARY & CONSULTANT: 1/5-1-0 ENGR. ALI RAZA MHALID IRTIDA DESIGNS 2nd Flor 15-DD, CCA PHASE IV, DHA, LAHORE, PAKISTAN. CONTACT #3334-020000 EMAL: CONTACT-GIRTIDADESIGNS COM ENDR. HARIS HANCED

## STRUCTURAL WORK SPECIFICATIONS AND GENERAL NOTES. COLUMN BAR CORNER 'L' BARS SAME SIZE BEAM BAR TENSION AS HORIZONTAL BARS IN WALL ANCHORAGE COLUMN BAR NN IN BEAM BAR BEAM BAR TENSION LAP BEAM BAR PER BEAM WIDTH OR 18" BEAM COLUMN JOINT ELEVATION WITH DIFFERENT COLUMN SIZE BEAM BAR TENSION LAP TYPICAL HORIZONTAL CORNER DETAILS IN ELEVATION OF COLUMN BEAM JUNCTION DETAIL RETAINING WALLS 3/8/06/2/0 8704°0/c CPEATER OF 50 B OF 346.0R BEAM Largest of column dimension H/6 18\* LINKS SPACING SHALL BE LESSER OF 1 8 TIMES DIA OF SMALLEST LONGITUDINAL BAR DR 2 24 TIMES DIA OF LINKS OR 3. SAALLEST C.S DIMENSION OF COLUMN OR TYPICAL COLUMN SPLICE DETAILS TYP. ELEVATION OF COLUMN SEE SCHEDULE SPLICE LENGTH SPLICE LENGTH SEE SCHEDULE 135-DEG. HOOK 1.5 x LARGER BAR DIAMETER OR 11/2" MINIMUM VERTICAL BAR SPACING (COLUMN) BEAM SPLICE (TYP) COLUMN SPLICE (TYP) STIRRUPS AND TIE HOOKS SPACING BETWEEN BARS IN A LAYER BAR DIAMETER OR 1" (MIN.) JOGGLE DETAIL (COLUMN) 12db RATIO (1:10) 135-DEG HOOK 90-DEG. HOOK 180-DEG. HOOK SPACING BETWEEN BARS IN A LAYER BAR DIAMETER OR 1" (MIN.) 90-DEG. HOOK BAR SPACING IN BEAM STANDARD BAR HOOKS STRUCTURAL ENGR. SIGN & STAMP ACADEMIC BLOCK CLIENT NAME: GENERAL NOTES BULDING FOR COLLEGE OF VETERINARY & ANIMAL SCIENCES NAROWAL CONSULTANT; 1/8"+1-0 ENGR AU RAIA KHALD IRTIQA DESIGNS 2nd Flor 15-DD. CCA PHASE IV. DHA, LAHORE, PARISTAN, COMTACT #203-4600000 EMAL: CONTACT @FRITICACESIGNS.COM ENGR. HARIS HAMEED STR-03



CLIENT NAME:

BILLIDAS FOR
COLLEGE OF VETRALARY A
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CONSULTANT:

BETIGA DEBIONS
2nd Food 15-DG, CCA PHASE IV, DHA, LAHORE, PAKISTAN.

CONSULTANT:

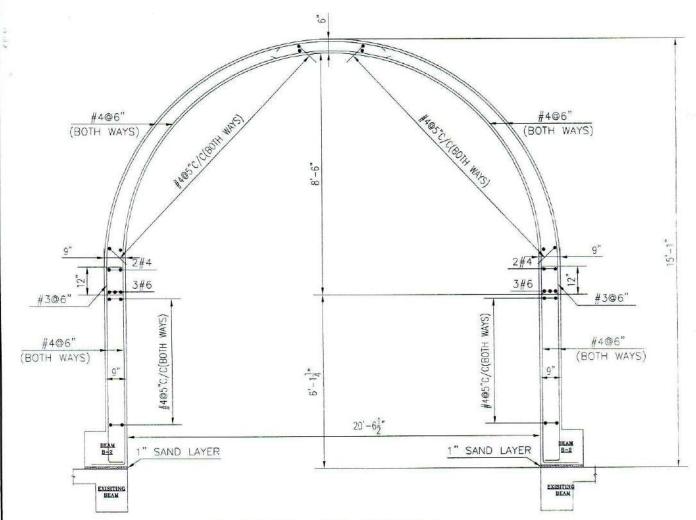
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2nd Food 15-DG, CCA PHASE IV, DHA, LAHORE, PAKISTAN.

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CLIENT NAME: BUILDING FOR COLLEGE OF VETERINARY & ANIMAL SCIENCES NAROWAL

CONSULTANT:

IRTIQA DESIGNS
2nd Floor 15-DD, CCA PHASE IV, DHA, LAHDRE, PAKISTAN,
CONTACT #9333-902000
EMAL CONTACT @IRTIQADESIGNS.COM

| STRUCTURAL ENGR. SIGN & STAMP  THE PROJECT HAVE SUPPLY A BOOLS. | PROJECT: ACADEMIC BLOCK  |  |  |  |  |  |
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