

**Request for Quotation of
Sinking of Tube-well and
Installation of Submersible Pump
at Proposed Sports Fields
at
PDEU Campus, Gandhinagar.**

SECTION : I

CONDITIONS OF CONTRACT

1. General

1.1 The bidder shall seal the bid along with Earnest Money Deposit and all other documents in an envelope.

1.2 The envelope shall be addressed to:

a. **Chief Campus Manager**

Pandit Deendayal Energy University,
Village Raysan,
Gandhinagar – 382 426

b. Bear **“Offer for Sinking of Tube well and Installation of Submersible Pump at PDEU campus – Proposed Sports fields”**

c. Indicate the name and address of the bidder.

1.3 **Date of submission of bid 30-09-2022 at 03.30 Hours.**

2. Scope of Work

The scope of work includes Boring of 450 mm tube well, providing and lowering of Casing Pipe, Bail bug, Column Pipe, Submersible Pump, Panel Board and Box and miscellaneous related works as per schedule of quantities at PDEU, Village Raisan, Dist Gandhinagar; as per design, specifications and estimated quantities mentioned in the contract or other connected/relevant documents and its maintenance thereof and except in so far as the Contract otherwise provides, the provision of all labour, materials, completion and maintenance so far as the necessity for providing the same is specified in or reasonably to be inferred from the contract. Maintenance thereof means rectification of defects observed during the defects liability period of one year

- 3 **Amount Of Earnest Money Deposit** : **Rs. 15,000/- (Rs. Fifteen thousands only)** in the form of demand draft/pay order drawn on a nationalized/scheduled bank in favors of **Pandit Deendayal Energy University**, payable at Gandhinagar
- 4 **Security Deposit (Including earnest money)** : EMD retained as Security deposit and 10 % of certified amount shall be deducted from bill maximum up 10 % of work done.
SD shall be released on completion of defect liability period.
- 5 **Period For Completion Of The Works** : The period of completion of work is 25 days (including monsoon period, if any) from the date receipt of the work order excluding 7 days of mobilization period.
- 6 **Minimum Value Of Work For Running Account Bill** : No Running account bill shall be prepared

16. Final Bill

Within 10 days from the date of the issue of completion certificate for the entire job allotted to him and along with documentary evidence the Contractor shall forward the final bill to the Project Administrator through Engineer-in-Charge.

Within 30 days of receipt of the above certified account from the contractor, PSPU shall check, certify the final bill indicating the amount payable to the contractor after all deductions and adjustments whether required as per the provisions of any law or as per terms of the contract including the amount of Income Tax required to be deducted at source. Payment of final bill shall be released within three months after checking and certifying by Engineer-in-Charge of PDEU.

17. Defect Liability

The contractor will be required to rectify any defects caused during this period of **1 YEAR** from the date of final completion of the work issued by PDEU. He will not be paid any extra amount whatsoever the amount is required for rectifying those defects. If the contractor does not agree for rectifying those defects the same shall be rectified by PDEU and the amount incurred on rectifying the defect will be deducted from his Security Deposit.

18. Equipment & Machinery on Work Site

- i. Sufficient scaffolding material as well as ropes, steel adjustable props having required spans of required strength, adjustable clamps, turn buckles, etc shall be arranged by the contractor
- ii. Any other tools/tackles/equipment necessary for the satisfactory and successful execution of the project, if necessary for the statutory requirements shall be arranged by the contractor

20. Price Escalation

No price escalation shall be entertained under any circumstances

21. Taxes

The rates shall be firm and not subject to exchange variations, labour conditions, fluctuations in railway freights or any conditions whatsoever. It shall also include for all type of taxes including GST and any other taxes/duty or other levy levied by the Central or State Governments or local authorities, if applicable. No claim in respect to the above mentioned shall be entertained by the Employer.

The rates of the items to be quoted, shall be including GST.

