

WORK ORDER NUMBER 2
SEGMENT 3 CELLS 1 AND 2 LANDFILL GAS SYSTEM EXPANSION
DESIGN, PERMITTING, AND BIDDING SERVICES

This Indian River County (IRC) Landfill Work Order Number 2 is entered into as of this ___ day of _____, 2020, in accordance with FS 287.055, Consultant's Competitive Negotiation Act per the Request for Qualification #2017048 for Engineering Consulting Services for Landfill Closure, Landfill Gas System Expansion, and Cell Construction, dated July 18, 2017 (referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and CDM Smith 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 A (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 Section 1 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:

CDM Smith Inc.

By: _____



Print Name: Eric J. Grotke, P.E., BCEE

Title: Vice President

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

By: _____

Susan Adams, Chairman

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

EXHIBIT A

WORK ORDER NO. 2

INDIAN RIVER COUNTY LANDFILL SEGMENT 3 CELLS 1 AND 2 LANDFILL GAS SYSTEM EXPANSION DESIGN, PERMITTING, AND BIDDING SERVICES

This Work Order No. 2, when executed, shall be incorporated in and become part of the Agreement for Consulting Services between the Indian River County Solid Waste Disposal District (SWDD) and CDM Smith Inc., (CONSULTANT), dated July 18, 2017 hereafter referred to as the AGREEMENT.

PROJECT BACKGROUND

The SWDD, the owner of the Indian River County Landfill, has requested that CONSULTANT prepare this Work Order to provide professional engineering services for the design, permitting, and bidding for the proposed expansion of the landfill gas collection (LFG) system of Class I Landfill Segment 3 Cells 1 and 2. The proposed locations of LFG header piping and vertical extraction wells after the final buildout of Segment 3 are shown on Drawing No. 27 of the 20-Year Permit Drawings dated March 2010. Due to current waste elevations, only the final LFG system expansion design for Segment 3 Cell 1 will be included in the final Contract Documents. The LFG system will be preliminarily designed and permitted so that the SWDD can more easily expand into Segment 3 Cell 2 with horizontal gas collectors when conditions are preferable in the future.

The Segment 3 LFG system was previously permitted under Construction/Operation Permit Nos: 0128769-022-SC and 0128769-023-SO and the construction of the LFG system shall be done in accordance with the approved gas management system design. This permit requires notification to the Florida Department of Environmental Protection (FDEP) before any changes to the approved design are implemented to include the proposed horizontal gas collectors into the design and permit. Since new gas extraction wells are being proposed in Segment 3 Cell 2 it is assumed that, at a minimum, a minor modification to the construction/operation permit will be required by the FDEP. Since no changes to the approved gas management system design are proposed in Segment 3 Cell 1, only a courtesy notification will be sent to the FDEP prior to construction activities.

The Scope of Services for this project are described below:

SCOPE OF SERVICES

CONSULTANT will undertake the design, permitting, and bidding of the Class I Landfill Segment 3 Cells 1 and 2 LFG system expansion located at the Indian River County Landfill. The LFG system has already been preliminarily designed and permitted in Segment 3. The permit drawings LFG system plan and details will need to be enhanced to become final design drawings suitable for bidding for construction. Also, additional horizontal collection wells will be added to the proposed design in Segment 3 Cell 2 as part of this project. Therefore, the CONSULTANT will modify/update the existing LFG system permit drawings previously prepared in 2010 by Geosyntec Consultants for the purpose of modifying the permit and bidding the project for construction.

Based on recent discussions with SWDD staff and our familiarity with the landfill site and preliminary review of the existing permit drawings, the proposed Scope of Services includes the following tasks:

TASK 1.0 - PROJECT QUALITY MANAGEMENT

Activities performed under this task consist of those generally administrative functions required to maintain the project on schedule, within budget, and that the quality of the work products defined within this scope is consistent with CONSULTANT's standards.

Task 1.0 includes the specific activities identified below:

Subtask 1.1 - Project Update Meetings

CONSULTANT's project manager will prepare for status meetings throughout the life of the project. It is estimated that meetings will be held on the average of once a month for four months (4 project update meetings total).

Subtask 1.2 - Quality Technical Reviews

CONSULTANT maintains a quality management system (QMS) on all of its projects. One formal quality technical review committee (TRC) meeting has been budgeted for and will be conducted at the 60 percent completion stage of the project. SWDD's representatives will be invited to attend and participate in the TRC meeting.

Deliverables:

- A Complete set of draft Contract Documents for review (electronic PDFs of the drawings and technical specifications) at 60 percent and the 100 percent design level.

