

**Veolia Water Milwaukee LLC**  
South Shore Water Reclamation Facility  
RAS Pumps #1-1 West, #1-4 West and #2-1 East Repairs

Public Bid No. 59297

Wednesday, June 29, 2022, 11:00 a.m.

Pre-bid Agenda

Welcome to the pre-bid meeting for the RAS Pumps #1-1 West, #1-4 West and #2-1 East Repairs at the South Shore Water Reclamation Facility. This bid is due electronically via Quest Construction Data Network (CDN) **no later than 2:00 p.m., local time, Wednesday, July 13, 2022.** The bid results may be viewed electronically no later than 2:30 pm on Quest CDN. The bid results may also be viewed at [www.veolianoorthamerica.com/milwaukee/](http://www.veolianoorthamerica.com/milwaukee/) websites.

Veolia Water reserves its rights to reject any and all Bids not conforming to the intent of the INVITATION FOR BIDS. Veolia Water also reserves its rights to postpone the award of the Contract for a period of time not exceeding 45 days from the bid opening date. At the time of postponement, the Bids shall remain firm and may not be withdrawn during this forty-five (45) day period.

In accordance with Wisconsin Statutes, the bidders will submit a list of proposed subcontractors with their Bid.

It is the policy of Veolia Water that the Minority, Women and Small Business Enterprises will have the maximum opportunity to participate and perform in this contract.

In the award of subcontracts, the Contractor agrees to use good faith efforts to carry out this policy and to achieve purchasing participation and contract performance with these businesses.

The SWMBE Good Faith Effort Summary, (8700-294A) is one of the documents required and must be completed and uploaded electronically on QuestCDN website to be deemed as a responsible bid. **SWMBE Good Faith Effort documentation applied to “all” prime contractors including SWMBE prime contractors (See 19.MMSD Policies).** It is extremely important to read and follow the section for the Determination of Good Faith Efforts.

**NOTE: Veolia Water/MMSD participation goals for SWMBE are:**

**Small Business – 5%**

**Women-owned Business – 2%**

**Minority-owned Business – 13%**

The SWMBE goal is twenty (20) percent. One SWMBE may provide full participation.

**It is your responsibility to meet these requirements or provide justifications as to why these requirements cannot be fulfilled. These requirements must accompany your bid package in order for it to be deemed as a responsible bid.**

**The following forms are required and must be electronically uploaded in Quest CDN by the time set forth on the Quest CDN website.**

- a. Bid Form Signature Form
- b. SWMBE Good Faith Efforts Summary, WDNR Form 8700-294A
- c. Equal Employment Opportunity Data Form
- d. Certification of Non-Discrimination

The following documents are available for review and download from the District's website at <https://www.mmsd.com/procurement/constructions-bid-special-attachments>.

- 1 SWMBE Policies for Construction and Professional Services Contracts, Administrative Policy 2-78.01.
- 2 Local Workforce Participation on District Construction Projects, Administrative Policy 2-78.21.

LUMP SUM pricing and breakdown by Labor, Material, Equipment, Consumables, Freight and Disposal are required for this bid. The total amount to be paid to the Contractor will be based on the lump sum bid price, and will be adjusted according to any changes in the work (plus or minus) approved by Veolia Water.

The Contractor cannot make any changes to the Bid Forms. Unless the Bid clearly indicates otherwise, the **amount stated in words shall govern** where words do not agree with the amount stated in figures, and in case of a discrepancy between prices and totals, unit prices will prevail.

The award will be announced within forty five (45) days or sooner after the opening of the bids, unless otherwise indicated in the INVITATION TO BID. The award of the Contract will be given to the lowest, responsible Bidder complying with the INVITATION TO BID, as determined by the criteria and procedures in this Bid.

The time for completion of the Contract shall be two hundred forty (240) days from the date of Notice to Proceed.

**INVOICING;**

Once the work is completed, the Contractor shall invoice VWM within 30 days.

**When or if requesting Progress Payments:**

The Contractor shall provide a detailed breakdown of material that will be onsite for this project, project activities and associated costs to VWM to be used as a basis for Progress Payments. Onsite material must be secured by the Contractor. VWM shall not be liable or responsible for missing materials at any site location.

**LOCAL WORKFORCE PARTICIPATION REQUIREMENTS:** In accordance with the District's procurement policy, it promotes the utilization of local workers and maximization of the economic impact of annual operating and capital project spending. The Bidder must comply with this policy by signing the attached CERTIFICATION OF LOCAL WORKFORCE PARTICIPATION form found on the Quest CDN website. This policy shall be implemented by VWM.

