

Taunton, MA
Wastewater Treatment Facility
Phase I Improvements
CWSRF 4605
Addendum No. 1
July 26, 2021

This Addendum No. 2 forms a part of the Contract Documents and modifies the Bidding Documents dated July 2nd, 2021 as noted below. Acknowledge receipt of this Addendum in the space provided in the Bid Form. Failure to do so may subject the Bidder to disqualification.

Item 1: SECTION 13322 SUPERVISORY CONTROL AND DATA ACQUISITION SYSTEM

Part 2.3(X) SCADA SYSTEM SOFTWARE : DELETE in its entirety and **ADD**:

The SCADA system software shall be Wonderware, iFIX, RSView, or **VTScada**. A minimum of one year of extended service support from the manufacturer of the SCADA system software shall be provided

Item 2: SECTION 00500 CONTRACT

Pages 00500-78 and 00500-79 Exhibit D INSURANCE REQUIREMENTS : DELETE in its entirety and **ADD Attached Exhibit D**

Item 3: SECTION 00300 BID

Pages 00300-01 through 00300-04 BID FORM : DELETE in its entirety and **ADD Attached BID FORM**

Item 4: Requests for Information and Clarification: The following questions were received regarding the bidding documents and subsequent addendums.

1. Will you be requiring the general contractors to provide a builders risk or OCP policy and if so what are the coverage requirements?

Response: GCs should carry Builders Risk insurance. See Item 2 above

2. Spec section 01010 1.11 states “Contractors and subcontractors completing work on this project shall be DCAM certified in the appropriate category for the work”, please confirm if this is required. If so, please provide a list of what trades need to meet this requirement.

Response: DCAM certificates are not required

3. Please provide a specification for the scum concentrator indicated on DWG M-7.2.

Response: See attached specification SECTION 11317

4. Please confirm the Biofilter (Odor Control) piping scope of work as indicated on DWG M-1.2 and any other areas it may be required.

Response: The Biofilter (Odor Control) piping scope of work is not part of this contract and is being performed by others.

5. Specifications 07001 Roofing and Flashing – General, 07002 Waterproofing, Damp-proofing, and Caulking – General, 09001 Tile – General, and 09002 Acoustical Tile – General are written as ‘Filed Sub-Bid Required’. Please confirm that these trades, and related specification sections, will be the responsibility of the General Contractor.

Response: Yes, these trades are the responsibility of the General Contractor; However, Filed Sub-Bids are not required.

6. Drawing M-7.2 shows a new scum concentrator using bold lines, indicating it is part of the project scope. This equipment is not listed in the project specifications. Please clarify who is responsible for the supply and installation of the scum concentrator. If by the GC, please provide a scope and specification.

Response: The GC is responsible for the supply and installation of the scum concentrator. Spec for the concentrator is attached.

7. On Drawing M-1.1 please confirm that if any of the existing channel mounted frames are embedded in the concrete, that the frames are to be abandoned in place.

Response: Confirmed – any embedded gate frames may be abandoned in place and new frames can be installed flush with concrete.

8. Spec 00100 page 3 includes direction that Veolia will consider two different options for awarding the project. Please confirm that option no. 2, a combined Package #1 and Package #2 bid by a GC is for GCs that self-perform electrical work. Should Veolia choose option no. 1, please confirm that Veolia will contract directly with an electrical contractor (EC).

Response: Veolia will contract directly with an electrical contractor unless a combined bid, which includes self-performed electrical work, is selected from the general contractor.

9. Spec 00500 paragraph 6 in Exhibit A lists two contracts that will be supplied by Veolia (Bid Package #2 and Bid Package #3). Bid package #2 is for the electrical scope of work. Veolia lists several GC responsibilities associated with the Veolia supplied work. Please confirm that for the electrical scope of work (Bid Package #2) that Veolia or the EC working for Veolia is responsible for providing and reviewing electrical submittals and shop drawings for their work; inspecting for completeness or damage; that the EC is responsible for handling, storing, and installing products provided by the EC; repairing or replacing products/items damaged—through no fault of the GC or their subs—that are stored and/or installed by the EC on site are the EC's responsibility; and that the EC is responsible for manufacturer's inspections, service, and startup services and training for equipment supplied by the EC.

