REQUEST FOR QUOTATION
SUBMIT BID TO
PURCHASING DIVISION
SHAWNEE COUNTY COURTHOUSE
Room 201
Topeka, Kansas 66603

QUOTATION NO.	013-19	VENDOR_____
DATE MAILED	01-30-19	ADDRESS_____
CLOSING 2:00 P.M.	02-18-19	PHONE_____

THIS IS NOT AN ORDER

1. In communications always refer to the above quotation number.
2. In order to receive consideration, one copy of this request for quotation with your bid properly filled in must be signed and returned by the specified closing date.
3. All prices and conditions must be shown. Additions or conditions not shown on this bid will not be allowed.
4. Contracts or purchase orders resulting from this quotation may not be assigned without written prior consent of the Purchasing Division.
5. The Purchasing Division reserves the right to accept or reject any part of, or all of, any bid or proposal.
6. All prices quoted are to be less Federal Excise Tax and Kansas Sales Tax.
7. Failure to respond to RFQ may result in termination of future mailings.

ITEM AND DESCRIPTION

Shawnee County is soliciting sealed bids for purchase of submersible propeller pumps and associated controls for the Adventure Cove at Lake Shawnee, per the following minimum specifications.

Bid results will not be given over the telephone. Results may be obtained by attending the public bid opening or by sending a self addressed stamped envelope to the Purchasing Division with your request for bid tabulation. Bid results will be posted to the website at our earliest convenience.

NOTE: If your company resides in a locale which has a local preference law, please state what that preference is _____. If there is no preference in your locale please answer by stating NONE. FAILURE TO RESPOND TO THIS PART OF THE SPECIFICATION MAY RESULT IN REJECTION OF YOUR BID.

NONDISCRIMINATION: Shawnee County is committed to the concept of equal employment opportunity. All bidders and contractors are expected to comply with the provisions of K.S.A. 44-1030 and 44-1031, copies of which are attached and shall be a part of this contract and other applicable Federal and Kansas laws governing equal employment opportunity.

In accordance with K.S.A 44-1030, vendor hereby agrees to the following:

A. He or she will observe the provision of the Kansas Commission on Human Rights and will not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex, national origin, ancestry, or physical disability.

B. In all solicitations or advertisements for employees, he or she will include the phrase, "Equal Opportunity Employer", or a similar phrase to be approved by the Kansas Commission on Human Rights

C. If he or she fails to comply with the manner in which he or she will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Shawnee County, Kansas

D. If he or she is found guilty of a violation of the Kansas Act Against Human Rights under a decision, or order of the Kansas Commission on Human Rights which has become final, he or she will be deemed to have breached the present contract, and it may be canceled, terminated, or suspended, in whole or in part, by Shawnee County, Kansas; and,

E. He or she will include the provisions of subsections (a) through (d) inclusively of this paragraph in every subcontract or purchase order so that such provision will be binding upon such subcontractor of vendor.

BID FORMS: Bid forms are to be completed, signed and returned to Shawnee County Purchasing Department, 200 SE 7th St., Room 201, Topeka, KS 66603. Bids shall be submitted on or before the date and time set for closing of bids. Bids must be securely sealed in an envelope addressed and marked on the outside with the name and address of bidder, quotation number and closing date in the lower left-hand corner. Bids by telephone or telegraph, or facsimile will not be accepted.

SIGNATURE OF BIDS: Each bid must show in the space provided the complete business or mailing address of the bidder and must be signed by him with his usual signature.

CLOSING DATE: Sealed bids will be received until 2:00 p.m. CST, on the scheduled closing date at which time they will be opened and publicly read. The time clock stamp in the Purchasing Department will conclusively determine the time of receipt. Bids received after the scheduled closing time will not be considered. Bids that do not carry proper identification

may be rejected. The Purchasing Division will accept no responsibility for the premature opening of a bid not properly identified on the outside of the envelope.

MODIFICATION OF BIDS: Bids already submitted may be modified by letter or telegraph provided modification request is received in the Purchasing Division prior to the time set for closing of bids.

