



Hidayatullah National Law University

Nava Raipur, Atal Nagar, District- Raipur – 492002 (C.G.)

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HNLU/Works/Engineering/2021-22/37

25-03-2022

e-Tender

(Percentage rate basis)

Hidayatullah National Law University, Nava Raipur invites online tender from the eligible contractors/firms on **percentage rate basis** for the work mentioned below up to 1500 hrs on 29.03.2022 at www.tenderwizard.com/HNLU.

Name of Work: “Repair, supply, installation, testing and commissioning of duct HVAC System at Auditorium, HNLU”.

Proforma of EMD Declaration: As per sheet attached. (Pg. 5)

Schedule of Quantities: As per sheet attached. (Pg. 7)

Estimated Cost: Rs. 8,34,980/-

Pre-Eligibility Criteria:

1. The firm should be working in the field of supply, installation, testing and commissioning of HVAC Systems. (Proof of work orders to be attached)
2. Declaration in prescribed proforma with regard to EMD.
3. Valid authorization of any OEM for repair and commissioning of HVAC, if any.
4. The firm should have valid registration for GST and PAN (Attach documents.)

Scope of the work

The scope of this work comprises of the supply, repair, erection, testing and commissioning of AC duct, AHU 1 and AHU 2 of HVAC at the auditorium, conforming to standard specifications given in the schedule of quantities of materials from standard manufactures and following prescribed government safety standards.

Quality of materials and workmanship

- i) The components of the installation shall be of the existing design so as to satisfactorily function under all conditions of operation. The entire work of manufacture/fabrication, assembly and installation shall conform to sound engineering practice.
- ii) The entire installation shall be such as to cause minimum transmission of noise and vibration to the building structure.
- iii) All equipments and materials to be used in work shall be of reputed manufactures having excellent track record of quality manufacturing, performance and proper after sales service.

Duct installation

- Duct shall be fabricated and installed in workman like manner, generally conforming to relevant BIS codes and thermally insulated as described in the BOQ. Duct dimension will be as per the pre-existing duct inclusive of the acoustic lining where required and indicated in BOQ. Ducts shall be straight and smooth on the inside with neatly finished joints. All joints shall be made airtight.
- Duct shall be rigid and shall be adequately supported and braced where required with standing seams, tees of ample size to keep the duct true to shape and to prevent buckling, vibration or breaking.
- During the construction, the Contractor shall temporarily close duct openings with sheet metal covers to prevent debris-entering ducts and to maintain opening straight and square, as per direction of Engineer-in-Charge.

- All duct work shall be of high quality approved galvanized sheet steel guaranteed not to crack or peel on bending or fabrication of ducts. All joints shall be tight and shall be made in the direction of airflow.
- Where duct passes through brick or masonry openings, it shall be provided with 25 mm thick TF quality thermo Cole around the duct prior to sealing of the opening.
- The fabricated duct dimensions should be as per the exiting duct and all connecting sections are dimensionally matched to avoid any gaps and shall be fabricated and installed in workmanlike manner, conforming to relevant SMACNA codes.

Testing

- After duct installation, a part of duct section (approximately 5% of total ductwork) may be selected at random and tested for leakage. The procedure for leak testing should be followed as per SMACNA- "HVAC Air Duct Leakage Test Manual. All duct supports, flanges, hangers and damper boxes etc shall be given prescribed coats of red oxide paint before installation and one coat of aluminum paint after the erection, at no extra cost. All angle iron flanges are to be welded electrically and holes to be drilled. All the angle iron flanges are to be connected to the GSS ducts by rivets at 100 mm centers.
- After completion, all duct system shall be tested for air leakage. The entire air distribution system shall be balanced to supply the air quantity as required in various areas and the final balance of air quantity through each outlet shall be submitted to the engineer-in-charge for approval. Measured air quantities at fan discharge and at various outlets shall be identical to or less than 5% in excess of those specified and quoted.

