



DEPARTMENT OF PURCHASING AND CONTRACTS

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AMENDMENT NO. 1

TO

CONTRACT NO. 21-RG0055/PH

FOR

**ENGINEERING SERVICES FOR GLEN WATER RECLAMATION FACILITY
DENITRIFICATION AND PLANT UPGRADES**

The following changes are hereby made a part of the Contract Documents for the **CONTRACT NO. 21-RG0055/PH – ENGINEERING SERVICES FOR GLEN WATER RECLAMATION FACILITY DENITRIFICATION AND PLANT UPGRADES**, located in Hernando County, as fully and completely as if the same were fully set forth therein:

1. Addition of Task 4 and Task 5 to executed contract.
2. All other terms and conditions shall remain the same.

JONES EDMUNDS

BOARD OF COUNTY COMMISSIONERS
HERNANDO COUNTY

Stanley F. Ferreira, Jr.
Stanley F. Ferreira, Jr. (Sep 20, 2023 15:50 EDT)

Carla Rossiter-Smith 10/20/23

Authorized Signature

Carla Rossiter-Smith
Chief Procurement Officer, Hernando County

Bloomberg 9/20/2023

Date Issued: 10/10/23

August 2, 2023

Jared Waring, PE – Project Manger
Hernando County Utilities Department
15365 Cortez Boulevard
Brooksville, Florida 34613

RE: Hernando County Utilities
Contract Amendment No. 1 – Additional Design Services for Centrifuge and
Vacuum Truck Dump Station Improvements and Electrical Service Upgrades
Project: Glen Water Reclamation Facility Denitrification and Plant Upgrades
PSA No. 21-RG0055-PH
PO No. 22000634
Jones Edmunds Opportunity/Project Nos.: 95144-142-23/08375-059-01

Dear Mr. Waring:

Based on discussions with the County, Jones Edmunds has provided the following proposal for Contract Amendment No. 1 (CA1) to the Hernando County Professional Services Agreement (PSA) No. 21-RG0055-PH, Glen Water Reclamation Facility (WRF) Denitrification and Plant Upgrades. These services will amend Task 4 – Final Design and Bidding Services and Task 5 – Construction-Phase Services of the Contract. The services proposed were not a priority during the original scoping process but have become a priority for the County.

TASK 4.1 – CA1 ADDITIONAL FINAL DESIGN AND BIDDING-PHASE SERVICES

This Scope of Services includes three additional final design and bid-phase tasks requested by the County as follows:

- Design a Centrifuge Addition to the Existing Dewatering Building.
- Evaluate Plant Water, Feed Piping, Drains, and Pump Station Improvements.
- Design a Vacuum Truck Dump Station Facility.

The Subconsultant services related to this work include:

- Survey (dewatering building and site)
- Structural (centrifuge addition, dewatering building, vacuum dump station facilities, new switchgear building)

- Electrical and Instrumentation and Control (I&C) (WRF electrical service upgrades and switchgear building addition, electrical and I&C for centrifuge, vacuum dump station, and plant drain pump station).

The work for each task is described below. We have split the design tasks into 4.1A and 4.1B for cost tracking.

4.1A DESIGN A CENTRIFUGE ADDITION TO EXISTING DEWATERING BUILDING

Jones Edmunds will design a new stationary-mount Centrisys decanter centrifuge Model No. CS26-4 2PH (with a hydraulic back drive designed for 200- to 400-gallon-per-minute (gpm) sludge feed rate and 3,000-pound per hour (lb/hr) dry solids loading at 1.5-percent total solids feed concentration) for permanent installation into the existing metal building. The existing mobile centrifuge will be moved to the Airport Subregional WRF. This will expand the sludge-dewatering capacity at both facilities. The centrifuge dewatering system includes the following equipment and I&C:

- One centrifuge (125 horsepower [Hp]).
- One hydraulic back drive motor (40 Hp).
- One progressive cavity feed pump (25 Hp).
- One sludge flow meter.
- One polymer feed system (0.5 Hp).
- One dewatered cake transport conveyor (5 Hp).

All electrical equipment greater than 1 Hp will operate on 480-volt/60-hertz/three-phase (480V/60Hz/3Ph) power. The dewatering control panel furnished with the centrifuge package will be constructed of Type 304 stainless steel NEMA 4X and will provide all I&C and interlocks necessary for operating the centrifuge and ancillary equipment. The new connected load for the system will be 350-amp, 480V/60Hz/3Ph power.

