



<b>Project:</b>	BNR Project	<b>Project No:</b>	151600
<b>Engineer:</b>	Brown and Caldwell	<b>Location:</b>	Central Valley
<b>Description:</b>	Pre-bid Conference	<b>Date &amp; Time:</b>	Tuesday February 25, 2020, 2 PM

## **INTRODUCTION**

### **A. Owner Representatives:**

- i. General Manager: Phil Heck
- ii. Assistant General Manager: Brandon Heidelberger
- iii. Field Engineer/Inspector: Kevin Gallagher
- iv. Project Manager: Neil Kunz
- v. Construction Manager: Brown & Caldwell / Mark Hansen

### **B. Communication:**

- i. Send Questions to Project Engineer, Neil Kunz (nkunz@brwncald.com).

## **BRIEF DESCRIPTION OF THE WORK**

- A. Acceptance of KSB Primary effluent Pump Station Pumping Equipment Procurement Contract for PEPS Pumps Goods and Services.
  - i. Coordination with KSB for work related to the installation and commissioning of PEPS pumps.
- B. Pre-negotiated price for Invent Mixers.
  - i. Coordination with Invent for work related to the installation and commissioning of Invent Mixers.
- C. Acceptance of Aeration Control Valve Procurement Contract with Binder Engineering.
  - i. Coordination with Binder for work related to the installation and commissioning of Aeration Control Valves.
- D. Demolition of Existing West Side Trickling filters 1, 2, 3 and trickling filter pump station. Demolition is required to be completed in stages.
- E. Construct a new concrete Aeration Basin with four individual trains and internal mixed liquor recycle, fine bubble aeration diffusers, and mixers. Construction to include subsurface excavation, improved subgrade, footings, walls, and appurtenant features.
- F. Construct a new concrete Anaerobic Basin with four individual trains and internal mixed liquor recycle, fine bubble aeration diffusers, and mixers. Construction to include subsurface excavation, improved subgrade, footings, walls, and appurtenant features.
- G. Replace existing Secondary Clarifier RAS pumps 1 through 8 with new Secondary Clarifier RAS pumps. All RAS pumps will be supplied by Owner.
- H. Construct new RAS classifying selector with WAS wasting pumps and RAS denitrification basin with new RAS Electrical room.
- I. Construct new aeration header piping and supports from cogen building to Aeration Basin 2 ( former Solids Contact tanks) and Aeration Basin 1.
- J. Construct new BNR Electrical Load Center Building.
- K. Install electrical and controls wiring for new BNR basins, building and equipment.
- L. Install new electrical duct banks for BNR basins, buildings, and equipment.



# Pre-Bid Meeting Notes

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- M. Construct new Primary Effluent Pump Station (PEPS). Contract with KSB for PEPS pumps will be assigned to Contractor
- N. Modify existing Solids Contact Tanks (SCTs) and install new isolation gates. Remove diffusers and replace with new diffusers. Modification require draining of a maximum of 2 SCT trains at a time. Modifications will require cleaning and removing the snails from each basin.
- O. Construct new Primary Effluent piping (east and west connectors) and connection to existing primary effluent channel. Construction of piping shall be completed after start up of BNR Basins.
- P. Site civil work including duct banks, miscellaneous utility extensions, concrete pads for Transformers, and concrete pads for backup generators.
- Q. Restore site
- R. Coordinate Work with Owner’s operations
- S. Coordinate Work with other Contractors, projects listed below, at the site and with the Construction Manager including requirements for site safety.
  - i. Construction Contract 30A Blower Building
  - ii. Construction Contract 10C Headworks Improvements
  - iii. Construction Contact 5F 3 Water Improvements
  - iv. Construction Contract 5E Secondary clarifier upgrades and additions
  - v. Influent Odor Control
  - vi. CVWRF Cogeneration Engine Replacement Project
- T. Contractor Parking to be South of Primary Clarifiers.
- U. Central Valley will have a Security gate and all contractor employees will be required to have a security badge.
- V. Space will be made available for a Contractor trailer next to Egg Digesters and BC office trailer.

