



CITY OF PALESTINE

REQUEST FOR PROPOSALS (RFP)

DECANTER CENTRIFUGE PURCHASE: RFP 2021-002

Sealed Proposal Bids Due Date: Monday, June 28, 2021 at 3:00 p.m.

I. PURPOSE

The City of Palestine (City) is soliciting Request for Proposals (RFP) on the purchase of a Decanter Centrifuge for the Wastewater Treatment Plant.

Sealed Proposals are due to the City Secretary's Office by **Monday, June 28, 2021, at 3:00 p.m.** Sealed proposals will be opened during the Palestine City Council meeting on **Monday, June 28, 2021 at 5:30 p.m.** In order to be considered, the sealed proposal must address each required qualification in the Decanter Centrifuge Specifications.

II. PRODUCT DESCRIPTION

We are seeking to add one new Decanter Centrifuge including control panel with on-site personnel for modification, removal and disposal of the old centrifuge and installation of the new centrifuge, functional testing, start-up and operator/maintenance training. The new centrifuge shall be of similar size, capacity, footprint and power requirement of the existing centrifuge.

A complete product specification requirements document is attached.

Market Conditions

The City is aware of the extreme market fluctuations occurring for equipment, services, etc., so we are striving to arrive at a bid format that satisfies state bid law and also protects vendors against future price increases. To protect the vendor and the City, we will ask your company to establish a baseline price for the services and products listed. Prices can be negotiated after bids are opened. Then, based on increases and decreases that occur to the listed products over the term of the agreement, the City will allow increases or decreases in the same amount as the market changes. However, the winning vendor(s) will be asked to provide documentation proving a change in price has occurred. If prices decrease over the term of this agreement, the winning vendor(s) will be expected to pass along these decreases in pricing. The City will assume that by submitting a bid under this format that your company agrees to this market protection. If you have a different method of price protection, please include your information in your response.

IV: GENERAL INFORMATION

The City of Palestine is a home rule City located in Anderson County and has a population of approximately 18,712 per the 2010 U.S. Census estimate. The City operates under a Council-Manager form of government with a Mayor, six (6) Council Members, and a City Manager. The Council Members are elected from single member districts, with the Mayor elected at large. The City Manager is the Chief Executive Officer of the City. It is the City Manager's duty to execute and implement policies as established by the City Council.

V. SUBMISSION OF RESPONSE

Delivery: Proposals must be sealed. Proposals may be mailed or hand-delivered to the City of Palestine, City Secretary. Sealed Proposals for Decanter Centrifuge Purchase are due to the City Secretary's Office by **3:00 p.m. on Monday, June 28, 2021.**

Proposal packets are required to include eight (8) copies.

Also, include any breakdown of vendor requirements to comply with City of Palestine specifications and/or applicable stipulations regarding this centrifuge purchase.

Please include on the sealed bid envelope:

“SEALED RFP 2021-002 – TO BE OPENED: MONDAY, JUNE 28, 2021 AT 5:30 P.M.”

Proposals received after this time will be returned unopened. The City reserves the right to reject any and all proposals, to request additional information concerning any proposals for purposes of clarification, and to waive any irregularities and informalities in the submittal and evaluation process. This RFP does not obligate the City to pay any cost incurred by respondents in the preparation of the proposals. Furthermore, this RFP does not obligate the City to accept or contract for any implied services.

Mailing Address and Hand Delivery Address:

Teresa Herrera, City Secretary
City of Palestine
ATTN – SEALED RFP 2021-002 – TO BE OPENED: 06/28/2021 AT 5:30 P.M.
504 North Queen Street
Palestine, TX 75801

Your qualification shall be governed by the following schedule:

Friday, June 25, 2021 at 5:00 p.m., Central Standard Time

Deadline for inquiries, questions or requests for information with the Wastewater Treatment Plant. All questions must be submitted in writing to pwadmin@palestine-tx.org.