Adding the centrifuge and related equipment requires increasing the power service to the WRF. The Electrical subconsultant (EMI) will provide upgraded power service to the WRF to accommodate the new centrifuge improvements, the current 3.0-million-gallon-per day (MGD) plant upgrades, and the future expansions to 4.5 and 6.0 MGD. This includes service for the switchgear addition, supervisory control and data acquisition (SCADA) system modifications for the switchgear, and a future second plant generator.

The Structural subconsultant (Wekiva) will provide concrete foundation/supports for the centrifuge. A self-supporting beam crane with a trolley hoist will be designed to allow removal of the centrifuge scroll, drive motor, and hydraulic pump for the back drive and related equipment for maintenance and repairs.

The new centrifuge will require upgraded plant water feed piping for flush water for the feed piping, conveyor drain, and upgraded drain system for the clean-in-place flush-water flow

rate of 150 to 200 gpm for 20 minutes @ 45- to 60-pound-per-square-inch (psi) feed pressure, including a centrate flow of 160 to 320 gpm.

The new stationary-mount centrifuge will be configured to allow conveyor truck loading, operations staff maintenance and operation access, required walkways, handrails, I&C panels, and WRF SCADA system connection for remote monitoring, control, and system automatic and emergency shutdown. Building modifications are assumed not to require major structural modifications to accommodate the new system.

Supplemental equipment for the centrifuge dewatering system to be reviewed with County staff include the following:

- Additional sludge grinder before the centrifuge or progressive cavity feed pump.
- A wash water booster pump for flush water.
- Platforms and railings as required or requested.

4.1A EVALUATE PLANT WATER, FEED PIPING, DRAINS, AND PUMP STATION IMPROVEMENTS

Adding the vacuum truck dump station with the large-capacity hose bibs and the larger centrifuge dewatering system requires higher flush-water volumes and polymer makeup water to evaluate the plant water system feed piping size and plant pressure to provide clean-in-place flush water centrifuge and cake conveyor, makeup water for the polymer feed system, and wash-down water for the vacuum truck dump station bays.

Jones Edmunds will evaluate the existing buried ductile iron piping from the sludge digestors to the centrifuge feed pump and confirm that sufficient flow and net-positive suction head are available for the new flow rate of 400 gpm compared to the net-positive suction head required for the progressive cavity feed pump from the digester to the centrifuge. Increased pipe size may be required to accommodate the higher flow rate to the centrifuge.

We will evaluate the plant drain gravity sewer piping from the dewatering building with higher centrate and flush water flows, the new vacuum truck dump station facility flows, and the higher supernatant flows from the additional new sludge digestors to confirm that sufficient capacity is available to process additional flows without backup and on-site sewer overflow. We will provide recommendations and design improvements (as needed).

We will also evaluate process mechanical, structural, electrical, and I&C improvements related to the plant drain pump stations (as required).

4.1B DESIGN A VACUUM TRUCK DUMP STATION FACILITY

The County provided Jones Edmunds with the proposed site location, a conceptual layout, a demolition plan, and a site restoration concept for the grease bed and drying bed to be demolished, the proposed Vacuum Truck Dump Station building plan and sections with two drying beds equipped with steel strainer plate details, and the dried material storage area.

All areas are to be enclosed in a steel building with a concrete floor sloped for drainage and drainage sumps for draining excess decant back to the plant drain pump station.

DESIGN DOCUMENT SUBMITTALS

Jones Edmunds will furnish the labor, materials, and engineering services associated with producing and submitting drawings and specifications for the 60%, 90%, 100%, and Final Bid Documents for the proposed project work, as described below.

60% DESIGN TASKS AND DOCUMENTS

1. Conduct a kickoff and site meeting with staff to review the following:
 - a. Building survey (by Coastal) to locate walls, bollards, floor drains, process piping and drain connections, plant water connections, electrical and I&C connections, garage and door openings, height to underside of roof, lighting heights, roof beams and related items to coordinate for installing the proposed centrifuge system, piping, electrical, and I&C into the existing structure.
 - b. Layout and configuration of centrifuge including feed pump, discharge conveyor, overhead bridge crane, and electrical feed and control panels.
 - c. Structural mounting for the centrifuge, miscellaneous metals, walkways, stairs, and overhead bridge crane.
 - d. Electrical upgrades to the centrifuge building and WRF with new switchgear and electrical building.
 - e. Function and layout of the vacuum truck dump station including the size of trucks (length, width, and height), maximum height to tilt and dump, and operation and cleaning of strainers. Discussions will include the needs of the building including electrical power and outlets, lighting, yard hydrants with hose bibs and reels, etc., and the structural design including pre-engineered metal building, cast-in-place concrete floors and building foundation, pipe bollards and miscellaneous metals including the steel strainers for allowing the liquid to drain from the vacuum truck dump.
 - f. Existing plant gravity drain system and additional flows from aerobic digester supernatant, larger centrifuge centrate flow, and in-place flush water and flows from vacuum truck drying beds and hose wash down.
2. Update the Basis of Design Report (BODR) with additional WRF treatment process items.
3. Prepare 60% design plans and specifications (process, civil, mechanical, electrical, structural, and I&C) for the additional scope items listed above.
4. Incorporate the new 60% drawings and specifications into the existing 60% drawings and specifications for the County's review. An electronic copy will be provided in Adobe Acrobat .pdf format.