WITHDRAWAL OF BIDS: Bids already submitted may be withdrawn upon proper identification of bidder and provided request is received prior to time of closing. Negligence on the part of the bidder in preparing the bid confers no right for the withdrawal after the time set for closing of bids.

NOTICE TO SUCCESSFUL BIDDERS: The successful bidder will be notified by letter or telephone as soon as possible after bids have been opened, tabulated, and analyzed.

NOTICE TO UNSUCCESSFUL BIDDERS: Unsuccessful bidders will not be notified.

NOTE: In the event that goods or services delivered by the vendor are unsatisfactory and remain unsatisfactory after a notice and an opportunity to correct the deficiencies, the County reserves the right to purchase substitute goods or services from the other bidders.

Shawnee County reserves the right to negotiate separately with any vendor after the opening of this RFQ when such action is considered in its best interest. Subsequent negotiations may be conducted, but such negotiations will not constitute acceptance, rejection or a counteroffer on the part of the County.

Shawnee County interprets the term “lowest responsible and best bidder” as requiring Shawnee county to :

A. Choose between the kinds of materials, goods, wares, or services subject to the proposal, and

B. Determine which proposal is most suitable for its intended use or purpose. Shawnee County can consider among other factors such things as labor cost, service and parts availability and maintenance costs of items upon which proposals are received. Shawnee County can determine any differences or variations in the quality or character of the material, goods, wares or services performed or provided by the respective vendors.

Shawnee County will award the bid, if the successful vendor refuses or fails to make deliveries of the materials/services within the times specified in the RFQ, purchase order or contractual agreement, Shawnee County may by written notice, terminate the contract OR purchase order. The successful vendor will certify and warrant that goods, personal property, chattels, and equipment sold and delivered are free and clear of any and all liens, or claims of liens, for materials or services arising under, and by virtue of the provisions of K.S.A. 58-201, et seq., and any other lien, right, or claim of any nature or kind whatsoever.

The vendor hereby certifies that he or she has carefully examined all of the documents for the project, has carefully and thoroughly reviewed this RFQ, understands the nature and scope of

the work to be done; and that this proposal is based upon the terms, specifications, requirements and conditions of the RFQ, and documents. The vendor further agrees that the performance time specified is a reasonable time, having carefully considered the nature and scope for the project as aforesaid.

Shawnee County will use discretion with regards to disclosure of proprietary information contained in any response, but cannot guarantee the information will not be made public. As a governmental entity, Shawnee County is subject to making records available for disclosure pursuant to the Kansas Open Records Act. Any confidential or proprietary information should be clearly marked.

Shawnee county reserves the right to enter into agreements subject to the provisions of the Cash Basis Laws (K.S.A. 10-1112 and 10-1113), the Budget Law (K.S.A.79-2935). Agreements shall be construed and interpreted so as to ensure that the County shall at all times stay in conformity with such laws, and as a condition of agreements the County reserves the right to unilaterally sever, modify, or terminate agreement at any time if, in the opinion of its legal counsel, the Agreement may be deemed to violate the terms of such law.

The vendor certifies that this proposal is submitted without collusion fraud, or misrepresentation as to other vendors, so that all proposals for the project will result from free, open, and competitive proposing among all vendors.

This Request for Quotation, responses thereto and any contract documents will be governed by the law of the State of Kansas. Any dispute arising out of the same will be litigated only within the courts of the State of Kansas.

Vendor agrees that all data, documents, and information, regardless of form that is generated as a result of this Request for Quotation are the property of Shawnee County. The County shall not be liable to reimburse any vendor for the costs of creating, compiling or delivering the same to the County.

The County is exempt from the payment of Federal and excise taxes and from Kansas sales tax.