SECTION : II
BID LETTER FROM CONTRACTOR - MODEL

To
Chief Campus Manager,
PDEU, Village Raisan
Gandhinagar -382 426

SUB : OFER FOR SINKING OF TUBE WELL AND INSTALLATION OF SUBMERSIBLE PUMP FOR PROPOSED SPORTS FIELDS AT PDEU, RAISAN VILLAGE, OPP. LAW UNIVERSITY, NEAR KOBA CIRCLE, GANDHINAGAR.

1. Having inspected the site and having examined, conditions of contract specifications and schedule of quantities for the above named work, we, the under signed offer to Carryout, complete and maintain the entire works for the sum of Rs. _____ **(Rupees Only)** on item rate basis mentioned in the schedule of quantities, or such other sum as may be ascertained in accordance with the said conditions of contract, specifications, schedule of rates and time schedules.
2. Our Bid is accompanied with Earnest Money Deposit of Rs. 15,000/- (Rupees Thirteen Thousands Only) as required in the instructions to the Bidders vide DD/Pay order drawn on _____ Bank (DD/Pay Order No _____)
3. We undertake, if our bid is accepted, to commence the works within 7 days of issue of letter informing acceptance of our bid and complete and same within 25 days (including monsoon period if any) excluding 7 days of mobilization period.
4. We agree to bind ourselves by this bid for a period of 90 days from the date fixed for receiving the same and it shall remain binding on us and may be accepted at any time, before the expiry of that period and/or before the expiry of any further period extended by mutual consent.
5. In case of default by us in any of our obligations in paragraphs 2,3 and 4 above, we acknowledge, you are at liberty to forfeit the Earnest Money deposited herewith.
6. Until formal agreement is prepared and executed, this bid, together with your written acceptance, thereof shall constitute, a binding contract between us together with all the conditions of contract, specifications, schedule of quantities and prices, appendix, drawings, detailed in the specifications and instructions to Bidders etc.
7. We understand that the schedules of quantities given in the schedules are estimated. Actual quantities shall be as per the final works measured as per actual execution. We also understand that you are not bound to accept the lowest or any bid you may receive.

8. We declare that offer submitted herewith is duly examined by us and we agree to all terms and conditions of the bid document without any reservation. Also we confirm that the prices/rates quoted by us are firm and valid for entire period of execution and we shall not make any claim for any escalation on that account. We confirm that we are interested in your contract and shall execute it completely and fully to your entire satisfaction under all circumstances including force Majeure.

Seal of the Company

Signature of the Bidder

Date:

SECTION:III

TECHNICAL SPECIFICATIONS

Boring and Sinking 45 cm. diameter. Tube well with casing pipes as per specifications with any approved system direct rotary or reverse rotary system including construction of Derrick, installation of other equipments such as Pumps, Water Tanks, etc. complete and thereafter withdrawal and removal of the Derrick etc. complete and clearing the site on completion

General :

All work shall be done in a systematic manner in accordance with a programme prepared in consultation with the employer.

Contractor shall make his own arrangement at his own cost for supply of water and power at site required for the work as also for storing materials, watch and ward etc.

Material and Workmanship:

Site Clearance:

The Contractor shall at his own cost clean the site of any trees, growth, grass and rubbish to enable him to execute the work in proper manner.

On successful completion of the work the Contractor shall clean the site of all his surplus material, equipment and accessories.

Requirement: The total yield for the well shall be approximately **35,000 to 40,000 liters / hr.**

Type of Well : Tube well shall be sunk with Hydraulic Rotary Drilling method; either 1) Direct Mud Circulation method or 2) Reverse Circulation method with 20 cm. diameter M.S. well pipes and 20 cm. diameter strainers, gravel packed.

Boring: Boring shall be 45 cm. diameter to approximate depth of 180 meters. The depth may be increased or decreased as per actual site conditions. Sub-Soil water shall not be tapped. Casing pipe shall be extracted after lowering of tube well pipe assembly. Boring shall be done by a hydraulic rotary drilling machine (rig) mounted on a truck.