5. Prepare a 60% opinion of probable construction cost and submit it to the County for review.
6. Meet with the County to review the updated 60% design documents.

90% DESIGN TASKS AND DOCUMENTS

1. Prepare 90% design plans and specifications (process, civil, mechanical, electrical, structural, and I&C), incorporating the County's comments from the 60% design review.
2. Submit four copies of the 90% design plans and specifications to the County to review.
3. Prepare a 90% opinion of probable construction cost and submit to the County to review.
4. Meet with the County to review the 90% design documents.

100% DESIGN TASKS AND DOCUMENTS

1. Prepare 100% plans and specifications, incorporating the County's comments from the 90% design review.
2. Submit four copies of the 100% design plans and specifications to the County to review. An electronic copy will also be provided in Adobe Acrobat .pdf format.
3. Submit eight copies of the 100% design plans to the County for the building permit application.
4. Prepare a 100% opinion of probable construction cost and submit it to the County to review.
5. Meet with the County to review the 100% design documents.

BIDDING-PHASE SERVICES

Jones Edmunds and our structural and electrical subconsultants will address Contractor questions and prepare addenda associated with the additional scope items.

TASK 5.1 – CA1 ADDITIONAL CONSTRUCTION-PHASE SERVICES

During construction Jones Edmunds and our structural and electrical subconsultants will review the additional shop drawings and answer Requests for Information (RFIs) associated with the additional Scope of Services. We will prepare Record Drawings based on the Contractor-supplied record drawings. The fee breakdown for this Task is split into 5.1A and 5.1B to match the design tasks 4.1A and 4.1B.

SCHEDULE UPDATE (IN CALENDAR DAYS)

Jones Edmunds will begin work on the additional Scope of Services items to the Glen WRF on receiving approval and the Notice to Proceed. The updated schedule for this project to complete the Bid Documents and FDEP permitting assumes that the additional feature will be incorporated into the existing design documents. The anticipated schedule below will complete the project's bid documents in 2023 assuming a NTP in July 2023. The exact submittal and meetings dates will be based on a mutual agreement between the County and Jones Edmunds. The exact dates will be based on the approval of previous step and review times needed.

Anticipated Days After NTP

Site Meeting with County on Additional Work	14
Update Draft BODR with Additional Equipment and Facilities	21
Conduct BODR and FDEP Permit Package Review Meeting with County	30
Submit FDEP Permit Package and BODR to FDEP	45
Submit ERP to FDEP for Review and then to Agency	45
Update 60% Design Drawings and Specifications	70
Complete 90% Design Drawings and Specifications	100
Complete 100% Design Drawings and Specifications	120
Complete Bid Drawings and Specifications	140

ASSUMPTIONS AND EXCLUSIONS

1. Permitting services beyond those specifically included in this Scope of Services are excluded. The original scope of work includes completing an FDEP Substantial Modification and Permit Renewal for the Glen WRF, and a Facility ERP.
2. Developing and submitting a Maintenance of Traffic (MOT) Plan is excluded from this Scope of Services. The MOT Plan will be developed and submitted by the Contractor once the project is awarded for construction.
3. All permit fees, plan review fees, or other regulatory fees, including but not limited to the FDEP ERP and County permits, are excluded from this Scope of Services and are assumed to be paid directly by the County.
4. This scope of services does not include a collection system action plan. Based on our understanding of the recent FDEP rulemaking, we assume that the FDEP will not require a collection system action plan for a permit modification.
5. Schedule impacts due to permitting requirements may occur and are beyond our control.
6. This Scope of Services is for work within County rights-of-way (ROWs) or County-owned property only (including temporary easements). Acquisitions of additional easements or ROWs are excluded from this Scope of Services.
7. The County will coordinate all internal stakeholders and invite them to meetings.

8. The schedule above is based on receiving County review comments within 14 calendar days of receipt of the deliverable.
9. All drawings and specifications will be prepared in English units.
10. Front-end documents will be Hernando County standard documents, EJCDC Standard General Conditions, and Hernando County Supplemental Conditions with attachments.
11. Technical specifications will be developed using Jones Edmunds' standard 16-division CSI format.
12. National Pollutant Discharge Elimination System (NPDES) and building permits for construction activities are the responsibility of the Contractor and are excluded from this proposal.