Monday, June 28, 2020 at 3:00 p.m., Central Standard Time

Sealed, written proposals are due at Palestine City Secretary's Office.

Proposals received after the published deadline shall remain unopened and will be returned to the vendor.

Monday, June 28, 2020 at 5:30 p.m., Central Standard Time

Opening of sealed proposals during the Palestine City Council meeting.

To be considered for this engagement you must meet the qualifications and satisfy the requirements set forth in this RFP.

Communications: All communications regarding the submission of your qualification proposal are to be in writing directly to pwadmin@palestine-tx.org.

VI. QUALIFICATION PROPOSAL INFORMATION

Statement of Qualifications

Each Statement of Qualification (SOQ) must address, but does not need to be limited to, the following information: Respondents shall include:

QUALIFICATIONS AND EXPERIENCE

1. List the name and all addresses of location(s) of your firm, as well as which firm location will be used to provide materials and services to City of Palestine Projects.
2. List all individuals and contact information for who will be providing parts and services for this RFP.
3. List your history (if any) regarding centrifuge equipment and services to the City of Palestine.
4. Describe your involvement with municipalities or other governmental agencies that you have provided Decanter Centrifuge equipment and services for. List any contact information for current/former references for the past five (5) years for governmental clients.

VII. EVALUATION PROCESS

The City of Palestine reserves the right to accept or reject any and all submissions in the best interest of the City. Proposals will remain in effect for 90 days. Proposals cannot be altered or amended after the submission deadline. Any interlineations, alterations or erasures made before bid opening must be initialed by the signor of the proposal, guaranteeing authenticity.

Receiving Bids

Sealed bids will be received by the City Secretary. The time received shall be noted on the envelope or box and initialed.

Bids received after the published deadline shall remain unopened and will be returned to the vendor.

Bid Process

Sealed bids will be opened at a City Council meeting where a majority of the Council is present. The bids shall remain on file, open for inspection in the City Purchasing Office for at least forty-eight (48) hours before the contract may be awarded. Bids that are received, which are unmarked, shall be opened for identification purposes only and resealed. The envelope or box shall be marked accordingly.

After proposals are opened and publicly read, the proposals will be tabulated for comparison on the basis of the bid prices and quantities (lowest responsible vendor) or by the best value method shown in the bid. Until final award of the Contract, the city reserves the right to reject any or all bids, to waive technicalities, and to re-advertise for new bids. The following items will be considered when an award is based on best value:

- The purchase price for equipment and services for Decanter Centrifuge (including cost of delivery)
- The reputation of the bidder and of the bidder's product(s) and services
- The extent to which the product(s) or services meet with municipality's needs
- The bidder's past relationship with the municipality
- The total long-term cost to the municipality to acquire the bidder's product(s) or services

The RFP will be awarded using the following criteria:

- Pricing for equipment and services provided
- Ability to deliver equipment and services to complete project in a timely manner
- The extent to which the equipment and services meet the City's needs
- Quality of equipment and services
- References
- Previous relationship with the City of Palestine

BID AWARD AND PRICING

After your response to this RFP is submitted, the City will negotiate a final price, which is then approved by City Council. Prior to City Council approval, if any market changes occur, the responding vendor must notify the Purchasing Department of this immediately. Once this Council approval occurs, pricing will be subject to the Market Conditions terms listed previously for price increases and decreases. After the bid is awarded and the vendor awarded a contract wishes to approve adjusted pricing to the agreement due to changes in the market, they must do so through certified mail or via e-mail to the Purchasing Department. Documentation verifying the reason for the price increase must be sent as part of the request. Upon review of adjusted proposals, the City of Palestine may elect to dissolve the existing contract upon the expiration date or accept the price increase.

The Review Committee shall be responsible for preparing a tabulation sheet for all bids received that will be made available to the public upon request. The tabulation sheets will be forwarded to the City Council to make the final decision of an award.