QUOTATION NO. 013-19

DATE MAILED 01-30-19

CLOSING 2:00 P.M. 02-18-19

All bids received on or before the specified bid closing time and date shall be publicly opened, read aloud and properly recorded on the bid tabulation sheet. Subsequent to the bid opening, all bids shall be thoroughly evaluated and a determination made as to their compliance with applicable specifications. The appropriate County department heads and the architect or engineer as applicable shall make this determination jointly. Upon completion of the above determination, an analysis of all bids submitted shall be prepared and formally presented to the Board of County Commissioners for acceptance and approval of the lowest and/or best bid. The Board of County Commissioners reserves the right to accept or reject any and/or all bids and to waive any irregularities or informalities therein.

Please refer questions to Shawn Osborne 785-251-6810 or shawn.osborne@snco.us

_____

Michele Hanshaw, Purchasing Division

SHOW TERMS _____

DELIVERY WILL BE MADE _____

F.O.B._____

SIGNED_____

PRINTED NAME _____

TITLE_____

PHONE NO._____FAX_____

E-MAIL._____

GENERAL

1.1 SUMMARY

A. This section covers submersible direct drive propeller pumping units. Each pumping unit shall be complete with a submersible electric motor that is an integral part of the pumping unit, a wall-mounted discharge sleeve; guide rails; and all other appurtenances specified or otherwise required for proper operation. All equipment shall be suitable for immersion and operation in lake water. Related components for the pump station are given in Division 22 and Division 26.

1.2 GENERAL

A. Equipment furnished under this section shall be fabricated and assembled in full conformity with drawings, specifications, engineering data, instructions, and recommendations of the equipment manufacturer unless exceptions are noted by the Purchaser. Hydraulic considerations and definition of terms shall be as set forth in the Hydraulic Institute Standards. Electric power to the pump motors will be as described below.

1.3 PERFORMANCE REQUIREMENTS

A. The number of propeller pumps shown on the drawings shall be furnished and installed in the vault structure. Pumps shall be capable of pumping lake water as specified. Pumps will be operated intermittently. Pumps shall be supplied with compatible accessory design equipment as specified elsewhere in this section.

	Refresh Pump Station
Number of Unit(s)	2
Capacity at rated head, one pump operating	6,400 gpm
Rated Head, one pump operating	1.55 ft TDH
Static Head	0 ft
Pump Hydraulic Efficiency (min)	48%
Maximum pump operating speed at rated head, rpm	584 rpm

Maximum motor hp rating	12.1 HP

Bottom of Vault, Elevation	Drawings upon request
Top of Vault, Elevation	Drawings upon request

1.4 DESIGN REQUIREMENTS

Pump performance shall be stable and free from cavitation and noise throughout the specified operating head range at minimum submergences. The pump shall be designed to be non-overloading across the entire pump curve.

1.5 SERVICE CONDITIONS

A. The temperature of pumped liquid will normally range from 32°F to 85°F.

1.6 SUBMITTAL DATA

A. Complete assembly, and installation drawings, together with detailed specifications and data covering materials used, parts, devices, and other accessories forming a part of the equipment shall be provided to the Engineer.

B. Pump manufacturer shall provide a current installation list of the same pumps bid on the project as well as evidence of local service capabilities or agreements. This shall be reviewed and considered along with other pertinent pump information in the submittal.

C. A certificate of compliance and operation and maintenance data shall also be provided with the submittal data. The certificate of compliance shall be furnished by the pump manufacturer or supplier and shall certify that all components furnished comply with the requirements specified herein. All deviations from the specifications shall be noted.

D. Contractor shall furnish operation and maintenance information per Section 01 7700 “Contract Closeout”. Operation and maintenance data shall also include the following:

1. Equipment function, normal operating characteristics, and limiting conditions.
2. Assembly, installation, alignment, adjustment, and checking instructions.
3. Operating instructions for startup, routine and normal operation, regulation and control, shutdown, and emergency conditions.
4. Maintenance instructions.
5. Lubrication schedule.
6. Guide to troubleshooting.
7. Parts list and predicted life of parts subject to wear.
8. Outline, cross-section, and assembly drawings; engineering data; and 6 sets of wiring diagrams for the pumps and controls.
9. Test data and performance curves, where applicable.