The Contractor shall submit certified payroll records with the final invoice for payment. Once the certified payroll records are verified and approved as compliant with CERTIFICATION OF LOCAL WORKFORCE PARTICIPATION form, the invoice shall be processed for payment.

The project requires 45% of total project hours in Sanitary Sewer Service Employment and 20% of Target Area Local Workforce.

In the event the Bidder is awarded the Contract and fails to comply with the Local Workforce Participation requirements, liquidated damages may be retained by VWM based on the following formula:

The number of Targeted or SSSA Employment Hours that should have been achieved based on the number of total project hours	MINUS	The number of Target Area or SSSA Employment Hours that have been achieved	MULTIPLIED BY	Two-thirds of the average mid-wage for the specified trades
---	-------	--	---------------	---

The Contractor is required to submit a local workforce implementation plan prior to the VWM issued to Notice to Proceed. This written local workforce implementation plan that will show the strategy for achieving the local workforce participation requirements of this Agreement. This plan will also indicate the projected project hours including the coordinated plan to meet local workforce participation requirements.

These Local Workforce Participation requirements are a term of this Agreement and noncompliance shall be considered a breach of this Agreement.

**ADJUSTMENTS OF PARTICIPATION LEVELS PRIOR TO BID OPENING**

Reasonable adjustments from, and modifications to, all requirements of this policy may be made with respect to any specific project prior to the bid opening upon grounds of undue hardship applicable to all potential bidders or when special circumstances in the local public interest or local or area-wide employment situation so require.

Requests for adjustments to the policy must be submitted in writing to VWM no later than (3) three days after the Pre-bid Meeting. For the adjustments to be considered, VWM must get approval from its client (MMSD). This request must be on your letterhead in writing and include justification for the requested adjustment. If, upon review, the evidence indicates a need to adjust the local workforce requirements, an addendum will be issued prior to the bid opening.

## **LIQUIDATED DAMAGES**

The amount of liquidated damages shall be \$75.00 per day. Liquidated damages shall be assessed if the Contractor fails to complete this project within 240 calendar days from the date VWM issues the Notice to Proceed to commence work.

## **ADDENDUM**

If necessary, an addendum will be sent out after the pre-bid meeting.

## **QUESTIONS**

Please ask questions. All questions will be shared with the group through meeting minutes which will be displayed on the QuestCDN website.

## **WALK THROUGH**

Hard Hats and Safety Glasses are required and available for those Contractors that need them. The Contractor is responsible for any additional PPE for this walk through.

## **SAFETY**

All Contractor and subcontractor employees shall obtain safety training from Veolia Water prior to working on the designated site. Veolia Water will offer a total of two one-hour training sessions to the contractor and any subcontractors involved in the project. The Contractor shall adhere to all Veolia Water safety policy and procedures.

Once the bid has been awarded, the Contractor must provide the safety information found in Schedule D – Contractor Safety Requirements to the PROJECT MANAGER prior to the Notice to Proceed.

## **SCOPE OF WORK**

The Contractor Scope of Work shall be as follows:

### **A. SCOPE OF WORK**

#### **BACKGROUND**

Each of the three existing pumps is a heavy duty vertical direct coupled, pedestal mounted, dry pit, single suction centrifugal pump. Each pump has a non-clog impeller that can pass solids up to seven inches in diameter. The pump intakes are connected to the 36-inch suction header. The discharges are connected to the Return Activated Sludge (RAS) discharge header. The impeller area is sealed by a cartridge type double split mechanical seal around the shaft. Each existing pump is an Allis Chalmers, Model No. 300 Type 20 x 18 x 23 – NSYV Frame F8-G; Serial No. 851-39374-01-3. The rotation of the existing impellers is clockwise for the “West” pumps in Building 316 and counterclockwise for the “East” pumps in Building 317. Each motor is a GE motor AF400 VFD, 150HP, 3 phase, 60 Hz, 460V, 192 Amps, 705 RPM, Nema B with a 1.15 service factor.

#### **A.1 SCOPE OF WORK**

The following specification describes the Contractor performing the replacement of the rotating elements specified herein for RAS Pumps #1-1 West (originally named P-5-9-1-1) and #1-4 West (originally named P-5-9-1-4) located in the (West) Aeration Building 316, and for RAS Pump #2-1 East (originally named P-5-9-2-1) located in the (East) Aeration Building 317, at the South Shore Waste Water Reclamation Facility.

#### **RAS Pumps Original Manufacturer**

Allis Chalmers

All dimensions/configurations shall be verified by the Contractor.