Response: Confirmed, the Electrical Contractor will be responsible for these items

10. Spec 00500 paragraph 6 in Exhibit A lists two contracts that will be supplied by Veolia (Bid Package #2 and Bid Package #3). Bid package #3 is for the controls scope of work. Veolia lists several GC responsibilities associated with the Veolia supplied work. Please confirm that for the controls scope of work (Bid Package #3) that Veolia will provide approved shop drawings from the controls supplier for GC review only; that Veolia will schedule delivery, store, and complete inventory of controls provided by their controls supplier; that GC will only install instruments that are NOT scheduled to be installed by the EC as listed in Div 16 specs; that Veolia will repair or replace instruments/products damaged—through no fault of the GC or their subs—after receipt or installation; and that Veolia will arrange for manufacturer's inspections, service, and startup services and training for equipment supplied by Veolia's controls supplier.

Response: Confirmed, the Instrumentation and Controls Contractor will be responsible for these items

11. Please confirm that the E-series drawings and the division 16 electrical specifications are included in Bid Package #2 (EC work provided by Veolia) and have been included in Bid Package #1 (GC work) for reference only.

Response: Veolia is providing for reference only.

12. Please confirm that the I-series drawings and the division 13 control specifications (excluding 13120 – Pre-Engineered Metal Structures) are included in Bid Package #3

(Controls Work provided by Veolia) and have been included in Bid Package #1 (GC work) for reference only.

Response: Veolia is providing for reference only.

13. Please confirm that all cutting, coring, sealing, and patching required for EC work is the responsibility of the EC.

Response: The Electrical Contractor will be responsible for all cutting, coring, sealing, and patching required for Division 16 work.

14. On Drawing M-1.1, please confirm that temporary support of electrical panels on the south exterior wall during headworks building replacement is the responsibility of the EC, including any temporary power or control wiring required during building replacement.

Response: The Electrical Contractor will be responsible for this work.

15. Specification 16000 paragraph 1.1.E. directs the EC to mount and wire process instruments and control cabinets furnished under other divisions. Please confirm that GC is responsible for mounting “wetted” wired process instruments (i.e., level switches, level transducers, UT level sensors, pressure transmitters, temperature elements, flow elements, etc.) and the EC is responsible for mounting all other non-wetted control instruments, cabinets, control panels, etc.

Response: The Electrical Contractor will be responsible for this work.

16. Specification 16080 implies that all buried electrical work including excavation, bedding, reinforcing, concrete, backfill, and restoration of disturbed ground finishes are the responsibility of the EC. Please confirm.

Response: The Electrical Contractor will be responsible for this work.

17. Pipe schedule on M-0.1 lists both S80 PVC and HDPE for Lime Slurry Piping. Please confirm that S80 PVC is acceptable for both above and below grade Lime Slurry Piping.

Response: Sch 80 PVC is acceptable for both above and below ground lime slurry piping. PVC pipe with direct exposure to sunlight (outdoors and above grade) shall be protected from UV exposure via painting or other method.

18. Pipe schedule on M-0.1 does not list any heat trace or insulation requirements for Plant Water or Lime Slurry piping. Drawing M-1.2 indicates there are outdoor above

ground runs of both systems to the Lime Silo. Please confirm no heat trace or insulation is required.

Response: No heat trace or insulation is required on Lime Slurry piping

19. Drawing G-2.2 shows more slide gates than shown on M-1.2 at the headworks. Please confirm that drawing M-1.2 shows the correct quantity and location of gates.

Response: Drawing M-1.2 shows the correct number and arrangement of gates.