1.7 SHIPPING

A. The pumping units and all appurtenances shall be suitably packaged to facilitate handling and protect against damage during transit and storage. All equipment shall be boxed, crated, or otherwise completely enclosed and protected during shipment and handling. All equipment shall be protected from exposure to the elements and shall be kept dry at all times. Equipment shall not be stored outside. Painted surfaces shall be protected against impact, abrasion, discoloration, and other damage.

1.8 SPARE PARTS

A. A complete set of seals, O-rings, gaskets, bearing set, one spare mechanical seal set, consisting of an upper and lower seal, and associated SS hardware shall be furnished for each pump. Spare parts shall be suitably packaged with labels indicating the contents of each package.

1.9 SPARE PUMPS

A. No spare pumps are required.

1.10 WARRANTY

A. The warranty for all equipment shall include a full one-year warranty for parts and labor and a prorated five-year warranty.

1.11 Quality Assurance

A. The pumping unit shall undergo a non-witnessed complete factory test under the specified system conditions. Any deficiencies found with the pumps shall be corrected prior to pump shipment. Full documentation shall be maintained by the manufacturer showing flow rates, total head, and amp draws for future service and troubleshooting reference.

PART 2 - PRODUCTS:

2.1 PUMPING EQUIPMENT

A. Acceptable Products: The pumping equipment furnished under this specification shall be as manufactured by ABS, Flygt, or Landia. The products of other manufacturers will not be acceptable.

B. Power Supply: Utility power will be 480-volt, three phase.

C. Painting: All iron and steel parts which will be in contact with pumped liquid or submerged after installation, shall be shop cleaned in accordance with the coating manufacturer’s recommendations and painted with an epoxy coating system. The coating shall have a dry film thickness of at least 16 mils and shall consist of a prime (first) coat and one or more finish coats. Coating system shall be submitted to the Engineer for approval.

D. Components:

1. Propeller: The propeller shall be self-cleaning backward curved design preventing material buildup on the blades that decreases pump performance and increases vibration. Each blade shall be precision cut and welded to the hub. Each propeller shall be dynamically balanced so its imbalance is less than ISO 1940 G6.3 tolerances preventing excessive vibration or other unsatisfactory characteristics when the pump is operating.

The propeller shall be capable of handling solids, fibrous materials, sludge and other matter normally found in sewage, water, wastewater, etc. applications.

2. Shaft: The propeller and motor shaft shall be an integral unit. The shaft shall be of stainless steel and designed to resist the maximum forces generated by the pump. The pump shaft shall have machined shoulders to permit exact bearing, seal and propeller placement.

3. Shaft Seal

The mixer shall be provided with a triple seal system consisting of one (1) mechanical seal on the outer side and one (1) mechanical seal and one (1) radial shaft seal in tandem on the inner side, each working independently of the other in its own separate oil chamber. The outer seal faces shall be industrial duty silicon carbide and the inner seal carbon/high chrome steel. Each seal interface shall be held in contact by its own spring system.

The seals shall not require routine maintenance, or adjustment, and shall not be dependent on the direction of rotation for proper sealing.

The seal system shall not rely upon the mixed media for lubrication and shall not be damaged when the mixer is run dry.

Lubricant in the chamber shall be environmentally safe non-toxic material.

The following seal types shall not be considered equal: Seals of proprietary design, or seals manufactured by other than major independent seal manufacturing companies. Seals requiring set screws, pins, or other mechanical locking devices to hold the seal in place, conventional double mechanical seals containing either a common single or double spring acting between the upper and lower seal faces, any system requiring a pressure differential to seat the seal and ensure sealing.

4. Mechanical Seal Protection System

The primary mechanical seal shall be protected from interference by particles in the wastewater, including fibrous materials, by an active Seal Protection System integrated into the propeller. The back side of the propeller shall be equipped with a sinusoidal cutting ring, forming a close clearance cutting system with the lower submersible motor front cover. This sinusoidal cutting ring shall spin with the propeller, providing a minimum of 72 shearing actions per revolution.

