

CCNA2018 WORK ORDER 42
AMENDMENT NO. 1
Centrate Tank Conversion

This Amendment No. 1 to Work Order Number 42 is entered into as of this ____ day of _____, 2022, pursuant to that certain Continuing Consulting Engineering Services Agreement for Professional Services entered into as of the 17th day of April, 2018, as renewed and amended as of the 18th day of May, 2021 (the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Kimley-Horn and Associates, Inc. ("Consultant").

The COUNTY has selected the Consultant to perform the professional services set forth on Exhibit A (Scope of Work), attached to this Work Order and made part hereof by this reference. The professional services will be performed by the Consultant for the fee schedule set forth in Exhibit B (Fee Schedule), attached to this Work Order and made a part hereof by this reference. The Consultant will perform the professional services within the timeframe more particularly set forth in Exhibit C (Time Schedule), attached to this Work Order and made a part hereof by this reference all in accordance with the terms and provisions set forth in the Agreement. Pursuant to paragraph 1.4 of the Agreement, nothing contained in any Work Order shall conflict with the terms of the Agreement and the terms of the Agreement shall be deemed to be incorporated in each individual Work Order as if fully set forth herein.

IN WITNESS WHEREOF, the parties hereto have executed this Work Order as of the date first written above.

CONSULTANT:

Kimley-Horn and Associates, Inc.

**BOARD OF COUNTY COMMISSIONERS
OF INDIAN RIVER COUNTY**

By:

Brian A. Good, P.E.

By:

Peter D. O'Bryan, Chairman

Print Name:

Title:

Senior Vice President

BCC Approved Date:

Attest: Jeffrey R. Smith, Clerk of Court and Comptroller

By:

Deputy Clerk

Approved:

Jason E. Brown, County Administrator

Approved as to form and legal sufficiency:

Dylan T. Reingold, County Attorney

AMENDMENT NO. 1
to
Work Order Number 42
CENTRATE TANK CONVERSION
EXHIBIT A
SCOPE OF WORK

PROJECT UNDERSTANDING

Indian River County (County) Solid Waste Disposal District (SWDD) previously authorized Kimley-Horn (Consultant) to perform engineering services related to the modification of an existing 0.5-million-gallon ground storage tank (GST) at the County's landfill such that it is suitable for storing leachate generated by the Class I municipal solid waste landfill. The project is directly related to the ongoing leachate evaporation system project (by others), which is expected to be under construction in summer 2022. The tank is necessary to serve as a surge tank for the evaporation system during normal operations.

In the process of designing the tank modifications, several challenges were encountered. The following amended Scope of Services details those challenges and the additional services necessary to deliver the final design package for the tank modifications and installation of the mixer system.

The Consultant will provide the following amended Scope of Services, as detailed below.

SCOPE OF SERVICES

Task 1: Mixing Evaluation (Lump Sum)

Once the Consultant had completed the mixer modeling and selected a jet pump mixer, quotes were obtained for use by the County in procuring the equipment. The original pricing from the vendors far exceeded the County's intended budget. Additional modifications were made to revise materials and configuration to reduce costs. In addition, several vendors were contacted to provide quotes, and all indicated that supply chain issues would result in excessive delivery times. The Consultant worked closely with multiple other vendors and contractors to identify a solution that would work in this application and meet the required schedule of the project.

Amendment No. 1 provides for the additional coordination time on the mixer procurement

Task 2: Tank Modifications (Lump Sum)

The GST was originally designed to serve the biosolids dewatering facility and store a combination of centrate from that process and leachate from the landfill. The tank has not been used in several years. The proposed tank modifications include minor crack repairs, recoating of the interior with a coating suitable for leachate storage and the installation of

mixer to prevent stagnation and solids settling. During the process of designing the modifications, the Florida Department of Environmental Protection made a determination that the original tank design would not meet the requirements for secondary containment for leachate storage.

Chapter 62-701.400 of the Florida Administrative Code requires above ground storage tanks to include secondary containment in one of several approved forms. The existing GST does not meet those requirements, and therefore requires an Alternate Procedure Approval from FDEP. The Alternate Procedure process is detailed below under Task 4: Permitting; however, the additional services related to the evaluation of the options to meet the rule are as follows:

1. Contacted various tank vendors to determine feasibility of and budget level cost estimates for the construction of a tank within a tank or new, secondary containment wall outside of existing GST.
2. Contacted vendor regarding the pricing for a new, double-walled metal tank.
3. Contacted various vendors regarding the options for installation of a liner within the existing GST (determined not to be compatible with the pre-stressed concrete tank or the mixer system that had been selected).
4. Coordination with existing tank manufacturer for structural options and construction methods that may partially meet the FDEP Rule.