Subtask 1.3 - Final Design Review

CONSULTANT will prepare and submit a complete set of Contract Documents (drawings and technical specifications as electronic PDFs) to SWDD for review at the 100 percent (final) completion stage. CONSULTANT will also perform a final comprehensive design review at the 100 percent milestone to perform final quality checks and to confirm that the proposed design meets the requirements of SWDD. CONSULTANT will prepare for and attend one meeting with SWDD staff to review comments on the 100 percent design drawings and technical specifications. CONSULTANT will incorporate SWDD's written comments, prepare the final Contract Documents (Issued for Bid), and submit two hard copies and electronic PDFs of the design drawings and technical specifications to the SWDD.

Deliverables:

- Final Contract Documents (Issued for Bid) – two signed and sealed hard copies and electronic PDFs.

TASK 2.0 - MEETINGS AND DATA COLLECTION

This task focuses on obtaining the necessary preliminary information to prepare detailed engineering plans and construction specifications.

Task 2.0 includes the specific activities identified below:

Subtask 2.1 - Kickoff Meeting

CONSULTANT will organize a kickoff meeting with SWDD to discuss the proposed Segment 3 Cells 1 and 2 landfill gas system expansion. SWDD shall further define their requirements of the project. CONSULTANT will prepare and distribute meeting minutes.

Subtask 2.2 - Previous Design Due Diligence

CONSULTANT will collect and review available existing data and information already obtained including as-built/record drawings, site surveys, previously performed design calculations, analysis, drawings, permits and applications, and reports that were prepared by SWDD’s previous engineering consultant and their subconsultants for the landfill gas system. Upon review of available existing data, CONSULTANT will prepare a data request letter for any additional data that is needed and submit it to SWDD for assistance with obtaining the additional data, if needed. If the requested additional data is not available, CONSULTANT will provide a list to SWDD to determine the appropriate manner to obtain it, which may include an amendment to this Work Order.

Deliverables:

- Kickoff meeting minutes.
- Data request letter, if needed.

TASK 3.0 - FINAL DESIGN, DRAWINGS, SPECIFICATIONS, AND OPINION OF PROBABLE CONSTRUCTION COST PREPARATION

This task consists of performing final design and developing Contract Documents (drawings and specifications) in accordance with the design requirements set forth in Chapter 62-701, F.A.C., to procure and construct the project.

Task 3.0 includes the specific activities identified below:

Subtask 3.1 - Design Drawing Preparation

CONSULTANT will prepare detailed contract drawings for the expansion of the Segment 3 Cells 1 and 2 LFG system. Below is a preliminary list of drawings required to permit and construct this project. Note that the Permit Drawings submitted for the permit modification will be those that require changes, or are new, due to the proposed horizontal collectors in Segment 3 Cell 2. The Contract Drawings prepared for bidding will be those related to Segment 3 Cell 1.

Permit Drawings:

Drawing No. ¹	Drawing Title	New Revision No.
1	Title Sheet	3
27	Conceptual Gas Management System Plan	1
31	Gas Management System Details IV	1
37	Segment 3 Cell 2 Horizontal Collector Layout	New Drawing

Note:

¹ Assumes that these are the only approved permit drawings that would require modification to incorporate horizontal collectors in Segment 3 Cell 2. The drawing numbers are in reference to the currently approved 20-year permit package. (20-Year Permit Drawings dated March 2010).

Contract Drawings (for Segment 3 Cell 1):

Sheet No.	Title
General	
G-0	Cover (Including Location Map)
G-1	General Notes/Symbols/Legend/Index of Sheets
G-2	Existing Conditions/Limits of Construction/Horizontal Control Plan
Civil	
C-1	Landfill Gas System Plan
C-2	Compressed Air and Condensate Force Main Plan
CD-1	Landfill Gas System Details I
CD-2	Landfill Gas System Details II
CD-3	Landfill Gas System Details III
CD-4	Landfill Gas System Details IV (if required)

Subtask 3.2 - Specifications

CONSULTANT will prepare specifications, utilizing the EJCDC/CSI format (50-Division), which will consist of written technical descriptions of materials, equipment, construction systems, standards and workmanship as applied to this project. Specifications for construction will include the LFG system components, and other applicable items. CONSULTANT will include incorporating the construction permit conditions, if any, into the specifications prior to award of contract.

Subtask 3.3 - Front-End Documents

SWDD will supply the Front-End Documents and CONSULTANT will edit them to provide the project specific information needed to bid the project. CONSULTANT will work with SWDD to develop owner direct purchase language to be included in the front-end documents, if necessary.

Subtask 3.4 - Opinion of Probable Construction Cost (OPCC)

CONSULTANT will prepare an OPCC at the 100 percent completion stage and submit the estimate to SWDD for review. The estimate will be based on generally accepted costs for this type of work.