Particles or fibrous material which attempt to lodge behind the propeller, or wrap around the

mechanical seal shall be effectively sheared by the active cutting system into particles small enough to prevent interference with the mechanical seal. The Seal Protection System shall operate whenever the pump operates, and shall not require adjustment or maintenance in order to function.

Submersible pump designs which do not incorporate an active cutting system to protect the primary mechanical seal shall not be considered acceptable for wastewater service.

In addition, each pump shall be equipped with a solids deflection ring to prevent seal failure due to interference from fibrous material contained in the mixed liquid and to minimize solids contact with the seals.

5. Oil Chambers

The mixer shall have two separate oil chambers located between the outer and inner mechanical seals and between the inner mechanical seal and inner lip seal.

Each oil chamber shall hold a sufficient quantity of oil to provide lubrication and cooling for the shaft seals.

The oil shall also act as a sensing medium for the seal monitoring system to detect the presence of moisture.

6. Seal Failure Warning System

An electrical probe shall be provided in the oil chamber to detect the presence of water in the oil. A solid-state device mounted in the pump control panel or in a separate enclosure shall send a low voltage, low amperage signal to the probe. If water enters the oil chamber, the probe shall signal the solid state relay in the control panel. The relay shall then energize a warning light on the control panel, and cause the pump to be shut down. Float switches, dual probes, or any other monitoring devices located in the stator housing are not considered to be early warning systems, and shall not be considered equal.

7. Bearings: The pump shall rotate on two (2) permanently lubricated bearings. Bearings shall be of single row, deep grooved design and sized to transfer all radial and axial loads to the pump housing and minimize shaft deflection for increased bearing and seal life. Bearings shall be maintenance free with a minimum L-10 bearing life of 100,000 hours at design conditions.

8. Flow Ring/Bracket Assembly: The pump shall incorporate a 360-degree flow ring/bracket assembly around the propeller. A close clearance shall be maintained between the propeller tip and the flow ring in order to maintain high hydraulic efficiency and low power consumption.

9. Elastomers: All mating part surfaces of the pump shall be machined and fitted with static O-rings providing watertight sealing. Mating surfaces shall be designed to provide watertight seals when metal to metal contact is made resulting in controlled compression of the O-rings without special torque requirements. No secondary sealing compounds,

rectangular gaskets, elliptical O-rings, grease or other devices shall be used.

10. Guide Rails: Each pumping unit shall be equipped with a guide rail constructed of Type 316, stainless steel pipe. Guide rails shall extend upward from the discharge assembly to the top of the vault access grating at the top of the vault. An upper guide rail bracket shall be provided and shall be AISI Type 316 stainless steel. The upper guide bracket shall be provided with a support bracket for control and power cables.

11. Lifting Bale and Chain: The pump shall be equipped with an open lifting bale suitable for the attachment of standard cable fittings or for hooking from the wet well surface. The bale shall be stainless steel and shall be rated to lift a minimum of four times the pump weight. Each pump shall be furnished with a full length plus 5 feet above vault access opening of 316 stainless steel 1/4" minimum lifting cable. This shall include one screw pin anchor shackle for attachment to the lifting bale of the pump.

12. Anchor Bolts: Stainless steel per Section 05 50 00.

2.2 ELECTRIC MOTORS

A. Each pump motor shall be of the squirrel-cage, induction, shell type NEMA B design, housed in an air filled watertight chamber. Stator windings and leads shall be insulated with moisture resistant Class H insulation which will resist a temperature of 155 C (311 F). The stator shall be dipped and baked three (3) times in Class H varnish. The motor shall be designed for continuous duty, capable of sustaining (10) evenly spaced starts per hour. The rotor bars and short circuit rings shall be constructed of aluminum.

B. Thermal Protection: Each motor shall contain a set of three bi-metallic temperature monitors in the stator windings; one in each phase. The monitors shall be connected in series and coupled to the contactor in the control panel to provide over temperature shutdown of the motor. The temperature setting shall be 140°C ± 5°C (284°F± 9°F). The temperature monitors shall automatically reset once the stator temperature returns to normal.