Well Pipes: Well pipes shall be 20 cm diameter M.S. - E.R.W. pipes to IS : 3589 fully welded using M.S. strips having similar thickness of pipe, preferably **6 mm** marked of Tata. A bail plug with hook shall be provided at the bottom. Casing pipe shall be rust free, varnish and other coatings shall be removed through sandblasting if required and anti corrosive bituminous chemical of approved make shall be coated on the surface.

Strainers: Pipes are with perforation/slotted holes made through mills on surface. All LCG heavy strainer pipes - only Johnson make with horizontal slits of diameter-ERW. The size of the strainer shall be designed to suite the size of water bearing coarse sand, in the midst of which the strainer is to be lowered and fixed. The length of the strainer pipe shall be 150 times its diameter.

Verticality : Well assembly shall be truly vertical as per the latest Indian Standard. The Contractor shall accordingly carry out verticality test and furnish the necessary charts to PDEU.

The verticality of gravel-shrouded tube wells shall be checked immediately after the housing pipes are installed but prior to commencing the gravel filling. If the pipe assembly is found inclined in a slant position before filling the gravels, the assembly shall be pulled in a desired direction by applying force through jacks or by other means with a view to rectifying the slantness and bringing the pipe assembly within the permissible limits of vertically. The gravel operation shall be undertaken immediately after the verticality has been tested and rectified.

For wells encased with pipes less than 350 mm diameter, the verticality of the tube well shall have a deviation not exceeding 10 cm per 30 m of depth of the tube well and the deviation shall be in one direction and in one plane only. If the tube well verticality is beyond the permissible tolerance the entire work done by the Contractor shall be rejected and the Contractor shall have to withdraw tube well pipe assembly and strainers etc. and the Contractor will not be entitled to claim any payment for the rejected work and Contractor has to redo the same at his own cost.

The verticality of the tube well shall be tested by using plumb or plunger, 6 mm smaller in diameter within the inside diameter of the well casing. The plumb may be made from a piece of sheet steel or a short piece of pipe. Whichever is used, it shall be heavy enough to keep the plumb line taut. The hub of the ring shall not be solid as the water shall pass through it as it is lowered in the well. The hole from which the plumb line passes shall be in the exact center of the ring. Knots or marks shall be made every 3 m on the plumb line to indicate the depth to which the ring has been lowered in the well. The plumbing shall be suspended from the guide pulley where it shall be at least 3 m above the top of the well. The guide pulley is fixed on a tripod or frame. The vertical center of the pulley shall be so located that the plumb line comes off its outer edge exactly over the center of the well casing. The method of recording the results shall be as mentioned in the IS:2800.

Gravel Packing :

All gravel shall consist of hard well-rounded particles reasonably uniform in diameter and shall be of a size determined after analyzing the character of the water bearing formation packed.

The thickness (normally a minimum of 100mm) of the gravel shroud around the screen should be carried out to ensure that no sand flows into the shroud under normal operating conditions. Annular space between the strainer and casing is to be packed up with pea-shape gravel (3 mm to 6 mm size), such that shrouding is done up to a height of 3 m. from the top of strainer and to a depth of 1 m. below the strainer. The remaining annular space shall be packed with puddle clay. The feeding of the gravel has to be done in such manner that there is no bridging in the annular space. To avoid bridging, the circulating fluid shall be pumped to agitate the gravel as it is being fed

Payment will be made only for gravel shrouding. No payment will, however, be made for puddle clay packing and the rates shall be deemed to be inclusive of the same.

Development :

The well shall be developed by an over-pumping unit or an air compressor with **900 cfm / 200 psi to make the tube well water completely sand free for minimum 4 hours**. The development process shall be continued until the stabilization of sand and gravel-pack is completely assured. The discharge of water during development should correspond to the depression of 50% higher than the normal depression at which the tube well will be later pumped on continuous duty. The final discharge at working depression obtained at the well, should be free from sand during the operating test run.