COMPENSATION

Jones Edmunds proposes to provide the additional services detailed above on a lump-sum basis in accordance with PSA No. 21-RG0055-PH, for the Glen WRF Denitrification and Plant Upgrades Project, for \$245,130. Invoices will be based on a percent-complete basis by Task. Jones Edmunds will submit invoices to the County monthly. Exhibit B, attached, provides a man hour breakdown by Task.

TASK	Labor Effort and ODCs	Subconsultants	TOTAL
Task 4.1 – CA1 Additional Final Design and Bidding Phase Services	\$138,870	\$65,984	\$204,854
<i>SubTask 4.1A</i>	\$107,500	\$57,886	\$165,386
<i>SubTask 4.1B</i>	\$31,370	\$8,098	\$39,468
Task 5.1 – CA1 Additional Construction- Phase Services	\$32,340	\$7,936	\$40,276
<i>SubTask 5.1A</i>	\$27,480	\$5,821.50	\$33,302.50
<i>SubTask 5.1B</i>	\$4,860	\$2,114.50	\$6,974.50
TOTAL – Contract Amendment No. 1 (Lump Sum)	\$171,210	\$73,920	\$245,130
Original Contract Not-to-Exceed Fee	\$993,735	\$368,781	\$1,362,516
Revised Contract Not-to-Exceed Fee	\$1,164,945	\$442,701	\$1,607,646

As always, we appreciate this opportunity to serve the County. If you have any questions or comments call me at (813) 263-2204 or email at tfriedrich@jonesedmunds.com.

Sincerely,

A handwritten signature in black ink, appearing to read 'Thomas W. Friedrich', with a stylized, cursive script.

Thomas W. Friedrich, PE, BCEE
Project Manager/ Senior Consultant/ VP
324 S. Hyde Park Avenue, Suite 250
Tampa, Florida 33606

XC: Ron Patel, PE – Utilities Engineering Manager, Hernando County
Alisa Pike – Procurement Coordinator, Hernando County
Brian Icerman, PE– Managing Director, Jones Edmunds
Sean Menard, PE, CDT, ENV SP, Assoc. DBIA – Design Task Leader, Jones Edmunds

CONTRACT AMENDMENT NO. 1
CONTRACT No. 21-RG0055/PH - Engineering Services for Glen Water Reclamation Facility
EXHIBIT "B" TASK FEE QUOTATION PROPOSAL