C. Each motor shall be capable of continuous operation in air (unsubmerged) for at least 2 hours without exceeding the temperature rise limitations for the motor insulation system.

D. Each motor shall be capable of reverse rotation without damage to the electrical components.

E. The cable entry shall be an integral part of the upper lid. The cable entry shall be comprised of a single cylindrical elastomer grommet flanked by stainless steel sealing washers designed with a close tolerance fit against the cable(s) outside diameter and the entry inside diameter. This will provide a leak proof, watertight seal at the cable entrance without the need for specific torque requirements. The assembly shall be supported by a shoulder in the upper lid and be evenly compressed by four (4) hex head screws threaded into the upper lid. Epoxies, silicones, or other secondary sealing materials or systems using split grommets shall not be considered acceptable.

The connection chamber and motor compartment shall be isolated from each other. Isolation and sealing shall be accomplished through the use of O-rings and compression grommets, providing a watertight seal.

Electrical connections between the mixer cable(s) and the motor leads shall be made via a post type terminal board located in the connection chamber.

F. Each pump shall be supplied with motor power and control cable(s) for the pump protection devices. Each power cable assembly shall contain a grounding conductor. All cables shall be rated for submersible use which shall be indicated by a code or legend permanently embossed in the cable. Cable sizing shall conform to NEC requirements. The pump supplier shall supply enough cable to terminate all conductors in the junction box as indicated on the drawings, with enough slack in the cable to keep the cable from being damaged.

G. Cable in the vault shall be supported by stainless steel kellums or woven grips to prevent damage to the cable insulation. Grips shall be heavy duty, double eye, closed mesh, double weave type, for cables one inch and larger and a single eye for cables smaller than one inch.

2.3 CONTROLS

A. The pump manufacturer shall supply a control panel for the station. It shall be designed to operate two pumps as specified herein. The control panel shall be housed in a NEMA-3R, 304 Stainless Steel enclosure equipped with main disconnect switch. A pad-lockable operator in the 'OFF' position shall be provided for the main disconnect switch. Enclosure door shall have a 3 point pad-lockable operator. All components, switches, indicator lights, etc. shall be mounted on the exterior door to be easily visible without opening the enclosure. The control panel shall be UL 508 approved as a complete assembly. The control system shall be designed and tested at the pump manufacturer's facility, or by the pump manufacturers listed control panel supplier. Documentation on the warranty for the control system shall be provided by the pump manufacturer or their listed supplier, not the local representative or distributor.

B. The pumps shall be controlled by an automatic timer in auto. The timer shall be adjustable in 1 minute increments. The time shall have an internal real time clock. The system shall have the ability to have multiple on-off cycles per day based on a run time and a stop time, and a 'No Run' time period settable as needed by the end user based on the real time clock. The time will only control the lead pump. The controller shall have an alternator to switch the lead pump after each run cycle. The operator shall have the option to select the pump 1 as lead, pump 2 as lead, or automatic alternation at the end of each run time from a front panel mounted switch. The timer can be a small user friendly PLC provided that the programming software are free to the end user and no subscription fees apply. Unit will have a non-volatile memory for user setting retention.

C. The controls shall include, but not be limited to, the following: Main disconnect switch, main power supply lightning/secondary surge arrestor, control power supply surge arrestor, power/phase monitoring relay (which controls power on light), individual pump circuit breaker/disconnect, variable frequency drives, speed potentiometers, electronic alternating controller, hand-off-auto selector switches for each pump, 1-ALT-2 switch, pump on lights, pump seal alarm lights, and pump over-temp lights. An elapsed time meter shall be provided for each pump. There shall be a low level alarm light on the panel that is wired to a low level float switch. This circuit will not allow the pumps to operate during a low level condition. An adjustable delay timer (0-12 hours) must time out before the pumps can operate again. A remote mounted alarm beacon shall be-mounted on top of the control panel. Auxiliary (4) 20A, 1P 120 volt circuit breakers shall be provided for (1) controls, (2) alarm, (3) receptacle, (4) spare. Terminals shall be provided for connection of pumps, control, and alarm wiring.