## **INSTRUCTION TO BIDDERS**

- A. **Contract Time:** As per Agreement Section 00 52 00-2 of the Project Manual – The work shall be Substantially Complete within **1,189** calendar days after the Notice to Proceed.
  - i. Anticipated Notice to Proceed – 6/08/2020.
  - ii. Anticipated Substantial Completion – 9/10/2023.
- B. **Liquidated Damages:** As per Agreement Section 00 52 00-2 of the Project Manual, the following Liquidated Damages shall apply:



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- i. **Late Completion: \$500.00** for each day or part thereof that expires after the Contract Time until the Work is Substantially Complete.
  - ii. **Interruption of Services:** No interruption of services shall be caused by Contractor, its agents, or employees without the Owner’s prior written approval.
- C. **Regular Working Hours:** 6:00 a.m. to 6:00 p.m., five days per week, Monday through Friday. Other hours may be requested.
- D. **Utility Coordination:** Contractor is responsible to save and protect all utilities.
- E. **Testing & Certification Requirement:** Contractor is required to have their own quality control program, see Standard Specification Section 01 45 20 of the Project Manual.
  - i. Paid for by the Owner
  - ii. Coordinated by Contractor
- F. **Schedule of Values:** Provide Schedule of Values within 24 hours after award. See bid form.
- G. **Safety:** Contractor is responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the work and attendance of Central Valley safety orientation.
- H. **Instructions to Bidders:** Bids shall be received no later than **2 p.m. on Tuesday, April 14, 2020 at the offices of the Owner** per the Advertisement to Bid and shall be enclosed in a plainly marked package with the Project title, the name and address of Bidder, and shall be accompanied by the Bid security and other required documents. If a Bid is sent by mail or other delivery system, the sealed envelope containing the Bid shall be enclosed in a separate package plainly marked on the outside with the notation “**BID ENCLOSED.**” A mailed Bid shall be addressed to [Central Valley Water Reclamation Facility, Attention: Phil Heck, PhD, P.E., 800 West Central Valley Road, Salt Lake City Utah 84119].
- I. **Bid Opening:** Sealed Bids for the construction of the **BNR Basins Project** will be received, **from prequalified Bidders only**, by **Central Valley Water Reclamation Facility**, at the office of the **Central Valley Water Reclamation Facility, 800 W. Central Valley Road, Salt Lake City, UT 84119** until **2:00 p.m.** local time on **Tuesday, April 14, 2020**, at which time the Bids received will be **publicly** opened and read.
 

The Issuing Office for the Bidding Documents is: Brown and Caldwell, contact Neil Kunz, P.E. 6975 Union Park Center, Suite 490, Midvale, UT 84047, phone: 801-316-9827 email: nkunz@brwncald.com.

The Bid shall contain an acknowledgement of receipt of all Addenda. The addenda numbers must be filled in on the Bid Form.
- J. **Insurance:** When Owner issues a Notice of Award to the Successful Bidder, it shall be accompanied by the unexecuted counterparts of the Agreement along with the other Contract Documents as identified in the Agreement. Within 15 days thereafter, Successful Bidder shall execute and deliver the required number of counterparts of the Agreement (and any bonds, insurance documentation, and proof of a Utah General Contractor’s License) required to be delivered by the Contract Documents to the Owner.
- K. **Clean Water State Revolving Fund (SRF):** The SRF supplement includes forms, requirements and certifications required of Contractor during and after the bidding period including but not limited to solicitation of subcontracts through disadvantaged business enterprise (DBE), women’s business



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enterprise (WBE), and minority business enterprise. The SRF supplement also includes requirements for use of American Iron and Steel (AIS) on the project. Specification sections 00 20 00, Article 23, 00 85 00.

	MBE	WBE
Construction	4.0%	2.0%
Equipment	0.25%	0.25%
Services	0.50%	0.50%
Supplies	0.25%	0.25%



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**GENERAL DISCUSSION**

**A. Work Sequence –Section 01 12 16**

- i. Site preparation and potholing existing utilities.
- ii. Run temporary conduits, power wires, and control wires to existing equipment as necessary.
  - i. The Plan shall be coordinated with the Contractor’s construction schedule and meet the restrictions and conditions specified in the Contract Documents.
  - ii. The Plan shall describe the Contractor’s means and methods for performing the tasks listed above and the length of time required to complete said tasks.
  - iii. Notify the Construction Manager if any portion of the work cannot be completed as Specified. Develop alternate plan to achieve the subject portion of the work subject to approval of the Construction Manager and CVWRF.