Insulation

- Duct surfaces shall be cleaned to remove all grease, oil, dirt, etc. prior to carrying out insulation work.
- Samples of insulation material delivered at site may be selected by Engineer in charge and gotten tested for thermal conductivity and density at Contractor's cost.
- Insulation material for Duct shall be Closed Cell Elastomeric Nitrile Rubber, thermal conductivity of elastomeric nitrile rubber shall not exceed 0.038 W/ moK or 0.313 Kcal/M hroC or 0.212 BTU/(Hr-ft2-°F/inch) at an average temperature of 30°C. The product shall have temperature range of -40°C to 105°C. Density of material shall not be less than 0.06 gm/cm3. The insulation shall have fire performance such that it passes minimum CLASS O as per BS476 part 7 for surface spread of flame. Water vapour permeability shall not exceed 0.024 per inch (3 x 10⁻¹⁴ Kgs/m.sec.Pa). The material shall have approval from the university Engineer-in-charge.
- Firebreaks shall be provided in all ducts for internal lining/external thermal insulation after a suitable run of length.

Inspection and Testing procedure

- All major equipments such as packaged units, panels, fans shall be got inspected by the engineer in charge at works by the AC contractor, if he so desires.
- All routine and Type tests shall be carried out and the test reports shall be submitted for approval before dispatch.
- In any case the OEM test certificates shall be submitted to the engineer in charge for verification of the same before the payments for the same can be processed.
- The inspection process shall be as under:
- Equipment like packaged units, Ductable units, fans, etc
- The test certificates shall be correlated with the equipment serial no. Electric Motor. The motor shall be of approved make. The OEM's test certificates shall be furnished and verified with the name plate and serial no. The requirement shall be as per technical data submitted.
- Ducting: The GI sheet to be used shall be physically checked for gauge as per IS 277. The bend test shall be performed at site.
- All type of insulation material shall be physically checked for quality, thickness as per tender specification.
- Final Inspection: After completion of entire installation as per specifications in all respects, the AC contractor shall demonstrate trouble free operation of the entire installation simultaneously. The test readings shall be recorded in a mutually acceptable format. All tests shall be carried out by the AC contractor at his own expenses. However necessary utilities such as power and water shall be provided by the owner free of cost.

- The commissioned HVAC system shall be run initially to test run for 72 hours and shall be demonstrated to engineer in charge. In case the conditions are not achieved during the initial run test the HVAC unit shall be readjusted and the new dates for tests shall be determined. The entire test shall be repeated till satisfactory results are obtained. Only after satisfactory test the installation shall be taken over by the customer and warranty period for one year shall commence.

Responsibilities of the Contractor

- Sealing of wall openings for pipes and cables, from fire safety point of view, after laying of the same.
- Making good all damages caused to the structure during recommissioning and restoring the same to their original finish.
- Termination of the feeder in the main incomer unit
- Any loss of refrigerant or oil during the testing period shall be made good by the contractor free of charge.
- All tools and tackles required for unloading / handling of equipments and materials at site, their assembly, erection, testing and commissioning shall be the responsibility of the contractor.
- All sundry fittings, assemblies, accessories, hardware items, foundation bolts, supports, termination lugs for electrical connections, cable glands, junction boxes and all other items which are useful and necessary for proper assembly and efficient working of the various equipments and components of the work shall be deemed to have been included in the tender, irrespective of the fact whether such items are specifically mentioned in the tender or not.
- The entire installation shall be tested as per electricity rules and I.S.S 732-1973 with amendments 1, 2 & 3 prior to the commissioning of the plant and a suitable test report furnished by a competent and authorized person. The test report will be obtained by contractor himself at his own expenses.
- The contractor shall ensure adequate and prompt after-commissioning service in the form of maintenance, spares and personnel as and when required up to one year from the date of commissioning and shall minimize the breakdown period.
- In case of equipment supplied by other manufacturers, the contractor shall furnish a guarantee from the manufacturer.