Deliverables:

- 60 and 100 percent drawings (electronic PDF and AutoCAD format, including associated x-refs) and technical specifications (electronic PDF).
- Final Contract Documents Package (two signed and sealed hard copies and electronic PDFs of the drawings and technical specifications).
- Opinion of probable construction cost at 100 percent design (electronic PDF).

TASK 4.0 - PERMITTING ASSISTANCE

CONSULTANT will prepare and submit a minor modification to Construction/Operation Permit Nos: 0128769-022-SC and 0128769-023-SO to include the proposed Segment 3 Cell 2 horizontal gas collectors into the design and permit.

Activities performed under this task consist of those functions required to prepare the application for a

minor modification to the Construction/Operation Permit (Permit Nos: 0128769-022-SC and 0128769-023-SO), participate in a pre-application meeting with FDEP, and respond to one of FDEP's requests for additional information (RAI). Also included are preparation of the notifications required by the operations permit.

Task 4.0 includes the specific activities identified below:

Subtask 4.1 - Pre-Application Meeting

CONSULTANT will attend one pre-application meeting with FDEP staff via a teleconference. The purpose of the meeting will be to communicate with FDEP regarding the proposed contents of the permit application submittal package.

Subtask 4.2 - Permit Application

CONSULTANT will prepare and submit to FDEP the application for a minor modification to the Construction/Operation Permit required by Chapter 62-701.320, F.A.C to include the horizontal gas collectors in Segment 3 Cell 2 into the design and permit.

Subtask 4.3 - RAIs

CONSULTANT will respond to one RAI from FDEP.

Subtask 4.4 - Construction Notification

CONSULTANT will prepare and submit a courtesy notification to the FDEP prior to construction of the landfill gas system expansion in Segment 3 Cell 1.

Deliverables:

- Segment 3 Cell 2 LFG Gas system permit modification application
- Design drawings to support permit modification.

TASK 5.0 - BIDDING ASSISTANCE

In this task, CONSULTANT will assist SWDD in obtaining bids for the construction of the project, assist SWDD in evaluating the bids and in assembling and awarding the contract, and will arrange and preside over a pre-bid conference.

Task 5.0 includes the specific activities identified below:

Subtask 5.1 -

CONSULTANT will provide a Contract Documents Package in electronic PDF format suitable for distribution to bidders, coordinate the advertisement of the bid, respond to communications from Contractors, attend a pre-bid conference, and assist with the issuance of up to two addenda. SWDD will advertise for bids and distribute documents to the plan holders.

Subtask 5.2 -

CONSULTANT will attend one bid opening, evaluate bids, and recommend a bidder for award of contract to SWDD. The bidding phase of the project terminates when an assumed Notice of Award is issued to a Contractor.

TASK 6.0 - ADDITIONAL ENGINEERING SERVICES

At the request of the SWDD, CONSULTANT will perform additional engineering services for work expressly excluded from this Work Order as noted in the Assumptions above or requested by the SWDD during the project.

Additional Engineering Service may include, but not be limited to, preparation of additional design modifications, assistance in preparing documents not expressly included in the above tasks, environmental assessments, additional permitting, or any other extended/additional engineering services. A not-to-exceed amount of \$20,000 is established for services related to this task.

ASSUMPTIONS

1. SWDD will be responsible for all permit application fees.
2. The FDEP Class I Landfill construction/operation permit will only require a minor modification to include the horizontal gas collectors for Segment 3 Cell 2.
3. Since no changes to the approved gas management system design are proposed in Segment 3 Cell 1, only a courtesy notification will be sent to the FDEP prior to construction activities.
4. The LFG system expansion will not require a modification to the facility Title V Air Operation Permit.
5. CONSULTANT has based this proposal upon utilization of previously permitted design documents. In the event that the CONSULTANT is unable to utilize these documents, CONSULTANT reserves the right to request additional compensation in order to obtain and or complete the required scope of services.
6. Unless otherwise stated in the tasks, all previously performed design calculations, analysis, drawings, and reports that were prepared by Geosyntec Consultants or their subconsultants as part of, and/or referenced in, the 20-Year Renewal Permit Application and Drawings (dated March 2010 and September 2015), are complete, sufficient, accurate, and do not require any revisions/corrections. If CONSULTANT determines that the previously prepared design calculations, analysis, drawings, and reports are incomplete or require revisions/corrections, CONSULTANT reserves the right to seek additional compensation.
7. This Work Order does not include engineering services during construction.
8. CONSULTANT reserves the right to seek additional compensation for work performed, as agreed to by SWDD, beyond what is described in this Work Order.
9. SWDD will provide the survey files, including CADD and 3-D surface. It is assumed that these existing survey files will be sufficient. If it is determined that additional survey is needed during the design, CONSULTANT reserves the right to seek additional compensation.
10. If requested, SWDD will provide all available existing data, as-built/record drawings, site surveys, previously performed design calculations, analysis, drawings, permits and applications, and reports.
11. SWDD will be responsible for providing information related to which vertical extraction wells will receive pumps in the Segment 3 Cell 1 design.