Where a depression of 50% higher than the normal depression cannot be arranged, the tube well may be over-developed so as to yield a discharge 20% in excess of the rated discharge.

After the installation of pumping set the tube well water shall remain sand free after a trial run of 8 hours a day for one month. The Contractor shall have to ensure complete sand free water supply from the tube well.

Yield Test: This test is to establish the yield of the aquifer and to decide the capacity of pump. A pump should run on constant discharge rate and water level measured at very close interval time during initial stage of pumping. After 4 hrs. Continuous running of pump, the same may be stopped and water level noted at close intervals as the recouping process continues until water level again attains the original static level. This should be continued till this status is achieved.

Data: The contractor shall provide necessary data regarding yield and depression.

Water Tests: The Contractor shall get the water tested for its quality by an approved Private or Government Health Laboratory. Bacteriological and Chemical tests shall be conducted at any intermediate level and also after the development of well as directed by the employer. The tests reports shall be submitted to the employer.

Soil Samples: Samples of stratum shall be taken at every 10 ft. or often if the strata changes. The samples shall be carefully indexed and preserved at site for inspection by the Engineer-in-charge.

Strata Chart:

A strata chart in a standard tube well form shall be maintained at the site and shall give the following information :

- a. Description and depth of strata.
- b. Spring level below ground level.
- c. Aquifer opposite which strainer pipes have been placed.
- d. Position of joints in strainers and/or blind pipes.
- e. Rate of progress of drilling.
- f. Full particulars of final test.
- g. Cement ceiling depth, quantity of gravel, compressor hours.

Four copies of strata charts, yield and water supply quality tests shall be handed over to the employer on completion of the well.

Failure : In case of failure to obtain water or water in required quantity, the Contractor shall only be paid for Labour rate for boring as per length or bore actually done at site. No other claims shall be entertained by PDEU.

SECTION:IV
SCHEDULE OF QUANTITIES

Name of Work : Sinking of Tube well and Installation of Submersible Pump at “Proposed Sports Fields at PDEU , Village Raysan, near Koba Circle, Gandhinagar.

NOTE : All the materials to be used shall confirm with relevant IS Specifications

Sr. No.	Description	Unit	Quantity	Rate (Rs.)	Amount (Rs.)
1.	<p>Boring of 450 mm diameter of tube well for depths as mentioned below with any approved system by direct rotary drilling or reverse rotary drilling system including construction of Derrick, installation of other equipments such as Pumps, Water Tanks, etc. complete and thereafter withdrawal and removal of the Derrick etc. complete as instructed and directed by Engineer – in – charge.</p> <p>a. Up to 40 mts from G.L.</p> <p>b. From 41 mts to 70 mts</p> <p>c. From 71 mts to 100 mts</p> <p>d. From 101 mts to 130 mts</p> <p>e. From 131 mts to 160 mts</p> <p>f. From 161 mts to 190 mts</p> <p>g. From 191 mts to 210 mts</p>	Rmt	40.00		
		Rmt	30.00		
		Rmt	30.00		
		Rmt	30.00		
		Rmt	30.00		
		Rmt	30.00		
		Rmt	30.00		
2.	Carrying out Electro Logging for the bore and submitting the test report and strata chart etc., complete as instructed and directed by the Engineer – in – charge .	Job	1.00		
3.	Providing and lowering of Casing pipes of 200 mm diameter M.S. - E.R.W. pipes IS: 3589 fully welded using M.S. strips having similar thickness of pipe, 6.0 mm of Tata make including necessary welding. Casing pipe shall be rust free, varnish and other coatings shall be removed through sandblasting if required and anti corrosive bituminous paint of approved make shall be coated on the surface etc., complete as instructed and directed by Engineer – in – charge.	Rmt	157.00		