Point of Contact

In the event clarification or additional information is needed, contact:

City of Palestine
Public Works Department
1620 West Palestine Avenue
Palestine, Texas 75801
Telephone: 903-731-8423
E-Mail: pwadmin@palestine-tx.org

Notice

Any notice provided by this RFP or required by law to be given to the respondents by City of Palestine shall be deemed to have been given and received on the next business day after such written notice was deposited in the U.S. Postal Service mail facility in City of Palestine, Texas by registered or certified mail addressed to the respondent at the address provided in the sealed respondent. Any interpretations, corrections or changes to this Request of Qualifications will be made by addenda. The sole issuing authority of addenda shall be the City of Palestine City Secretary. Addenda will be mailed to all who are known to have received a copy of this Request for Proposals. Bidders shall acknowledge receipt of all addenda.



Sludge Processing Upgrade – City of Palestine Town Creek Wastewater Treatment Plant-

PART 1.00.2 GENERAL

The City of Palestine currently operates (1) Alfa Laval PM-38000 centrifuge at the Town Creek WWTP. The intent of this specification is to purchase a new decanter centrifuge of similar power requirement and footprint, such that it will fit in the empty slot already in existence on the centrifuge flat. The City seeks a qualified Centrifuge Supplier regularly engaged in the supply of decanter centrifuges and control systems to provide this new decanter along with an operating system of similar design to the existing operating system.

1.01.2 DESCRIPTION

A. The purpose of this project is to add one (1) new Decanter Centrifuge including Control Panel. Provide on-site personnel for modification, removal and installation, functional testing, start-up, and operator/maintenance training.

This project shall be turnkey including removal of any old components, control panels and installation of new Decanter Centrifuge, Control Panel (CCP's) and back drive components.

The work shall be provided by a Centrifuge manufacture currently engaged in the supply of new decanter centrifuges with control systems and is familiar with the sludge dewatering process.

B. This centrifuge shall be of similar size, capacity, footprint and power requirement of the existing centrifuge. The new centrifuge shall include a planetary gearbox driven back drive system.

C. The new centrifuge control panel shall be a UL508A listed assembly and shall contain the following major components; main power disconnect, Main Drive VFD, Feed Pump VFD, Back Drive VFD Torque Control system with power regeneration, PLC system, color touchscreen Operator Interface Terminal (OIT), and required switches, power supplies, relays, fuses, and terminals.

D. The City shall provide a Licensed Electrical Contractor, of their choosing, for the site work to make listed modifications and electrical work required to remove obsolete components, conduit and wiring and install new control panels, motors, conduit and wiring as required per the developed design drawings and instructions.

E. The work required for this project shall be coordinated by a Centrifuge OEM, who will provide guidance for the on-site mechanical and electrical modifications and installation. The Centrifuge OEM shall provide the engineering design, programming, functional testing, and start-up of each upgraded centrifuge control system.



1.02.2 REFERENCES

The design, manufacture, and installation of this equipment shall meet or exceed the applicable provisions and recommendations of the following codes and standards authorities.

- A. AGMA, American Gear Manufacturers Association.
- B. ASME, American Society of Mechanical Engineers.
- C. ASTM, American Society of Testing and Materials.
- D. ANSI, American National Standards Institute.
- E. IEEE, Institute of Electrical and Electronics Engineers.
- F. NEC, National Electrical Code.
- G. OSHA, Occupational Safety and Health Act.

1.03.2 QUALITY ASSURANCE

A. Bidder Qualifications:

1. Bidder must be a centrifuge Original Equipment Manufacturer (OEM) and currently engaged in the design and supply of centrifuges and centrifuge control systems. Confirm this requirement is met with proposal submittal.
2. Provide references with proposal of at least (3) similar projects completed during the last five (5) years. Include information on the machine type, project description, customer name, and customer contact phone number.
3. Centrifuge OEM's facility must be within two hundred (200) miles of the City of Palestine, TX facility.
4. Bidder must have more than fifteen (15) years of experience supplying decanter centrifuges and control systems.