### **B.1 MATERIALS – RAS PUMP 1-1 WEST**

The Contractor shall provide all the labor, materials, and equipment for the RAS Pump # 1-1 West repairs identified in these specifications, except where identified as being furnished by others. Where materials are not specifically identified, they shall be new and of first class, appropriate for the installation. The Contractor shall be responsible for field verifying the dimensions for all parts listed below. The Contractor provided replacement parts for the pump and motor shall be Abba Pump Parts & Service as represented in Wisconsin by Crane Engineering, or equal. The supplier shall submit evidence of past successful projects providing replacement parts for similar Allis Chalmers pumps.

At a minimum, the Contractor shall furnish the following parts for replacement:

- Shaft Coupling – Reference Drawing Catalog No. 0-031-0
- Gasket (Suction Elbow Cover) – Reference Drawing Catalog No. 1-405-0
- Gasket (Suction Elbow) – Reference Drawing Catalog No. 1-521-0
- Wear Plate (Suction Cover) – Reference Drawing Catalog No. 2-046-1
- Gasket (Suction Cover) – Reference Drawing Catalog No. 2-123-5
- Gasket (Stuffing Box Cover) – Reference Drawing Catalog No. 2-123-6
- Gasket (Casing Hand hole Cover) – Reference Drawing Catalog No. 2-405-0
- Enclosed Impeller (clockwise rotation) – Reference Drawing Catalog No. 4-002-0
- Wear Ring (Impeller) Reference Drawing Catalog No. 4-004-5
- Deflector (Inboard) – Reference Drawing Catalog No. 5-024-3
- Deflector (Outboard) – Reference Drawing Catalog No. 5-024-4
- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4
- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4A
- Roller Bearing (Inboard) – Reference Drawing Catalog No. 5-038-3
- Grease Seal (Inboard) – Reference Drawing Catalog No. 5-177-3
- Grease Seal (Outboard) – Reference Drawing Catalog No. 5-177-4
- Chesterton Split Mechanical Seal - 442HP-40 SA RSC S FKM

Pump drawings and data sheets are attached for reference. The Contractor shall be responsible for all furnished materials and their compliance with the specifications listed herein.

### **B.2 MATERIALS – RAS PUMP 1-4 WEST**

The Contractor shall provide all the labor, materials, and equipment for the RAS Pump #1-4 West repairs identified in these specifications, except where identified as being furnished by others. Where materials are not specifically identified, they shall be new and of first class, appropriate for the installation. The Contractor shall be responsible for field verifying the dimensions for all parts listed below. The Contractor provided replacement parts for the pump and motor shall be Abba Pump Parts & Service as represented in Wisconsin by Crane Engineering, or equal. The supplier shall submit evidence of past successful projects providing replacement parts for similar Allis Chalmers pumps.

At a minimum, the Contractor shall furnish the following parts for replacement:

- Shaft Coupling – Reference Drawing Catalog No. 0-031-0
- Gasket (Suction Elbow Cover) – Reference Drawing Catalog No. 1-405-0

- Gasket (Suction Elbow) – Reference Drawing Catalog No. 1-521-0
- Wear Plate (Suction Cover) – Reference Drawing Catalog No. 2-046-1
- Suction Cover – Reference Drawing Catalog 2-091-0. Also provide a 1-1/2” Type 316 stainless steel ball flush valve similar to those installed on other RAS pumps, and a 1-1/2” Type 316 stainless steel quick disconnect.
- Gasket (Suction Cover) – Reference Drawing Catalog No. 2-123-5
- Gasket (Stuffing Box Cover) – Reference Drawing Catalog No. 2-123-6
- Gasket (Casing Hand hole Cover) – Reference Drawing Catalog No. 2-405-0
- Enclosed Impeller (clockwise rotation) – Reference Drawing Catalog No. 4-002-0
- Wear Ring (Impeller) Reference Drawing Catalog No. 4-004-5
- Deflector (Inboard) – Reference Drawing Catalog No. 5-024-3
- Deflector (Outboard) – Reference Drawing Catalog No. 5-024-4
- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4
- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4A
- Roller Bearing (Inboard) – Reference Drawing Catalog No. 5-038-3
- Grease Seal (Inboard) – Reference Drawing Catalog No. 5-177-3
- Grease Seal (Outboard) – Reference Drawing Catalog No. 5-177-4
- Chesterton Split Mechanical Seal - 442HP-40 SA RSC S FKM
- Replace the existing Falk pump-to-motor coupling with a new Elastomer coupling like the one that is already installed on RAS Pump #1-2 West. The coupling shall Be John Crane Company A Series, or approved equal.