D. The controls shall also include seal and motor over temperature sensors for monitoring moisture in the pump or an over temperature condition. These modules shall be recommended by the pump manufacturer to maintain the pump warranty.

E. Normal Operation shall be as follows:
Lead Pump ON: Time Set Point 1
Lead Pump OFF: Time Set Point 2
No Run Time: Time Set Point 3

F. Pump Alarm Conditions:

Upon a pump seal alarm the pump will be shut off and a door mounted red pilot light shall illuminate, indicating that the pump will need to be serviced. There will be a manual reset pushbutton after the seal alarm has been addressed.

Upon an overload, the pump will shut off and will restart after the overload has been manually reset. This will activate the red beacon light.

Upon a pump overtemp the pump will be shut off and a door mounted red pilot light shall illuminate. The pump will restart after the thermal switches in the motor have automatically reset. There will be a manual reset pushbutton on the panel to allow the pump to go back into operation after the overtemp condition has cooled down.

A set of "Form C" dry contacts, wired to terminals, are provided for control power on, Pump 1 on, Pump 2 on, Pump 1 failure (seal, overtemp, overload, power phase problem), Pump 2 failure, Pump 1 available, Pump 2 available.

2.4 ELECTRICAL EQUIPMENT

A. Enclosure shall be of NEMA 3R design. Enclosure shall be manufactured from 12 gauge stainless steel. Back panel shall be of 12 gauge mild stainless steel. Enclosure size shall be 36" high x 30" wide x 8" deep, minimum.

B. Branch circuit breakers for 208/230 volt systems shall be large frame, Square D 'H' series or equal, with a minimum rating of 22KAIC at the required voltage of the panel.

C. Variable frequency drives shall be Yaskawa or approved equal. Drive speed will be controlled by a speed potentiometer located on the inner door. An inner door mounted keypad operator will be supplied. Proper ventilation and atmospheric control shall be provided for proper operation.

D. Lightning/surge arrestors shall provide 175 volts as phase to ground protection for 3 phase systems. Arrestors shall be a Square D Model SDSA or approved equal.

E. A condensation heater shall be sized to prevent buildup of condensation within the control panel. A thermostat shall be provided.

F. Duplex GFCI receptacle shall be capable of supplying 20 AMPS, 120 volts.

G. Power/phase monitor shall be adjustable for monitoring power supply.

H. Control relays shall be of the plug-in-design. Contacts shall be rated for 10 AMPS at 120 volts, and be the indicating type.

I. Selector switches, pilot lights, and pushbuttons shall be compact, oil tight and watertight models. Pilot lights shall be direct voltage with LED lamps for extended life.

J. Elapsed time meters shall be 6 digit, reading in hours, accurate to the nearest 1/10 of the hour, and non-resettable. Display shall be analog.

K. Seal detection relays shall be of a solid state design with a low voltage output.

L. Alarm beacon shall be a red Lexan Model with minimum 60 flashes per minute. Unit shall be provided with an integral ½" pipe mount feature for mounting remote on the control panel.

2.5 START UP TESTING REQUIREMENTS

A. The manufacturer or the authorized representative, in addition to the normal start up procedures, shall perform the following, and provide a report to the Engineer:

1. With a megohmmeter check the motor and power cables insulation resistance. If auto meggering, ensure properly installed and operating.
2. Measure resistance in the pump seal chamber for moisture content and check moisture detector to ensure it is properly installed, operating nd connected int eh motor control circuit and/or a fault alarm and/or indicator lights.
3. Check amperage draw of motor internal thermostats to ensure amperage is below manufacturer's maximum allowable and determine if properly installed in the motor circuit.
4. Measure motor winding resistance, operating voltage and amperage to ensure any unbalance is within the manufacturer's allowance.
5. Check pumps performance with non-intrusive flow meter or sump drawdown calculations and calibrated pressure gauges. Compare capacity, total head and horsepower with factory test or published curves.
6. Provide Owner with a written report including all data recorded and a check list of all services performed.