B. Workmanship and Design:

1. All parts of the equipment provided are to be designed and manufactured for long continuous and uninterrupted service. All materials used to be of best quality and entirely suitable for service required.
2. Modifications to the existing control panels shall be made for easy adjustment or replacement of all serviceable parts. A minimum clearance is required for proper maintenance.
3. Electrical work shall be completed by a qualified Electrical Contractor following all trade codes and standards previously listed and per local code requirements.



C. Sub-contractor Services:

1. Electrical sub-contractor shall be provided by the City, to furnish qualified, licensed electricians for the removal of obsolete components and installation and wiring of new components. Provide for disconnection of DC back drive motor and installation and wiring of new AC back drive motor including new wire pulled in existing conduit for motor power. All work to be performed per centrifuge manufacturer's engineering documentation and instructions. The electrical sub-contractor shall supply tools, wire, wire markers, and all miscellaneous hardware for complete installation.
2. Centrifuge manufacturer shall furnish a qualified technician for the installation of new components. All work to be performed per centrifuge manufacturer's engineering documentation and instructions. The centrifuge technician shall supply all tools and miscellaneous hardware for complete installation.

1.04.2 SUBMITTALS

A. Shop drawings, catalog cut sheets, and other materials required to completely describe and specify system, and equipment shall be submitted to the customer for review. These shall include:

1. Control panel layout and dimensional drawings
2. Approved electrical schematics
3. Revised BOM
4. Written Control System Description
5. Written Sequence of Operation
6. Centrifuge installation drawings

B. At the completion of the project the manufacture shall supply the following "As-Built" documents and electronic files:

1. Control panel layout and schematic drawings
2. BOM
3. Control System Description
4. Sequence of Operation
5. PLC Program code, annotated
6. OIT Application Program
7. Component Operation and Maintenance Information



1.05.2 DELIVERY, STORAGE, AND HANDLING

- A. Components will be shipped to customer site, and customer shall off load, and store in clean dry environment until commencement of work at which time parts delivered shall be turned over to Contractors Personnel on site.
- B. Spare Parts: N/A

1.06.2 WARRANTY

- A. Warranty of supplied components shall be a minimum of one year from delivery to customer site.
- B. An option for extended warranty shall be provided as an option to the proposal pricing.

PART 2.00.2 PRODUCTS

A.02.2 GENERAL

- A. The equipment specified herein addresses modification for one (1) Alfa Laval PM-38000 Centrifuge to be performed by a centrifuge manufacture meeting all the detailed requirements of these specifications, without exception.
- B. Like items of equipment shall be the product of one manufacture to achieve standardization of operation, spare parts, maintenance, and manufacturer's service.

2.03.2 CONTROL SYSTEM REQUIREMENTS

The centrifuge control panel shall be a NEMA 4 freestanding enclosure. The panel shall include a flange mount main disconnect that can be locked in the off position. Main Drive Power Components shall consist of an Allen Bradley Powerflex 753 VFD for bowl drive motor and shall be rated at 40HP, and an Allen Bradley Powerflex 753 VFD rated for 7.5HP for the scroll drive motor, and an Allen Bradley Powerflex 753 VFD for the feed pump. The panel shall operate from a 480V AC, 3 phase, 60 Hz service and shall also include a control power transformer for auxiliary components. Main control components shall consist of: Square D 100A main circuit breaker, Allen Bradley programmable logic controller, control relays, and terminal points for interconnection with ancillary equipment.



Door mounted components shall consist of mushroom head maintained emergency stop, and NEMA 4X Allen Bradley 10" color touch screen operator interface terminal (OIT). OIT control functions on front of control panel shall, as a minimum, include:

1. Start/Stop, on/off controls

*System Control Power

Auto Sequence

Clean in place Sequence

Centrifuge Drives

Wash water Solenoid Valve

Alarm Control

* System Control Power and Emergency Stop will be hardwired pushbuttons.