Pump drawings and data sheets are attached for reference. Typical catalog information for the Crane Type A coupling is also attached for reference. The Contractor shall be responsible for all furnished materials and their compliance with the specifications listed herein.

### **B.3 MATERIALS – RAS PUMP 2-1 EAST**

The Contractor shall provide all the labor, materials, and equipment for the RAS Pump #2-1 East repairs identified in these specifications, except where identified as being furnished by others. Where materials are not specifically identified, they shall be new and of first class, appropriate for the installation. The Contractor shall be responsible for field verifying the dimensions for all parts listed below. The Contractor provided replacement parts for the pump and motor shall be Abba Pump Parts & Service as represented in Wisconsin by Crane Engineering, or equal. The supplier shall submit evidence of past successful projects providing replacement parts for similar Allis Chalmers pumps.

At a minimum, the Contractor shall furnish the following parts for replacement:

- Shaft Coupling – Reference Drawing Catalog No. 0-031-0
- Gasket (Suction Elbow Cover) – Reference Drawing Catalog No. 1-405-0
- Gasket (Suction Elbow) – Reference Drawing Catalog No. 1-521-0
- Wear Plate (Suction Cover) – Reference Drawing Catalog No. 2-046-1
- Gasket (Suction Cover) – Reference Drawing Catalog No. 2-123-5
- Gasket (Stuffing Box Cover) – Reference Drawing Catalog No. 2-123-6
- Gasket (Casing Hand hole Cover) – Reference Drawing Catalog No. 2-405-0
- Enclosed Impeller (counter clockwise rotation) – Reference Drawing Catalog No. 4-002-0
- Wear Ring (Impeller) Reference Drawing Catalog No. 4-004-5
- Deflector (Inboard) – Reference Drawing Catalog No. 5-024-3
- Deflector (Outboard) – Reference Drawing Catalog No. 5-024-4

- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4
- Ball Bearing (Outboard) – Reference Drawing Catalog No. 5-026-4A
- Roller Bearing (Inboard) – Reference Drawing Catalog No. 5-038-3
- Grease Seal (Inboard) – Reference Drawing Catalog No. 5-177-3
- Grease Seal (Outboard) – Reference Drawing Catalog No. 5-177-4
- Chesterton Split Mechanical Seal - 442HP-40 SA RSC S FKM
- Replace the existing Falk pump-to-motor coupling with a new Elastomer coupling like the one that is already installed on RAS Pump #1-2 West. The coupling shall Be John Crane Company A Series, or approved equal.

Pump drawings and data sheets are attached for reference. Typical catalog information for the Crane Type A coupling is also attached for reference. The Contractor shall be responsible for all furnished materials and their compliance with the specifications listed herein.

### **C. WORKMANSHIP**

The Contractor shall complete the project in a workmanlike manner and use craftsmen skilled in their trade. The Contractor shall be responsible for the temporary relocation of piping and equipment. Any piping or equipment that is relocated shall be returned to its original state at the completion of the project. The Contractor shall observe and follow all manufacturers' disassembly, assembly and start-up instructions. Where those instructions conflict with these specifications, the more stringent shall be followed.

The Contractor shall be responsible for providing a certified overhead crane operator. The Contractor shall perform pre and post construction crane inspections by a certified 3<sup>rd</sup> party to the overhead cranes in Building. 316 and 317; 3.5T Electric #1 – West and 3.5T Electric #1 - East. The Contractor shall be responsible for providing all necessary rigging and equipment necessary to remove and re-install the motor and pump assembly as required. The Contractor shall be responsible for removing all necessary floor grating to allow for the removal of the motor and pump components. The Contractor shall be responsible for providing fall protection around open areas.

#### **The Contractor shall complete the following:**

- VWM will isolate, drain, and flush RAS Pump #1-1 West.
- Work with Veolia to Lock Out and Tag Out (LOTO) RAS Pump #1-2 West.
- Unwire motor and disconnect all electrical wiring. All electrical wiring and controls shall be re-used.
- Remove the motor from the pedestal using the lifting devices on the motor.
- Remove all necessary components, piping, etc. required to complete the pump parts replacement listed herein.
- Properly dispose of all removed components that will not be re-used.
- Furnish and install all replacement parts listed herein. If any parts not listed for replacement are found to be defective or non-reusable, notify the VWM Engineer on how to proceed.
- The Contractor shall align the pump, coupling and drive shaft to the manufacturers recommended specifications.
- The Contractor shall refill all lubricants to recommended levels with recommended lubricants from the Manufacturer.
- Re-Install the motor.