**B. The Contractor shall observe the following restrictions:**

- i. The Contractor is responsible for ensuring that treatment processes and plant operations are not compromised by Contractor’s actions. The treatment plant is to remain operational during the execution of this contract.
- ii. Existing wastewater treatment facility will require four (4) Trickling Filters (1, 5, 6, and 7) and six (6) Solid Contact Tanks (SCTs 1 through 6) to remain operational during the demolition of Tricking Filters 2 and 3 and construction of the Aeration Basins, Anaerobic Basins, RAS piping, Blower Building, and RAS pump replacement. The existing wastewater treatment facility will require three (3) Trickling Filters (5,6, and 7) and four (4) Solids Contact Tanks (SCTs 1 through 4) to remain operational during demolition of Trickling Filter 1 and the West Trickling Filter pump station for the construction of the Primary Effluent Pump Station (PEPS) and Anaerobic and Aeration Electrical Building. Operation of plant on three (3) Trickling Filters shall be minimized. Duration of construction and commissioning of PEPS and Aeration and Anaerobic Electrical building shall be a maximum of one year.
- iii. The existing wastewater treatment process requires nine secondary clarifiers (1-12) to be operational from May 15th through October 1st. From October 2nd through May 14th, ten of the clarifiers (1-12) are required to be operational. Replacement of RAS pump shall be coordinated with CVWRF so that no more than two (2) RAS pumps and two (2) corresponding clarifiers shall be out of service at any one time.
- iv. The Primary Effluent (PE) channels can be shut down from 12:01 am to 7:00 am to allow installation of mixers and modifications to PE channels. The PE channel must be returned to operation in the morning. Shutdowns are allowed if proposed by the Contractor as required by 1.02A. The existing wastewater treatment plant requires eight primary clarifiers to be operational at a time. Two clarifiers can be shutdown at a time to complete work in the PE channel.
- v. Existing sand filter is to remain in operation until completion of Construction Contract CC5F 3 Water Improvements project in October 2020. The 21” SE pipe supplying the reuse water splitter box, the 10” SE pipe supplying the sand filter, the 18” RWR supplying the west



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pond, the 15" RWR and 10" RWR supplying the south pond must be maintained in service through October of 2020. These pipes are located on the southern edge of Trickling Filter 3.

- vi. The Contractor shall not adjust or operate serviceable or functioning equipment or systems except as specifically required by this contract.
- vii. Equipment presently installed in the treatment plant must always be available to plant personnel for use, maintenance and repair.
- viii. Contractor equipment, materials or any material included in the work shall be placed in areas which do not interfere with the plant operations.
- ix. The Contractor shall not schedule any outages or testing and commissioning events without prior approval of the Construction Manager. The Contractor shall notify the Construction Manager 14 days in advance of any required shutdown or service. Written authority from the Construction Manager is required for all intentional power interruptions.
- x. The Contractor is to provide whatever temporary piping, pumping, power, and control facilities required to maintain continuous plant operations and complete treatment.
- xi. The integrity of the existing plant utilities shall always be maintained by the Contractor.
- xii. Contractor to provide a Maintenance of Plant Operations (MOP's) tracking list to detail work sequence and system shut down periods.
  - 1. 3W Cooling tie in.
  - 2. 3W High Pressure tie in.
  - 3. 3W Low Pressure tie in.
  - 4. 1W tie in.
  - 5. Natural gas system for tie in.
  - 6. Shutdown of Mixed Gas feedline.
  - 7. Aeration piping connection to CC30A Blower Building Aeration Piping
- xiii. The 3W Cooling water system is to remain in operation during the construction and shutdowns shall not exceed 2 hours. Shutdowns are to be coordinated with the Construction Manager.
- xiv. Shutdowns of the 3W High, and Low-Pressure systems shall not exceed 4 hours. Shutdowns are to be coordinated with the Construction Manager.
- xv. Shutdowns of the 1W system shall not exceed 2 hours. Shutdowns are to be coordinated with the Construction Manager.
- xvi. Shutdowns for natural gas tie ins shall not exceed 2 hours. Shutdowns are to be coordinated with the Construction Manager.
- xvii. Contractor to provide setup and startup plans.