20. Architectural plan notes for Pump Station #1 (A-4.1; note 2), Pump Station #2 (A-4.2; note 2), Chemical Handling Building (A-5.1; note 2), Solids Handling Building (A-7.2, note 1), Operations Building (A-9.5; note 1), and the Storage Building (A-9.6; note 2) call out for brick 'repair and repoint as necessary'. To promote a fair bidding process, can an estimated area for each building be provided, or a unit price line item be used?

Response: BID FORM has been updated. See Item 3 above

21. Architectural plan notes for Pump Station #1 (A-4.1; note 4), Pump Station #2 (A-4.2; note 4), Chemical Handling Building (A-5.1; note 4), Operations Building (A-9.5; note 2), and the Storage Building (A-9.6; note 3) call out for stucco 'repair as necessary'. To promote a fair bidding process, can an estimated area for each building be provided, or a unit price line item be used?

Response: BID FORM has been updated. See Item 3 above

22. Specification 09003 Resilient Floors – General refers to a filed sub-bid for the work of specification 09650 – Resilient Floors, however, there is no specification 09650 included in the bid package and there does not appear to be any shown on the finish schedule. Please confirm that there is no work related to resilient floors.

Response: Confirmed – there is no work related to resilient floors on this contract

23. There is a specification 08211 for FRP doors, however, there are none shown on the door schedule. Please confirm that there is no work related to FRP doors on this project.

Response: Confirmed – there are no FRP doors

24. Section 1 on drawing M-5.1 shows the bottom of the existing frames for the slide gates to be embedded in the concrete. Please confirm that embedded existing gate

frames can be abandoned in place and that the bottom of the new slide gate frames can sit flush on the bottom of the chlorine contact tank inlet chamber.

Response: Confirmed – any embedded gate frames may be abandoned in place and new frames can be installed flush with concrete.

25. Drawing M-2.1 does not show the 2” grout being demolished in the existing primary clarifiers at the bottom of the clarifiers. Please confirm the 2” grout is to remain in the bottom of the existing primary clarifiers.

Response: Correct, grout is to remain

26. Drawing M-2.8 shows a 14” Modulating Valve, but it does not identify what type of valve is required (plug, butterfly, globe, etc.). Please provide valve type.

Response: Butterfly valve.

27. Spec 01810 page 3 indicates that the “Overflow channel shall be kept in operation at all times”. Is the “overflow channel” the channel adjacent to the fine screen channels that has a manual bar rack in it (refer to M-1.1) and referred to as “Bypass Channel” on M-1.2? If so, how are the gates to be replaced if the channel is to be kept in operation?

Response: The bypass channel must be kept in operation during the replacement of the screens - i.e., 2 of the 3 total channels shall be operational at any time.

28. Please confirm that both grit chambers in the headworks can be off-line at the same time.

Response: Only in an emergency. One grit chamber is capable of handling the entire plant flow, so the intent is to rehab one grit chamber at a time.

29. Refer to drawing M-1.2 section 4. The wash press drain appears to be discharging at elevation 34.67’. The drain should be piped to the fine screens effluent channel, however the channel top of concrete is elevation 36.18’. Please identify if there is a floor drain in the area of the wash press and the approximate location of the floor drain OR if the wash press drain is to be cored through the side wall of the Fine Screen No. 2 side-wall concrete channel to maintain gravity flow.

Response: The intent is to discharge the new drain through the existing drain penetration through the channel wall. There are no floor drains and additional coring is to be avoided if possible.

30. Please confirm the building permit fee will be paid by the owner?

Response: Yes, fees for City permits will be waived.

31. Hopper Dredge, Heavy Dredging and Heavy & Marine Construction Projects we provided for the Davis-Bacon wage decisions on this project. Please confirm these decisions are the correct ones to use as this is not a Marine or Dredging project?

Response: All Davis Bacon wage rates that could have anything to do with the project are included. If extraneous decisions are present then ignore them.