Amendment No. 1 provides for additional services related to evaluating the secondary containment options for continued use of the GST.

Task 3: Piping Modifications (Lump Sum)

The piping system into the tank was originally anticipated to be designed to deliver both the typical leachate and concentrated leachate to the tank in a single pipeline. As the design progressed, SWDD staff requested several iterations of the design to allow for various operating scenarios.

An additional modification/redesign was required when SWDD requested that the alignment of the piping be revised to avoid the ongoing FPL project to underground the overhead electric lines in the center of the site.

Amendment No. 1 provides for three additional pipeline design iterations and additional valve and flow meter details related to splitting of the flows for operational flexibility.

Task 4: Permitting (Lump Sum)

As noted above, FDEP determined that the use of the GST for leachate storage would require a variance, modifications to the design to provide for secondary containment, or a request for approval of an Alternate Procedure. The Consultant evaluated these options, as follows:

1. Variance – SWDD determined that a Rule variance was not the preferred long-term option, as the intent of the Rule is to protect the environment from the spilling of

leachate into areas that may impact surface or groundwaters. Rather, SWDD determined that the Alternate Procedure with additional monitoring and spill prevention provisions would better serve the intent.

2. The Consultant evaluated the required footprint of secondary containment to meet the rule (110% of the storage capacity of the tank, or 550,000 gallons). The proximity of the existing GST to the lift station, pump manifold and electrical panels, coupled with the configuration of the proposed evaporation system and existing utilities made it prohibitive to construct the required containment. Furthermore, the Consultant reviewed original geotechnical reports and GST design documents to determine if the required vertical containment (liner or compaction below the tank) was suitable for meeting the intent of the Rule. Ultimately, the available information was not sufficient to make this determination.
3. An Alternate Procedure allows the applicant to request approval of an alternate method of meeting the intent of a given Rule. In this case, the Consultant prepared a request that identified additional monitoring, testing and tank modifications that could serve to prevent or quickly mitigate a spill or leak in lieu of constructing a physical containment structure. The Consultant will participate in several phone calls with FDEP staff, prepare supporting documents, coordinate with project teams (regarding minimum storage requirements) and SCADA consultants (regarding instrumentation and controls available to monitor for leaks) to prepare the package to be submitted to FDEP. Several follow-up meetings and a resubmittal of additional information will also be conducted.

The original Scope of Services did not anticipate a requirement for modification of the FDEP Solid Waste Operations permit; however, the requirement for the Alternate Procedure triggered the requirement. The Consultant will prepare the request for an Alternate Procedure from FDEP including supporting documentation and will assist SWDD's permitting consultant to incorporate this change into the ongoing Operations Permit Modification (by others).

Amendment No. 1 provides for these additional services associated with evaluating the secondary containment options and pursuing the Alternate Procedure request.

Task 5: Construction Phase Services (Not-to-Exceed)

No changes.

EXHIBIT B

AMENDED FEE SCHEDULE

The Consultant will provide these services in accordance with our Continuing Consulting Engineering Services Agreement for Professional Services dated May 18, 2021, by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and Kimley-Horn and Associates, Inc., (“Consultant”).

Kimley-Horn will perform Tasks 1 through 4 for the amended total lump sum fee below. Individual task amounts are informational purposes only. All permitting, application, and similar project fees will be paid directly by the County. Task 5 will be completed on a labor fee plus expense basis with the maximum amended labor fee shown below.

Task No.	Task	Original Task Fee	Amendment Fee	Revised Total Fee
Task 1	Mixing Evaluation	\$ 14,522	\$ 9,937	\$ 24,459
Task 2	Tank Modifications	\$ 7,293	\$ 6,019	\$ 13,312
Task 3	Piping Modifications	\$ 6,668	\$ 12,873	\$ 19,541
Task 4	Permitting	\$ 1,491	\$ 20,618	\$ 22,109
<i>Lump Sum Subtotal</i>		\$ 29,974	\$ 49,447	\$79,421
Task 5	Construction Phase Services	\$ 20,969	\$ 0	\$ 20,969
<i>Not-to-Exceed Subtotal</i>		\$ 20,969	\$ 0	\$ 20,969
	TOTAL FEE	\$ 50,943	\$ 49,447	\$ 100,390

Lump sum fees will be invoiced monthly based upon the overall percentage of services performed. Labor fee will be billed monthly on an hourly basis according to our then-current rates. Payment will be due per the contract terms.