2.6 MANUFACTURER'S FIELD SERVICE

A. The Contractor shall include with the price bid services of a field service technician. This service shall be for the purpose of check-out, initial start-up certifications and instruction of personnel.

B. A written report covering the equipment manufacturer's field service technician's findings and installation approval shall be submitted to the Engineer covering all inspections and outlining in details any deficiencies noted. Deficiencies shall be corrected by the manufacturer.

C. The Contractor shall connect electrical systems and control system prior to final checkout.
D. The Contractor shall clean the equipment and surrounding area prior to relinquishing responsibility to the Owner.

E. Operation and Maintenance Manuals shall be provides in accordance with requirements contained in this Project Manual.

2.7 START-UP AND OPERATIONS TRAININGS

A. Field service shall consist of service and training trips by certified manufacturer's representative as follows:

1. Start Up: Contractor/Supplier shall provide whatever time necessary to start up and test all pumping units for successful operation prior to operations training.
2. Operations training: This service shall consist of checking all pump units for proper installation, alignment, correct operation.

QUOTATION NO. 013-19

DATE MAILED 01-30-19

CLOSING 2:00 P.M. 02-18-19

SCHEDULE OF PRICES

ITEM	BID PRICE
Submersible pump	$_____
Installation	$_____
Total Bid	$_____

TOTAL BID PRICE (printed)

_____

_____ By:_____

Company or Firm Name

(Please send the original and copy of your bid)

PLEASE SUBMIT THIS AS THE FIRST PAGE OF YOUR BID

44-1030
Mandatory provisions applicable to contracts of the state and other political subdivisions; cancellation, when; application to subcontract; non-application to certain contract. (a) Except as provided by subsection (c) of this session, every contract for or on behalf of the state or any county or municipality or other political subdivision of the state or any agency of or authority created by any of the foregoing, for the construction, alteration or repair of any public building or public work or for the acquisition of materials, equipment, supplies or services shall contain provisions by which the contractor agrees that:

1. The contractor shall observe the provisions of the Kansas act against discrimination and shall not discriminate against any person in the performance of work under the present contract because of race, religion, color, sex physical handicap unrelated to such person's ability to engage in the particular work, national origin or ancestry.
2. In all solicitations or advertisements for employees, the contractor shall include the phrase, "equal opportunity employer," or a similar phrase to be approved by the commission.
3. If the contractor fails to comply with the manner in which the contractor reports to the commission in accordance with the provisions of K.S.A. 44-1032, the contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, whole or in part, by the contracting agency
4. If the contractor is found guilty of a violation of the Kansas act against discrimination under a decision or order of the commission which has become final, the contractor shall be deemed to have breached the present contract and it may be cancelled, terminated or suspended, in whole or in part, by the contracting agency.
5. The contractor shall include the provisions of paragraphs one (1) through four (4) inclusively o this sub-section (a) in every subcontract or purchase order so that such provisions will be binding upon such subcontractor or vendor. (b) The Kansas commission on civil rights shall not be prevented hereby from requiring reports of contractors found to be not in compliance with the Kansas act against discrimination. (c) The provisions of this section shall not apply to a contract entered into by a contractor: (1) Who employs fewer than four (4) employees during the term of such contract; or (2) Whose contracts with the governmental entity letting such contract cumulatively total five thousand dollars ($5,000) or less during the fiscal year of such governmental entity.

44-1031. Same; personnel to be used in performing contracts; reports; non-application to certain contractors. Every person, as defined in subsection (a) of K.S.A. 44-1002, who wishes to enter into a contract which is covered by the provisions of K.S.A. 44-1030 shall upon request of the commission, inform the commission in writing of the manner in which such person shall recruit and screen personnel to be used in performing the contract. The report shall be made on forms to be supplied by the commission. The provisions of K.S.A. 44-1030 and of this section shall not apply to any contractor who has already complied with the provisions of such sections by reason of holding a contract with the federal government or a contract involving federal funds.

History: L.1972, ch.184, & 15; L. 1975, ch. 264, & 8; L. 1977, ch. 183, & 2; July 1.