32. The notice to bidders (NTB) states the D/WBE is 4.9% and the D/MBE is 4.6%. Form EEO-DEP-E page 1 of 16 states the D/WBE is 6.4% and the D/MBE is 5.9% for this project. Please confirm the goals are 4.9% and 4.6% as stated in the NTB?

Response: This is correct, the goals are 4.9% and 4.6% as stated in the NTB

33. Specification section 01810 references specification sections 00700 – General Conditions, 00800 – Supplementary Conditions, 01510 – Temporary Utilities and 02149 – Maintenance of Existing Flows. Please provide these specification sections?

Response: These Spec Sections do not exist for this contract. Please disregard.

34. Please confirm that all temporary power hookups for the project are the responsibility of the Bid Package #2 Electrical Contractor?

Response: Yes, the temporary power responsibilities of the electrical contractor are outlined in Specification Section 16000, Part 1.13

35. Plan sheet C-1.5, please confirm the (2) runs of erosion control barrier shown at the construction staging area (by others) and biofilter structure (bottom left section of page) is by others under a separate contract?

Response: Correct - the work at the staging area and biofilter are part of a prior contract and are by others.

36. Drawing SG-2 penetration schedule lists different types of wall pipes or wall sleeves to be utilized for existing concrete structure pipe penetrations. This requires oversize coring and/or concrete demo to cast a new wall sleeve or wall pipe in an existing concrete structure with a two-component polymer cementitious repair mortar (reference drawing MD-1 details 413 and 415). Please confirm that concrete cores with double link

seals is an acceptable alternative to having to cast wall sleeves or wall pipes in existing concrete walls (similar to detail 410 on MD-1).

Response: Details 413 and 415 are intended to be used when a pipe penetration is being replaced - i.e. some demolition of the wall is required to remove the old pipe. Detail 410 is intended to be used for new cored penetrations.

37. Drawing S-1.1 shows the handrails for Grit Chamber #1 to remain. Drawing M-1.2 shows new handrail around Grit Chamber #1. Please clarify the intent of handrail work at Grit Chamber #1.

Response: The intent is to replace the handrails at the grit chamber.

38. Please confirm any pipes located understructures, ie – Primary Clarifier No.4, are not required to be concrete encased.

Response: Correct - pipes beneath structures are not required to be encased in concrete.

39. Specification Section 00300 - Bid Form: Page 3 provides lines to write in “Total of Taunton WWFT Phase 1 Improvements Bid Package #1 AND BID PACKAGE #@ ELECTRICAL (COMBINED)” however there are no similar lines to provide a total price inclusive of Package #3 Instrumentation. Please confirm whether or not General Contractor’s bidding this project will have the opportunity to provide a combined price that includes packages 1,2 and 3, or if they will only provide pricing for the combination of package 1&2.

Response: The combined bid for this project will only include a pricing combination of bid packages #1 and #2.

40. The scope of work identified in drawings H7.1 through H7.8 was part of the Solids Handling Improvements that bid in April 2021. Please confirm that the HVAC scope of work identified in the Phase 1 HVAC drawings at the Solids Handling Building is not part of this Phase 1 contract.

Response: The Phase 1 contract will include the scope of work identified in drawings H7.1 through H7.8. This scope of work was removed from Solids Handling contract.

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EXHIBIT D

INSURANCE REQUIREMENTS

Without in any way limiting Subcontractor's liability hereunder, Subcontractor shall maintain the following minimum limits of insurance at its own expense during the performance of the Work, with insurance companies rated A-VII or higher by A.M. Best's, to cover the risk of losses associated with this Agreement:

Coverage	Limits
(i) Workers' Compensation	Statutory
(ii) Employers' Liability	\$1,000,000 each accident \$1,000,000 each employee \$1,000,000 policy limit
(iii) Commercial General Liability written on ISO CG 00 01 coverage form or its equivalent. No limiting or exclusionary endorsements material to Subcontractor's obligations in this Subcontract may be attached. Coverage shall include: a) contractual liability; b) explosion, collapse & underground perils (XCU); c) third-party over action coverage; d) Riggers Liability endorsement for the use of cranes, booms or other rigging equipment, if applicable; and e) amendment of the aircraft exclusion to include coverage for the use of commercial UAVs (drones), if applicable	\$2,000,000 each occurrence for property damage and bodily injury (PD/BI) \$2,000,000 general aggregate per project \$2,000,000 products/completed operations aggregate
(iv) Automobile Liability – covering all owned (if any), hired and non-owned autos. If Subcontractor is performing any hauling, endorsements MCS-90 and/or CA 99 48 shall be attached.	Bodily Injury \$1,000,000. Each person Property Damage 1,000,000. Each accident
(v) Umbrella/Excess Liability providing coverage at least as broad as the underlying policy(ies)	May be utilized to meet limits outlined above
(vi) Property	Subcontractor shall be solely responsible for protecting and insuring all property owned or leased or used by Subcontractor in conjunction with the Work during the term of this Subcontract
(vii) Professional Liability (Errors & Omissions), if applicable to the Work – Coverage shall not exclude Technology Errors & Omissions coverage if Subcontractor will have any type of access to any Company systems, including, but not limited to, any Company-owned or managed IT asset (network, server or application) wherever it is hosted	\$1,000,000 each claim \$1,000,000 annual aggregate
(viii) Contractor's Pollution Liability, if applicable to the Work	\$1,000,000 each claim \$1,000,000 annual aggregate

Subcontractor shall purchase and maintain Builders Risk Insurance in the amount of the full replacement cost of the Project:

1. Include the interests of Company, Subcontractor, Client and any other individuals or entities identified and the officers, directors, members, partners, employees, agents, consultants, and

subcontractors of each and any of them (“Builders Risk Insureds”), each of whom is deemed to have an insurable interest and shall be listed as a loss payee;

2. Be written on a Builder’s Risk “all-risk” policy form that shall at least include insurance for physical loss or damage to the Work, temporary buildings, falsework, and materials and equipment in transit and stored off-site, and shall insure against at least the following perils or causes of loss: fire, lightning, extended coverage, theft, vandalism and malicious mischief, earthquake, collapse, windstorm, terrorism, debris removal, demolition occasioned by enforcement of Laws and Regulations, water damage (other than that caused by flood), and such other perils or causes of loss as may be specifically required below:
3. Include expenses incurred in the repair or replacement of any insured property (including but not limited to fees and charges of engineers and architects);
4. Cover materials and equipment stored at the Site or at another location that was agreed to in writing by Company, Subcontractor, and Client prior to being incorporated in the Work, provided that such materials and equipment have been included in an Application for Payment approved by Company;
5. Allow for partial utilization of the Work by Company;
6. Include testing and startup; and
7. Be maintained in effect until final payment is made unless otherwise agreed to in writing by Company, Subcontractor, and Client with 30 days written notice to each other loss payee to whom a certificate of insurance has been issued.

Prior to providing any Work under this Agreement, Subcontractor will provide Company with an ACORD certificate of insurance evidencing that the above described coverages are in full force and effect. Subcontractor will name Company and Client as additional insured with respect to coverages (iii), (iv), and (viii), (and (v) if applicable) above. All policies will be primary and non-contributory, provide a full waiver of the insurer’s right of subrogation in favor of Company and Client, if applicable, and/or any sub-subcontractor with respect to claims that are covered or should have been covered by valid and collectible insurance provided hereunder and said waiver will extend to any deductibles, co-insurance or retentions. Subcontractor will not permit any cancellation or non-renewal in the insurance coverage to be provided hereunder without thirty (30) days’ written notice to Company.