- Re-wire motor, re-connect electrical wiring/controls. Properly re-connect all other removed components, piping, etc.
- Work with Veolia to remove the LOTO of RAS Pump #1-1 West.
- Check for proper rotation of the motor.
- Test RAS Pump #1-1 West as specified below, and pass the 7-day performance test.
- VWM will isolate, drain, and flush RAS Pump #1-4 West.
- Work with Veolia to Lock Out and Tag Out (LOTO) RAS Pump #1-4 West.
- Unwire motor and disconnect all electrical wiring. All electrical wiring and controls shall be re-used.
- Remove the motor from the pedestal using the lifting devices on the motor.
- Remove all necessary components, piping, etc. required to complete the pump parts replacement listed herein.
- Properly dispose of all removed components that will not be re-used.
- Furnish and install all replacement parts listed herein. If any parts not listed for replacement are found to be defective or non-reusable, notify the VWM Engineer on how to proceed.
- The Contractor shall align the pump, coupling and drive shaft to the manufacturers recommended specifications.
- The Contractor shall refill all lubricants to recommended levels with recommended lubricants from the Manufacturer.
- Re-Install the motor.
- Re-wire motor, re-connect electrical wiring/controls. Properly re-connect all other removed components, piping, etc.
- Work with Veolia to remove the LOTO of RAS Pump #1-4 West.
- Check for proper rotation of the motor.
- Test RAS Pump #1-4 West as specified below, and pass the 7-day performance test.
- VWM will isolate, drain, and flush RAS Pump #2-1 East.
- Work with Veolia to Lock Out and Tag Out (LOTO) RAS Pump #2-1 East.
- Unwire motor and disconnect all electrical wiring. All electrical wiring and controls shall be re-used.
- Remove the motor from the pedestal using the lifting devices on the motor.
- Remove all necessary components, piping, etc. required to complete the pump parts replacement listed herein.
- Properly dispose of all removed components that will not be re-used.
- Furnish and install all replacement parts listed herein. If any parts not listed for replacement are found to be defective or non-reusable, notify the VWM Engineer on how to proceed.
- The Contractor shall align the pump, coupling and drive shaft to the manufacturers recommended specifications.
- The Contractor shall refill all lubricants to recommended levels with recommended lubricants from the Manufacturer.
- Re-Install the motor.
- Re-wire motor, re-connect electrical wiring/controls. Properly re-connect all other removed components, piping, etc.
- Work with Veolia to remove the LOTO of RAS Pump #2-1 East.
- Check for proper rotation of the motor.
- Test RAS Pump #2-1 East as specified below, and pass the 7-day performance test.



## **Warranty**

The Contractor shall provide a 1 year warranty for labor and equipment commencing on the date of completion of a successful 7 day test run, for each pump.

## **Testing**

### Functional Test

Prior to each pump startup, all equipment shall be inspected for proper alignment, quiet operation, proper connection, proper rotation and satisfactory performance.

### System Functional Testing

After each pump installation, the Contractor shall provide a 7 day test run as proof of reliability.

## **D. ATTACHED REFERENCE MATERIAL**

- Equipment Data Sheets for all South Shore RAS Pumps.
- RAS Pumps Parts Drawings.
- John Crane A Series Elastomer Couplings Brochure.

## **E. SCHEDULE**

- All work must be scheduled with MMSD and Veolia.
- Beginning with the issuance of a Notice to Proceed, the entire project shall be completed within a time frame of two hundred and forty (240) calendar days.

## **F. SUBMITTALS**

All submittals to the VWM Engineer shall be emailed to Larry Koch at [lawrence.koch@veolia.com](mailto:lawrence.koch@veolia.com). Required submittals include:

1. Statement of Warranty (1 year from date of successful completion of 7-day test).
2. Literature and drawings describing the equipment, including parts list and materials of construction, in sufficient detail to indicate full conformance with the detail specifications.
3. Baseline vibration analysis for the pump & motor after the installation.
4. Alignment readings of the pump & motor.
5. Pre & post construction crane inspection reports.
6. *Pump curve prior to 7-day test to confirm proper flow (GPM) against certain head (TDH), pump efficiency (%) and brake horsepower (BHP).*

***Note: During the execution of this project, the Contractor is allowed the use of building equipment (i.e. elevators, overhead cranes, jib hoists, etc.); however, in the event that any or all of the equipment is out of service, no compensation shall be owed to the Contractor for providing alternate equipment or any delays this may cause.***