### C. Survey and Layout Data – 01 32 23

- i. Horizontal and Vertical - Field Verify



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**D. Environmental Conditions – 01 11 80**

- i. Winter and Summer Conditions
- ii. Pathogens
- iii. Historic uranium processing tailings
- iv. Flow Conditions – Peak: 117.7 MGD

**E. Temporary Facilities and Controls – 01 51 00**

**F. Geotechnical Instrumentation and Monitoring – 31 09 00**

- i. Undocumented fill

**G. Sheeting, Shoring, and Bracing – 31 41 00**

**H. General Discussion**

- i. Parking area construction and maintenance for duration of project.- To be provided by Central Valley
- ii. Construction of walking bridge – To be provided by Central Valley.
- iii. Maintain plant flows during start up and commissioning
- iv. Maintain use of 4 Trickling Filters as long as possible. Operation on 3 Trickling Filters is limited to one year before operation on PEPS and Aeration basins.
- v. Use of demolished concrete as subgrade backfill is acceptable
- vi. Sequencing plan is required
- vii. Assigned Contracts/Pre-negotiated equipment/Owner Installed equipment:
  - PEPS pumps - contract assigned to Contractor
  - Binder Valves - contract assigned to Contractor
  - Invent Mixers – Pre-Negotiated price
  - RAS pumps – CVWRF to purchase and supply to Contractor.

**QUESTIONS**

1. Who pays for building permits?

CVWRF will pay for the building permits through South Salt Lake City. It will be the contractors responsibility to pick up the permit and coordinate with SSLC for inspections.

2. What is the quantity of snails to remove?

There is an estimated 2 feet of snails in the Solids Contact basins. The total quantity of snails to be removed and disposed of is 3,700 cubic yards. Snails are required to be disposed of off-site.

3. Is temporary fencing required to secure the site?

Temporary fencing is required to secure the site.

4. Will composting remain in operation during the construction?



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Yes. Composting operations to remain open during construction of the BNR system. Composting hours are sun- up to sun-down.

5. Is the access road to 900 West available for hauling material?

Yes the West access road is available to haul material from the site.

6. Will there be access at the North gate?

Access will be limited at the north gate. The 3W contractor will have access blocked for construction. Security guard will lock north access gate at 4:00pm

7. Can the project be split into smaller packages?

No the project will not be split into smaller units. CVWRF will accept a teaming or joint venture. Any proposed teams will need to be declared to CVWRF no later than one week before the bid. CVWRF requires at least two bids to award the project.

8. Can CVWRF provide a plan for spending?

There is a spending limitation for the first year of \$13.5 Million. The remaining years will be limited to the contractors proposed spending schedule.

9. Is mixer installation required for substantial completion?

No Mixer installation is not required for substantial completion.

10. Is removal of agitation air piping and channel work part of substantial completion?

No, removal of agitation air and modifications of diffuser boxes can be completed after substantial completion.

11. Can the completion schedule be moved back?

Yes. The completion date will be revised to July 10, 2024. Substantial Completion will be revised to 1,493 days from Notice to proceed.

12. What is the clear water testing requirement?

The contract does specify operation of the plant with clean water prior to introducing wastewater. The specifications do require testing individual components with clean water prior to introducing wastewater.

13. What is the type of material for the IMLR piping?

The IMLR piping is shown as Cement Mortar lined and Coated Carbon Steel. 304 Stainless steel will be acceptable as an alternative.

14. Are the aeration control valves (Binder) an assembly and exempt from the AIS requirements?

Aeration control valves are not exempt and will need to be tracked as a De Minimis item in the project.

15. Stainless steel bolt AIS exemption has expired, it is not known at this time if an extension will be granted.

The bolts will either need to be AIS compliant or tracked as part of the De Minimis clause.

16. Material testing for concrete and compaction will be completed by a Third Party testing firm paid by CVWRF. Contractor to schedule testing as needed.