All policies shall be issued on occurrence-based forms, except for coverages (vii) or (viii), which may be issued on a claims-made form. All claims-made policies will at least be retroactive to the earlier of the date of this Agreement or the commencement of Subcontractor’s services in relation to the Work, and shall be maintained for three (3) years after the expiration or termination of this Agreement.

These insurance requirements will not be construed in any matter as waiving, restricting or limiting Company’s rights or Subcontractor’s obligations under this Agreement. Company does not represent that coverage or limits herein will be adequate to protect Subcontractor. Subcontractor remains responsible for any liability not paid by insurance including deductibles and retentions.

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SECTION 00300

BID FORM

THIS BID IS SUBMITTED TO: Veolia Water North America - Northeast, LLC

PROJECT IDENTIFICATION: City of Taunton, MA
Wastewater Treatment Facility
Phase 1 Improvements – Bid Package #1
Contract S-2021-1, CWSRF 4605

- A. The undersigned declares that the only persons or parties interested in this Bid as principals are as stated; that the Bid is made without any collusion with other persons, firms, or corporations; that all the Procurement Documents as prepared by Veolia Water North America - Northeast, LLC, 53 State Street, 14th Floor, Boston, MA, 02109 and dated July 2 2021 have been carefully examined; that the undersigned is fully informed in regard to all conditions pertaining to the work and the place where it is to be delivered, and from them the undersigned makes this Bid. These prices shall cover all expenses incurred in providing the Goods and Services required under the Procurement Documents, of which this Bid Form is a part.
- B. The time period for holding bids, where Federal approval is not required is 30 days, Saturdays, Sundays and legal holidays excluded, after the opening of bids and where Federal approval is required, the time period for holding bids is 30 days, Saturdays, Sundays and holidays excluded after Federal approval.
- C. If unsigned copies of the Construction Agreement are delivered to the undersigned within sixty days, excluding Saturdays, Sundays, and legal holidays, after the actual date of the opening of the Bids, the undersigned will within three days, excluding Saturdays, Sundays, and legal holidays, after the date of receipt of such notification, execute and return all copies of the Construction Agreement to Veolia.
- D. The undersigned hereby agrees to fully complete the Phase 1 Improvements, Bid Package #1 in accordance with the terms stated in the Agreement.
- E. The undersigned acknowledges receipt of addenda:

Addendum No. _____, dated _____

Addendum No. _____, dated _____

Addendum No. _____, dated _____
- F. The undersigned agrees that, if they are selected as Contractor, they will within five days, Saturdays, Sundays and legal holidays excluded, after presentation thereof by the Company (Veolia), execute a contract in accordance with the terms of this bid and furnish a performance bond in the amount of 100% of the total contract price and also a labor and materials or payment bond in the amount of 100% of the total contract price, each of a surety company qualified to do business under the laws of the Commonwealth and satisfactory to the Company and each in the sum of the contract price, the premiums for which are to be paid by the Contractor and are included in the contract price.
- G. The Subcontractor shall complete all work required under the Contract within 548 days of the issuance of a Notice to Proceed. Work performed beyond the completion date will be subjected to liquidated damages in the amount specified herein.
- H. Liquidated damages specified in this contract are \$1,000 per day for each calendar day beyond the contract completion date that work remains uncompleted.
- I. The time period for holding bids, where Federal approval is not required is 30 days, Saturdays, Sundays and legal holidays excluded, after the opening of bids and where Federal approval is required, the time period for holding bids is 30 days, Saturdays, Sundays and holidays excluded after Federal approval.
- J. Pursuant to M.G.L.c.62C, s49A I certify under the penalties of perjury that I, to my best knowledge and belief, have filed all state tax returns and paid all State Taxes required under law.