2. OIT status indication for:

System Control Power "On"

Auto Start "Starting in Auto"

Auto Stop "Stopping in Auto"

CIP (Clean in Place) "Running in CIP"

Centrifuge "Running"

Wash water Solenoid "Open"

Ready for Feed "Ready"

Alarms

Emergency Stop "Fault"

Bowl Motor Overload "Fault"

Bowl Drive Motor Temperature "Fault"

Back Drive VFD "Fault"

Back Drive Motor Temperature "Fault"

Back Drive High Torque "Fault"

Back Drive High-High Torque "Fault"

High Vibration "Fault"

High-High Vibration "Fault"

Low Relative Speed "Fault"

3. OIT Digital Speed, Flow Indication of:

Bowl Speed "RPM"

Back Drive Speed "RPM"

Back Drive Torque "Percent"

Differential Speed "RPM"

Vibration "In/Sec" Feed Rate "Percent"



4. OIT Speed Control for:

Back Drive Differential Speed (PI Manual)
Back Drive Pinion Speed (PI Manual)
Back Drive Torque (PI Auto)

2.04.2 BACKDRIVE SYSTEM REQUIREMENTS

- A. The new decanter centrifuge shall include a planetary gearbox back-drive system.
- B. The back-drive motor shall be 10 HP, 460VAC, 3Ph, inverter rated, severe duty, high efficiency. The motor shall be supplied by the centrifuge manufacture and the motor manufacture used shall have supplied motors for this type of centrifuge application.

2.05.2 FUNCTIONAL REQUIREMENTS

The new centrifuge drive, control, and monitoring system shall provide the following functional capabilities:

- A. Back-drive VFD controlled system capable of variable speed for setting differential speed of scroll conveyor.
- B. The centrifuge shall be capable of operating in three different control modes, Differential Speed Control (Manual), Pinion Speed Control (Manual) or Torque Control (Auto).

Differential speed control mode shall allow operator to set the conveyor speed and maintain the set point. Pinion speed control mode shall allow operator to set the pinion speed and maintain the set point. Torque control mode shall allow operator to set % torque to maintain and the control system shall automatically adjust differential speed to maintain the set point.

- C. Operator controls, monitoring, and alarms shall incorporate existing system controls along with additional operator controls as deemed necessary for the proper operation of the complete dewatering system. Additionally, automatic controls shall be provided for pausing, flushing and resuming feed and polymer based on warning alarm indications.
- D. A written centrifuge control system description and sequence of operation shall be provided by the manufacturer for review and approval by the customer before modification of the centrifuge system.



PART 3.00.2 EXECUTION

3.01.2 EXECUTION

The new centrifuge installation shall not be considered complete and satisfactory until functional testing and training on new control system is complete.

A. Electrical sub-contractor shall perform all on site work per the manufacture engineering design drawings and instructions.

B. Electrical sub-contractor shall provide manpower during functional testing phase to assist with any troubleshooting of wiring and installation.

3.02.2 PREPARATION (N/A)

3.03.2 ON SITE INSTALLATION APPLICATION

A. Manufacturer's Representation for Installation, Start-Up, Testing, Training

1. The Centrifuge manufacturer's technical representative for the equipment specified herein shall be present at the jobsite for five (5) workdays for the services listed below.

The following services shall be provided with allocation of workdays as established by the owner with the following distribution as a guide:

2. Two (2) workdays for onsite coordination with Electrical sub-contractor.

3. Three (3) workdays per centrifuge for functional testing, start-up and training

B. Workdays shall be eight (8) hour days, Monday through Friday.

3.04.2 FIELD TESTS

A. FUNCTIONAL TEST

Functional testing shall be performed for each centrifuge control system installed. Prior to system start-up, system components shall be inspected for proper alignment, proper connection, and satisfactory operation. The centrifuge manufacturer's representative shall inspect installation of new components, check for minor adjustments, provide certification that the control system components have been installed correctly and are ready for operation.