Task Number	Task Name	Friedrich Project Officer \$250		Isenman/Keller Project Officer \$750		Menard Senior Project Manager \$180		Hornath/Holmes/Piercon Senior Engineer \$195		Lio Engineer \$110		Klement/Madison Senior CADD Design \$100		Fiacchi Construction Admin \$110		Kearns/Vesene Senior Admin Assistant \$80		Schmid Senior Technical Editor \$120		Total Labor Costs \$		Subcontractor Fee \$		Total Task Fee \$		Total Labor Hours hrs.		Avg Labor Rate \$/hr.	
		Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost	Hours	Cost
4.1A	CA1 Additional Final Design (60%, 90%, Final) & Bidding Phase Services	41	\$10,250	7	\$1,750	142	\$25,560	146	\$28,470	288	\$31,680	283	\$28,300	18	\$1,980	68	\$7,040	32	\$3,840	\$138,870	\$65,984	\$204,854	1045	\$265					
	SubTask Total	33	\$8,260	6	\$1,600	104	\$18,720	114	\$22,230	240	\$26,400	202	\$20,300	14	\$1,540	68	\$5,440	28	\$3,120	\$107,500	\$57,488	\$168,988	808	\$203.04					
	60% Design Drawings	16	\$4,000	3	\$750	60	\$10,600	64	\$12,480	124	\$19,940	112	\$11,200	6	\$660	28	\$2,240	12	\$1,440	\$57,210	\$0	\$57,210	425	\$134.61					
	90% Design Drawings	10	\$2,500	1	\$250	24	\$4,320	32	\$6,240	88	\$17,480	51	\$5,100	5	\$550	18	\$1,440	6	\$720	\$28,600	\$0	\$28,600	215	\$133.02					
	100% Design Drawings	6	\$1,500	1	\$250	18	\$3,240	12	\$2,340	40	\$4,400	32	\$3,200	3	\$330	18	\$1,440	4	\$480	\$17,180	\$0	\$17,180	134	\$128.21					
	- Site Work, Civil and Stormwater (Coastal)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$0	\$5,000	\$5,000	0						
	- Structural (Wet/dry)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$11,300	\$11,300	0							
	- Electrical I&C, SCADA		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$41,036	\$41,036	0							
	Bidding Phase Services	1	\$250	1	\$250	2	\$360	6	\$1,170	8	\$880	8	\$800		\$0	4	\$320	4	\$480	\$4,610	\$0	\$4,610	24	\$192.65					
	- Structural (Wet/dry)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$550	\$550	0							
SubTask Total	8	\$2,000	1	\$250	38	\$6,840	32	\$5,240	48	\$5,280	80	\$8,000	4	\$440	20	\$1,600	6	\$720	\$37,370	\$6,098	\$43,468	237	\$183.36						
4.1B	60% Design Drawings	4	\$1,000	1	\$250	20	\$3,600	18	\$3,120	32	\$3,520	48	\$4,800	2	\$220	12	\$960	4	\$480	\$17,650	\$0	\$17,650	129	\$128.14					
	90% Design Drawings	2	\$500		\$0	12	\$2,160	10	\$1,650	12	\$1,320	24	\$2,400	1	\$110	6	\$480	2	\$240	\$9,190	\$0	\$9,190	69	\$132.75					
	100% Design Drawings	2	\$500		\$0	6	\$1,080	6	\$1,170	4	\$440	6	\$800	1	\$110	2	\$160		\$0	\$4,290	\$0	\$4,290	29	\$146.90					
	- Structural (Wet/dry)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$7,600	\$7,600	0							
	- Electrical I&C, SCADA		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$498	\$498	0							
	SubTask Total	4	\$1,000	2	\$500	8	\$1,440	40	\$7,800	100	\$11,000	8	\$800	60	\$6,600	40	\$3,200	0	\$0	\$32,340	\$7,936	\$40,276	262	\$123.44					
5.1A	CA1 Additional Construction Phase Services	4	\$1,000	2	\$500	8	\$1,440	40	\$7,800	100	\$11,000	8	\$800	60	\$6,600	40	\$3,200	0	\$0	\$27,488	\$5,921.50	\$33,309.50	220	\$124.37					
	SubTask Total	4	\$1,000	2	\$500	8	\$1,440	40	\$7,800	100	\$11,000	8	\$800	60	\$6,600	40	\$3,200	0	\$0	\$27,488	\$0	\$27,488	220	\$124.91					
	Construction Administration	4	\$1,000	2	\$500	8	\$1,440	40	\$7,800	100	\$11,000	8	\$800	60	\$6,600	40	\$3,200	0	\$0	\$3,000	\$3,000	\$3,000	0						
	- Structural (Wet/dry)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$2,921.50	\$2,921.50	\$2,921.50	0						
	- Electrical I&C, SCADA		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$4,860	\$4,860	\$4,860	42	\$115.71					
	SubTask Total	0	\$0	0	\$0	2	\$360	4	\$780	16	\$1,760	0	\$0	12	\$1,320	8	\$640	0	\$0	\$4,860	\$2,114.50	\$6,974.50	42	\$166.06					
5.1B	Construction Administration		\$0		\$0	2	\$360	4	\$780	16	\$1,760		\$0	12	\$1,320	8	\$640		\$0	\$4,860	\$0	\$4,860	42	\$115.71					
	- Structural (Wet/dry)		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$1,800	\$1,800	\$1,800	0						
	- Electrical I&C, SCADA		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0		\$0	\$314.50	\$314.50	\$314.50	0						
	Contract Amendment Totals	45	\$11,250	9	\$2,250	190	\$27,000	186	\$36,270	388	\$42,680	291	\$29,100	78	\$8,580	128	\$10,240	32	\$3,840	\$171,210	\$73,620	\$245,130	1307	\$190.99					

SUB-TOTAL PRIME COSTS (Contract Amendment 1)	\$171,210
Subcontractor Expenses (Contract Amendment 1)	\$73,920
TOTAL COSTS (Contract Amendment 1)	\$245,130

TOTAL LUMP SUM NOT TO EXCEED COST (Change Order 1) **\$245,130**

Firm Name: <u>James Edwards & Associates, Inc.</u> Signature: <u>Stanley F. Ferreira, Jr., PE</u> President & CEO Date: <u>Aug 3, 2023</u>	Department Name: <u>1Kops</u> <u>8/4/2023</u> (Date)	Authorized Signature: <u>POLO PATEL</u> (Printed Name and Title) ENGR. SERVICES MANAGER	Chief Procurement Officer: <u>10/20/23</u> Date: <u>10/20/23</u>
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