- K. The undersigned bidder hereby certifies he/she will comply with the specific affirmative action steps contained in the EEO/AA provisions of this Contract, including compliance with the Disadvantaged Business Enterprise provisions as required under these contract provisions. The contractor receiving the award of the contract shall incorporate the EEO/AA provisions of this contract into all subcontracts and purchase orders so that such provisions will be binding upon each subcontractor or vendor.
- L. The undersigned further certifies under penalty of perjury that the said undersigned is not presently debarred from doing public construction work in the Commonwealth under the provisions of Section Twenty-Nine F of Chapter Twenty-Nine, or any other applicable debarment provisions of any other Chapter of the General Laws or any rule or regulation promulgated thereunder; and is not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency.
- M. Bidders must fully comply with Subpart C of 2 CFR Part 180 and 2 CFR Part 1532, entitled responsibilities of Participants Regarding transactions (Doing Business with Other Persons). Contractors, subcontractors, or suppliers that appear on the Excluded Parties List System at www.usgovxml.com/dataservice.aspx?ds=EPLS are not eligible for award of any contracts funded by the Massachusetts State Revolving Fund.
- N. Bidders must fully comply with the Diesel Retrofit Program. See Appendix B to the Agreement.
- O. In accordance with the above understanding, the undersigned proposes to furnish all Goods and Services, and complete the Work in its entirety in the manner and under the conditions required at the prices listed as follows:

<u>Item Number</u>	<u>Estimated Quantity</u>	<u>Brief Description: unit or lump-sum price bid in both words and figures.</u>	<u>Total in Figures</u>
1	1 LS	Phase 1 Improvements, all work excluding bid package 2 (Electrical), bid package 3 (Instrumentation and Control), and bid items 2-5	
		_____dollars	
		and _____cents (\$ _____) \$ _____	
2	250 LF	Crack Repair of Existing Concrete Tanks and structures, per linear foot,	
		_____dollars	
		and _____cents (\$ _____) \$ _____	
3	350 SF	Concrete Spalling Repair of Existing Concrete Tanks, and structures, per square foot,	
		_____dollars	
		and _____cents (\$ _____) \$ _____	
4	30,000 SF	Concrete Protective Coating of Existing Concrete Tanks, and structures, per square foot,	
		_____dollars	
		and _____cents (\$ _____) \$ _____	

TOTAL OF TAUNTON WWTF PHASE 1 IMPROVEMENTS BID PACKAGE #1 **AND**

BID PACKAGE #2 - ELECTRICAL (COMBINDED): (if applicable)

In Figures: \$ _____

In Words: _____ Dollars

and _____ Cents

Amounts shall be shown in both words and figures, where indicated. In case of discrepancy, the amount shown in words will govern.

The above prices shall include all labor, materials, delivery, overhead, profit, insurance, and incidentals required to complete the Work.

P. The names and residences of all persons and parties interested in the foregoing Bid as principals are as follows:

(Give first and last names in full.)

Q. Notice of acceptance should be e-mailed or delivered to the undersigned Bidder at the following address:

(Name of Bidder)

(Title)

(Business Address)

(City and State)

Date

Note: If the Bidder is a corporation, indicate State of incorporation under signature, and affix corporate seal; if a limited liability company, indicate State of formation under signature; if a partnership, give full names and residential addresses, if different from business address.

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SECTION 11317

SCUM CONCENTRATOR

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. This specification covers the furnishing and installation of one (1) scum concentrator.

1.02 RELATED SECTIONS

- A. SECTION 01300 – SUBMITTALS
- B. SECTION 01665 – SERVICES OF MANUFACTURER’S REPRESENTATIVE
- C. SECTION 01680 – EQUIPMENT AND SYSTEM CHECKOUT, CERTIFICATION, AND TESTING
- D. SECTION 01730 – OPERATION AND MAINTENANCE MANUALS
- E. SECTION 11961 – INTERIOR AND EXTERIOR PROCESS PIPING
- F. SECTION 13321 – INSTRUMENTATION AND CONTROL SYSTEM

1.03 SUBMITTALS

- A. Shop Drawings in accordance with specification Section 01300.
- B. Submittals shall include (but not be limited to):
 - 1. Dimensions and weight of unit
 - 2. Material Testing certifications
 - 3. American Iron and Steel Certificate of Compliance
 - 4. Anchor bolt patterns
- C. Operation and Maintenance Manual in accordance with specification Section 01730.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Envirocare/Saracco, American Canyon, CA (Model 60-500)
- B. Approved equal.