ADDITIONAL SERVICES

The following services are not included in the Scope of Services for this project but may be required depending on circumstances that may arise during the execution of this project. Additional services may include, but not be limited to the following:

- Preparation of bid documents for competitive bid
- Design or execution of structural repairs to the GST
- Horizontal directional drill details

ESTIMATE FOR ENGINEERING SERVICES

PROJECT: Centrate GST Conversion												
CLIENT: Indian River County												
ESTIMATOR: JTG												
DESCRIPTION:		DIRECT LABOR (MAN-HOURS)					AMENDMENT 1			ORIGINAL		
Centrate GST Conversion		PRINC	SEN PROF	REG PROF	SEN DES/ P2	CLK	Labor Total	Dir Exp (5%)	LINE TOTAL	Labor Total	Dir Exp (5%)	LINE TOTAL
NO.	TASK											
1	Mixing Evaluation (Lump Sum)											
	Water Quality Assessment	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 1,900.00	\$ 95.00	\$ 1,995.00
	Mixing Evaluation	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 6,026.00	\$ 301.00	\$ 6,327.00
	Mixer Recommendation	16	4	24	0	4	\$ 8,044.00	\$ 402.00	\$ 8,446.00	\$ 1,966.00	\$ 98.00	\$ 2,064.00
	Cost Estimate	2	2	4	0	0	\$ 1,420.00	\$ 71.00	\$ 1,491.00	\$ 950.00	\$ -	\$ 950.00
	Summary Memorandum	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 2,016.00	\$ -	\$ 2,016.00
	Review Meeting	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 1,170.00	\$ -	\$ 1,170.00
										\$ -	\$ -	\$ -
										\$ -	\$ -	\$ -
2	Tank Modifications (Lump Sum)									\$ -	\$ -	\$ -
	Details	4	8	4	2	2	\$ 3,642.00	\$ 182.00	\$ 3,824.00	\$ 3,626.00	\$ 181.00	\$ 3,807.00
	Site visits (1) and Clarifications (4)	4	4	2			\$ 2,090.00	\$ 105.00	\$ 2,195.00	\$ 3,320.00	\$ 166.00	\$ 3,486.00
										\$ -	\$ -	\$ -
3	Piping Modifications (Lump Sum)									\$ -	\$ -	\$ -
	Design details - Leachate FM and Reclaimed FM	12	16	40	8	0	\$ 12,260.00	\$ 613.00	\$ 12,873.00	\$ 4,930.00	\$ 247.00	\$ 5,177.00
	Coordination with On-Call Contractor	0	0	0	0	0	\$ -	\$ -	\$ -	\$ 1,420.00	\$ 71.00	\$ 1,491.00
										\$ -	\$ -	\$ -
4	Permitting (Lump Sum)									\$ -	\$ -	\$ -
	Permit Application	48	12	8	8	4	\$ 16,204.00	\$ 810.00	\$ 17,014.00	\$ 720.00	\$ 36.00	\$ 756.00
	RAI (1)	8	4	2	2	2	\$ 3,432.00	\$ 172.00	\$ 3,604.00	\$ 700.00	\$ 35.00	\$ 735.00
										\$ -	\$ -	\$ -
										\$ -	\$ -	\$ -
5	Construction Services (NTE)									\$ -	\$ -	\$ -
	Structural Inspection						\$ -	\$ -	\$ -	\$ 2,270.00	\$ 114.00	\$ 2,384.00
	Site Visits (4 hrs/wk for 3 months)						\$ -	\$ -	\$ -	\$ 13,040.00	\$ 652.00	\$ 13,692.00
	Walk Throughs and Punch List						\$ -	\$ -	\$ -	\$ 2,820.00	\$ 141.00	\$ 2,961.00
	Pay Applications						\$ -	\$ -	\$ -	\$ 1,840.00	\$ 92.00	\$ 1,932.00
	TOTAL HOURS	94	50	84	20	12	\$ 47,092.00	\$ 2,355.00	\$ 49,447.00	\$ 48,714.00	\$ 2,229.00	\$ 50,943.00
	LABOR (\$/HOUR)	\$ 235	\$ 225	\$ 125	\$ 105	\$ 96	-	-	-	-	-	-
	SUBTOTAL	\$ 22,090	\$ 11,250	\$ 10,500	\$ 2,100	\$ 1,152						\$ 100,390.00

EXHIBIT C

AMENDED TIME SCHEDULE

Task 1 Deliverables: No Change
Task 2 Deliverables: Additional 4 Weeks
Task 3 Deliverables: Additional 4 Weeks
Task 4 Deliverables: Dependent on FDEP Review Times
Task 5 Duration: Additional 6 Weeks