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**Addendum #1 dated April 25, 2018
Contra Costa Water District
Request for Proposal #1910
Pump Maintenance**

The District draws your attention to the following changes to Request for Proposal #1910, the original proposal document has been modified in the following ways.

Request for Proposal #1910 for Pump Maintenance dated April 10, 2018 is hereby changed to add the below information the original scope of work.

**PUMP MAINTENANCE SERVICES
SCOPE OF WORK**

Miscellaneous Items:

- All work must have an approved estimate signed by a District Representative (DR) prior to starting any repair work
- Any proposed modifications to work specifications must be pre-approved in writing
- Pump repair company will be responsible for pump from the time the pump is placed on transport truck until delivery and acceptance by the District
- Warranty on-site response time will be no more than one business day
- The District reserves the right to obtain competitive bids on all pump purchases
- Paint color/finish to match existing color/finish
- Vendor must be able to do two plane dynamical balancing
- Vendor must document tear down inspection
- Must perform final inspection and provide report

The following Items 1-4 will be used to formulate pricing for individual motors listed on Rates and Charges Pricing Sheet Attachment C.

1. Transportation and Preliminary Inspection

- A. Prior to pulling pump a pre-repair vibration test must be performed. Any test not performed must be acknowledged by the District in writing
- B. Contractor will transport the pump to and from the pumping plant or stations. (CCWD employees will remove and reinstall pump. Pump will be placed inside the front door of the pumping plants.)
- C. Contractor will notify the District's Representative (DR) of any major visual deficiencies.

2. Disassembly, Cleaning and Inspection

- A. Disassemble pump completely for DR inspection.
- B. Sandblast columns, discharge head, bowls and enclosing tubes (white metal).
- C. Bead blast (sugar sand) impeller and stuffing box.
- D. After cleaning, check all parts for cracks and general wear.
- E. Clean, de-burr and reuse old split rings for both the impeller and the coupling (if not reusable, purchase a new one with DR's approval)

3. Measurements and Machine Work

- A. Registers: If clearances are within 0.002" to 0.004" – no skin cut necessary. If clearance exceeds 0.004" – weld and skin cut registers for required clearance. Provide unit quote per register repair
- B. Shaft: Confirm all required fits such as bearing sleeves, etc. Check for run out – total indicator run out is not to exceed 0.005".
- C. Impeller: check for manufacturer's dimensions. Check bore – not to exceed 0.002" slip-fit.
- D. Shaft Sleeves: check sleeves for proper ID and OD (if ID exceeds 0.001" tight to shaft).
- E. Coupling: Bore not to exceed 0.005" to 0.001" interference fit to shaft. Repair fit if required.
- F. Stuffing Box: Check if all dimensions are accurate (± 0.005).
- G. Check clearance of all bearings tail bowl / spider / bowl. Manufacture new bearings if necessary. Provide unit quote per bushing replacement, assume 660 bronze bushing
- H. Check mechanical seal. Rebuild if possible or replace (oil rings must be viton).
- I. Prepare itemized list of additional repairs and parts required and obtain DR approval before continuing with repairs.

4. Balancing and Reassembly

- A. Two plane dynamic balance impeller at motor speed to under 0.005". Use special balance mandrel with threads, keyway and shoulder. (Manufacture mandrel if not available).
- B. Reinstall bearings into bowls and columns, set screw into place for anti-rotation. Check for proper clearance over respective shafts before and after installation.
- C. Replace lip seals in tail bowl bearings, install with lip facing upwards to allow grease out but not let water in.
- D. Replace all oil enclosing tube o-rings (must be viton).
- E. Paint all surfaces with District designated coating per manufacturer's specifications from flow water level up.

- F. Paint all surfaces of pump inside and out with National Sanitary Foundation (NSF) approved coating to 0.016" minimum thickness. The District shall approve all coatings before applied to pump surfaces.
- G. Assemble pump to meet all clearances – per factory specifications.
- H. Touch up paint after assembly.
- I. Deliver pump to pumping site. **Inspection report for each repair activity**

Inspection report to be submitted in a hard copy from and in a CD-Rom. The document must be in a Microsoft Word document or in a PDF format. No hand written documents or drawings. All invoices and associated items to be scanned and included in the CD-Rom.

Report will utilize the following format and include the following information:

Cover Page

Job start date

Job end date

Equipment name and number

Equipment manufacture and serial number :

As found inspection report

As found testing report

As found photographs

Repair work scope

Manufacture drawings

Balance report

Material certifications

Coating specifications

Final inspection

Final photographs

Copy of final invoice

As found inspection report:

Write up explaining as found items

Drawing showing as found dimensions and specifications

As found photographs:

Photographs showing items of interest

Photographs showing items that need repair or replacement

Work scope:

Detailed list of pre-inspection items done

Detailed list of items manufactured

Detailed list of items repaired and how repairs were completed

Detailed list of items done to prepare for shipping

Manufacture drawings:

Drawings of all parts manufactured

Balance report:

All balance reports

All balance data

List of items done to balance unit

Material certifications:

Include all material specifications for all parts purchased

Include all material specifications for all parts produced

Coating specifications:

Include MSDS for all coatings

Include all data sheets for coatings used

Final inspection:

Write up explaining how found items were repaired

Write up showing all items replaced / manufactured for replacement

Drawing showing final dimensions and specifications

List of final torque specs and values

Final testing report

Failure analysis

Final photographs:

Photographs of all items manufactured

Photographs of all items repaired:

Photographs of sub and final assemblies

Copy of final invoice:

Final invoice showing by line item, estimated time to repair, final time to repair and cost for each line item

Original invoices for all parts and materials

5. Additional Repairs

Additional repairs will be pre-approved by a District representative and paid at the hourly rate specified in the Contract.

This document is available online at www.ccwater.com, and is hereby made an official part of Request for Proposal #1910.

I acknowledge receipt of the foregoing Addendum #1.

Date: _____ Signature: _____

Thank you in advance for your cooperation.



Brian K. Jackson
Purchasing Officer
Contra Costa Water District