2.02 DESIGN

- A. Scum concentrator shall be capable of handling 60 gpm of fats, oils, and greases (FOG) with a concentration of up to 2%.
- B. Unit shall consist of a filter, a Concentrator Tank, a holding tank (with blender), a FOG pump, and a local control panel.

2.03 MATERIALS

- A. Concentrator Tank: the concentrator tank shall have a capacity of approximately 2,000 gallons and shall be manufactured of ¼” thick steel plate. Tank shall have a separation rate of not greater than 2.5gpm per square foot. Tank shall be equipped with an inlet flow distributor, concentrator compartment, underflow baffle, mechanically adjustable level control, effluent nozzle, drain/cleanout nozzle, recirculation connection, skimming beach ramp, and surface skimming mechanism. Piping connections shall be Schedule 40 PVC with flanged connections. Skimmer mechanism shall be driven by a ½ HP TEFC motor. Concentrator tank shall be equipped with FRP odor control covers.
- B. Holding Tank: the holding tank shall have an approximate working capacity of 500 gallons. Tank shall be manufactured of 3/16” steel and shall come supplied with all necessary stiffeners, supports, cover, and mounting flanges. Holding tank shall have a stainless steel lid

2.04 ACCESSORIES

- A. Holding Tank Level Indicators: holding tank shall be equipped with four (4) level sensors
- B. Holding Tank Heating System: holding tank shall be factory equipped with strip heating elements capable of maintaining a temperature within the holding tank of between 85°-105°F. System shall include 2” insulation and a thermocouple to regulate the temperature of the contents of the tank.
- C. Holding Tank Blender: holding tank shall be equipped with a vertical shaft mounted motor driven blender with reducer. Impeller shall be stainless steel. Blender shall be mounted such that it is removable through tank cover.
- D. FOG Pump: pumping system shall be factory installed and shall be compatible with the flow rates and materials being pumped.

2.05 CONTROLS

- A. Unit shall be furnished with a factory installed local control panel. Control panel shall be housed in a NEMA 4X enclosure and shall include:
 - a. 3-pole disconnect switch and circuit breaker
 - b. Control power on-off switch
 - c. Indicator lights:
 - i. Control power (1)
 - ii. Motor run (2)
 - iii. Heater Power on (1)
 - iv. Holding Tank Level (2) – low/low and high/high
 - d. Start-stop push buttons for motors
 - e. Motor starter for FOG pump
 - f. Skimmer speed adjustment

- g. Relays for level switches
- h. Control power transformer with fused primary and secondary

2.06 PAINTING/FINISHING

- A. Unit shall be painted in accordance with Specification Section 09900

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install in accordance with the drawings and the manufacturer's instructions.
- B. Special installation instructions (sequencing, relation to other equipment, etc.

3.02 TESTING

- A. All components shall be assembled and shop tested prior to shipment. Documentation of shop testing shall be provided with unit. All components shall be checked for anchor bolt hole alignment and fit. Powered components shall be assembled and powered up to ensure proper alignment and function. Tanks shall be checked for leaks. Control panel shall be powered up and operated to ensure proper function.

3.03 STARTUP

- A. Provide startup services in accordance with Specification Section 01665
- B. Startup checkout procedures, operator training

3.04 SPARE PARTS

- A. The following spare parts shall be furnished with equipment:
 - a. Two (2) bearing assemblies for skimmer take-ups
 - b. Two (2) collector chain sprockets
 - c. One (1) replacement skimmer drive chain
 - d. One (1) set replacement neoprene wiper blades

END OF SECTION