17. Procor will be used as the construction management software to track Submittals and RFI's.

18. What is the minimum number of primary clarifiers that can be operated.





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A minimum of 6 primary clarifiers are required at a time.

19. How much of the PE channels can be shutdown?

Two primary clarifiers can be shutdown at a time at the PE channel between them for cleaning. If the East and West Connectors are operational then four primary clarifiers can be shutdown at a time and the PE channel between them can be dewatered.

20. Is sales tax included in pre-purchased equipment?

Yes, sales tax has been included in pre-purchased equipment price.

21. If suppliers listed in the 00 42 00 Bid Schedule do not supply prices, how should this be shown?

List the supplier as 'No Bid' . Prepare to provide back up documents (emails of bid solicitations) showing supplier declined to bid or did not respond to solicitations.

22. Lowest RAS pump speed produces 3,600 gpm, Is this flow rate to much for the process at start up?

No. The pumps can be throttled.

23. Will there be a yard to bring in a crusher?

The areas shown in the Contract documents are what is available. Staging of work may allow a crusher depending on contractors work sequence.

24. Can spoils be stored on site.

There is limited space for spoils on site. It is anticipated that spoils will be hauled offsite and returned to site during backfill operations.

25. Can Backfill around basins be native material?

Yes backfill around basins can be native if it meets the requirements of the specifications for backfill.

26. Will building permits be required?

Yes, it is anticipated that at a minimum the Electrical Building and the RAS Selector electrical building will require a building permit.

27. Will temporary construction power be provided?

Temporary power will be provided. One 60 amp 480 V breaker. Contractor is required to provide stepdown transformers for any alternate voltages.

28. Can water from dewatering operations be returned to the plant influent ?

The water can be discharge to the influent if the silts and sands are removed prior to discharging to the plant influent.

29. Is a storm water construction permit required?

Yes a SWPPP is required.

30. Will badges be required for delivery trucks?

Badges will not be required for delivery trucks.

31. Is there a possibility of putting another gate at the north entrance.



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No. The 3W building construction will limit access.

32. What is the start up sequence for the PEPS?

Aeration basin will need to be ready to accept wastewater and then start up of PEPS pump station with one pump at a time while operating East Trickling Filters

33. Can the BNR be started without RAS? Will sludge be required to seed the process?

RAS from the secondary clarifiers can be transferred, but is not necessary. Intent is to build biomass in BNR basins from the influent PE.

34. Do the other projects that are planned impact start up of the BNR operation?

The other planned projects, Sidestream N, Sidestream P and Primary Sludge Thickening will not interfere with start up and operation of the BNR system. BNR can be started and operated to meet current discharge limits. Other projects will be required to meet the new discharge limits.

35. Is there a cap on spending during the first year?

There is a spending limitation for the first year of \$13.5 Million. The remaining years will be limited to the contractors proposed spending schedule. The following years will need to be submitted to CV in June to be included in the Budget.

36. The schedule is being dictated by the permitting requirements. Central Valley will have new discharge limits on January 1, 2025.

37. What is the schedule for the East connector installation?

The east connector can not be completed until after the PEPS station is operating and taking all the wastewater.

38. How long is the anticipated clean water test?

Pump performance checks, diffuser installation and hydrotest should be with clean water but after individual items are tested then wastewater can be introduced and the system started.

39. Can the basins be test one at a time?

Yes the basins can be tested one at a time. There is a deep sump pump station that can move water from one basin to another.

40. What is exposed piping material?

Most of exposed piping is Cement mortar lined and coated steel. Exposed piping can be stainless steel.

41. What is aeration piping thickness?

Aeration piping is 304 Stainless Steel Schedule 10.

45. For the SRF funding a letter stating that the materials comply with AIS is required. A standard form letter is provided in the specifications. Letters referring to ARRA or Buy American are not acceptable.

46. Is there a max limit on the amount that can be subcontracted?

No. There is not a cap on subcontracting.

47. Is the 3D model available?



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Yes. The model was included in Addendum 1.

48. Can there be a separate meeting to review the work sequence?

Yes. A voluntary Work Sequence meeting will be held.