	<i>Note : The quoted rates include for providing and installing all necessary equipments which includes welding charges and providing of top cap, clamps (two sets), reducer etc., complete and any other required for the same.</i>				
4.	Providing and lowering of 200 mm diameter 3 mts long bail plug to the bottom of the bore well etc., complete as instructed and directed by the Engineer – in – charge.	Nos	1.00		
5.	Providing and lowering of 200 mm diameter Low Carbon Galvanized Steel (LCG) strainer pipe of Johnson make “A” Grade having slot size of 1 mm to suite the size of water bearing coarse sand, in the casing pipe to the required depth etc., complete as instructed and directed by the Engineer – in – charge.	Rmt	42.00		
6.	Supplying, washing and shrouding with approved gravel of size 3 to 6 mm between the annular gap of casing pipe and the remaining annular space to be filled with puddle clay (Clay Balls) complete as instructed and directed by the Engineer – in – charge.	Job	1.00		
7.	Carrying out development of well using compressor of not less 900 cfm / 200 psi to make the tube well water completely sand free for minimum of 4 hours including necessary drop line for different levels of tube well etc., complete as instructed and directed by the Engineer – in – charge .	Job	1.00		
8.	Supplying and lowering of 65 mm diameter UPVC of “Ashirvad heavy duty” with locking arrangement column pipe including necessary G.I. C Class bend, fittings, two sets of supporting clamps, etc., complete as instructed and directed by the Engineer – in – charge.	Rmt	120.00		
9.	Carrying out yield test and submitting the report.	Job	1.00		
10.	Miscellaneous items like digging of pit,				

	approach to site, etc., complete as instructed and directed by the Engineer – in – charge.	Job	1.00		
11.	<p>Supplying, installing, commissioning and testing of submersible pump with necessary cables and electrical starter panel board as per the following specifications</p> <p>a. Electrically driven submersible pump of Grundfos or equivalent make, 25 HP 25 stage (stage as per manufacturer’s spec), BPD 242/12 A, 415 V AC three phase complete as approved (actual capacity of pump required to be confirmed after electro logging test)</p> <p>b. Supplying, installing & connecting & terminating on site suitable flat PVC insulated & over all PVC Sheathed, flexible copper conductor 3 core 4 sqmm double cable (Finolex make) colour coded confirming to IS 694:1990 clamped with PVC clamps at every 1.5 mts.</p> <p>c. Supplying, erecting, commissioning and testing at site fully automatic star delta starter panel of Sun make for pump as specified above (Item 11a) with following components.</p> <ul style="list-style-type: none"> • Incomer : 63 A 4 Pole MCB Isolator, HRC Cartridge fuse with fuse base and fuse carrier • 0 – 63 A Ammeter with selector switch and suitable current transformers • 0 – 500 V Voltmeter with selector switch and HRC control fuses • Cluster LED type phase indicating lamps (3 nos) • 63 A, 3 Pole power contactors (3 nos) with required NO – NC contacts • Auxiliary power contactors, if any 	Nos	1.00		
		Rmt	260.00		
		Nos	1.00		

	<ul style="list-style-type: none"> • Suitable Thermal Overload Relay • Suitable approved make Electronic Timer • Single phasing preventer • Cluster LED type indicating lamps for fault indication (O/L trip, Single phasing, etc.,) • Water level guard with necessary wires for dropping of probe along with submersible pump • Internal power wiring shall be done using 10 sqmm flexible Cu wires only • Terminal Connectors 				
12.	Providing and fixing of M.S. Box of required size for starter Panel board made of 16 gauge sheet with a provision of lamp holder and push switch, necessary wiring for the same, locking facility with supply of 3 key Godrej pad lock of 6 levers, painted with one coat of zinc chromate and three coats of enamel paint, erected at a suitable height of not less than 1.50 mts the vertical supports should be of angle 50 x 50 x 6 including necessary concreting etc., compete as instructed and directed by Engineer – in – charge.	Nos.	1.00		
13.	Carrying out chemical and bacteriological testing of tube well water as per norms laid by IS 10500 from approved laboratory including necessary submission of reports.	Job	1.00		
	Total Amount in Rupees				

Amount in Words : Rupees

Seal and Signature of Contractor:

Date :