Terms and Conditions:

1. The work shall be completed within 20 (Twenty) days from the issue of work order.
2. Bidders should have **valid GST registration and PAN Card issued** by Govt. Licensing Board/ Concerned department.
3. Work shall be executed as per specifications mentioned in the BoQ.
4. In the event of conflict between Schedule of Quantities (BOQ) and other documents including the specifications herein, the most stringent shall apply. The interpretation of the Engineer in charge shall be final and binding. All equipment, quantities, and technical data indicated in this BOQ are for Contractor's guidance only; these are based on the documents prepared by the Consultant. This schedule must be read in conjunction with site inspection by the bidder and his assessment.
5. If the contractor fails to complete the work within the stipulated time, the compensation for unjustified delay will be levied @ 0.5% of quoted amount per week of delay subject to maximum 10% of quoted amount.
6. The rates shall be inclusive of GST taxes, transportation.
7. The rate quoted by the contractor shall be all inclusive and shall apply to all heights, floors, leads and nothing extra shall be paid.
8. The payment shall be made after completion of work or as decided by in University Engineer in the interest of work.
9. Site visit is mandatory for the participation in the tender (Declaration must be attached at the time of submission of bid) **(Page 6)**.
10. The University shall not be responsible for any accident and theft of material brought to site for use on work.
11. The University can close the contract at any time without any notice.
12. Any damage/ mishappenings / legal proceeding/compensation occurred during the execution of the contract shall be borne by the contractor and department shall not be responsible for any such occurrence.

13. Statutory recoveries /deduction such as TDS on Income Tax, GST-TDS, Labour Cess as applicable shall be made from the payments.
14. The contractor has to make his own arrangement of scaffolding, T & P and safety gear for the workman etc. required to complete the work.
15. Advance payment is not admissible. Payment shall normally be made within 30 days subject to receipt and acceptance (as per Work Order Terms).
16. Any other information that you may like to obtain, you are free to contact HNLU through mail at purchase@hnl.ac.in before submission of quote.
17. HLNU reserves the right to accept and/or to reject the tender without assigning any reason.

Note: For site visit, the bidders can come and check the duct and AHU within the premises of HNLU.

**Hidayatullah National Law University
Nawa Raipur, Atal Nagar
Chhattisgarh**

Proforma for Earnest Money Deposit Declaration

(To be given on Ten Rupees Non-Judicial Stamp paper duly notarized)

Whereas, I/we (name of agency) ----- have submitted bids for **Repair, supply, installation, testing and commissioning of duct HVAC System at Auditorium, HNLU.**

I/We hereby submit following declaration in lieu of submitting Earnest Money Deposit.

- (1) If after the opening of bid, I/we withdraw or modify my/our bid during the period of validity of tender (including extended validity of tender) specified in the tender documents,
or
- (2) If, after acceptance of the bid, I/we fail to submit performance guarantee before the deadline as defined in the NIT/bid document,

I/we shall be suspended from bidding, making me/us ineligible to bid for HNLU tenders all over India for a period of one year from the date of issue of the order stating so and issued under the authority of University Engineer of this work.

Signature of the contractor(s)
Name of Agency with complete address & email ID

Note: University Engineer shall initiate issue of show cause notice to the contractor who has violated Earnest Money Deposit Declaration within 15 days of violation by the contractor and his decision (to be taken within 60 days of violation by the contractor) thereof shall be final and binding on the contractor.

DECLARATION TO BE SUBMITTED BY THE CONTRACTORS
(WITHOUT THIS DECLARATION TENDERS WILL NOT BE ACCEPTED)

REF TENDER NO. HNLU/Works/Engineering/2021-22/37 , Date: 25.03.2022

NAME OF WORK: “*Repair, supply, installation, testing and commissioning of duct HVAC System at Auditorium,HNLU*”.

NAME OF AGENCY: _____

To,
The Registrar,
HNLU,
Nava Raipur, Atal Nagar,
Chhattisgarh

Sirs,

With reference to the notice Inviting Tender, I/We have gone through the tender documents issued to us. I/We have also gone through the general conditions of the contract of HNLU. I/We here by confirm that I/We shall abide by terms and conditions of General conditions of the contract including form of tender, Invitation to Tender etc. I/We hereby declare that, I/We have visited, inspected and examined the site and its surroundings and well aware about the prevailing site conditions. I / we have satisfied ourselves before submitting this tender; obtained information about the nature of work, facilities that may be required and obtained necessary information about working conditions, risk contingencies etc., which may influence this tender. We hereby offer to execute & maintain the work during the defect liability period in conformity with the tender conditions at the respective rates quoted by us.

Signature of the contractor(s)
Name of Agency with complete address & email ID