PROJECT SCHEDULE

It is anticipated that the Project will take approximately 6 months to complete, starting within two weeks of receipt of a formal notice to proceed (NTP). The estimated schedule by task is shown in **Table 1**. CONSULTANT will prepare an updated detailed schedule within the first thirty (30) calendar days after NTP.

The following project schedule has been developed based on the NTP:

Table 1

Design/Permitting/Bidding*	Schedule (Calendar Days From NTP)
Begin Design	14 days
60-Percent Design Submittal to SWDD	44 days
TRC Meeting	51 days
100% Design Submittal to SWDD	81 days
100% Design Review	88 days
Final Design (Issued for Bid) Submittal to SWDD	102 days
Submit Construction/Operation Permit Modification Application	58 days
Receive Updated Construction/Operation Permit	118 days
Advertise for Bids	133 days
Receive Bids	163 days
Award Contract	193 days

Note:

*Project schedule will be dependent on permitting and procurement activities. Schedule will be adjusted accordingly.

PAYMENT AND COMPENSATION

Compensation for Work Order No. 2 described herein shall be made in accordance with the Contract between SWDD and CONSULTANT. The lump sum amount of this Work Order for Tasks 1 through 5 is \$179,810; the not to exceed amount for Task 6 is \$20,000; the total not to exceed contract amount is **\$199,810**. CONSULTANT will submit monthly invoices for services rendered based on the percentage of work for each task completed for Tasks 1 through 5. Task 6 will be invoiced based on a percentage of work complete as authorized by SWDD.

For invoice purposes only, the value of each task in this Work Order No. 2 is as shown in the **Table 2**.

Table 2

TASK VALUE FOR INVOICE PURPOSE – WORK ORDER NO. 2		
TASK	DESCRIPTION	VALUE
1.0	Project Quality Management	\$26,990.00
2.0	Meetings and Data Collection	\$13,935.00
3.0	Final Design, Drawings, Specifications, and Opinion of Probable Construction Cost Preparation	\$96,180.00
4.0	Permitting Assistance	\$24,375.00
5.0	Bidding Assistance	\$18,330.00
	Total Work Order LUMP SUM AMOUNT	\$179,810.00
6.0	Additional Engineering Services – Not to Exceed	\$20,000.00
	TOTAL WORK ORDER NO. 2 NOT TO EXCEED AMOUNT	\$199,810.00

EXHIBIT B-1

WORK ORDER NO. 2

INDIAN RIVER COUNTY LANDFILL
 SEGMENT 3 CELLS 1 AND CELL 2 LANDFILL GAS SYSTEM EXPANSION
 DESIGN, PERMITTING, AND BIDDING SERVICES

	Sr. Officer	Associate	Principal	Senior Prof	Prof I	Sr. Technical Expert	Senior Support Services	Staff Support Services (Drafting)	Document Control Specialist	Hours By Task
Task 1.0 – Project Quality Management	10	12	24	36	10	28	3	0	10	133
Task 2.0 – Meetings and Data Collection	4	3	12	26	7	14	2	0	3	71
Task 3.0 – Final Design, Drawings, Specifications, and Opinion of Probable Construction Cost Preparation	0	12	46	186	72	48	92	120	44	620
Task 4.0 – Permitting Assistance	2	2	14	62	28	12	5	8	14	147
Task 5.0 – Bidding Assistance	3	4	16	34	22	14	2	0	10	105
Task 6.0 – Additional Engineering Services										
Total	19	33	112	344	139	116	104	128	81	1,076

EXHIBIT B-2

BUDGET

PROJECT: INDIAN RIVER COUNTY LANDFILL
SEGMENT 3 CELLS 1 AND 2 LANDFILL GAS SYSTEM EXPANSION
DESIGN, PERMITTING, AND BIDDING SERVICES

DESCRIPTION: As Outlined in the Scope of Services, Exhibit A.

REFERENCE: Agreement between Indian River County Solid Waste Disposal District and CDM
Smith Inc.

<u>Labor Category</u>	<u>Hours</u>	<u>Rate</u>	<u>Labor</u>
Sr. Officer	19	\$240	\$4,560
Associate	33	\$215	\$7,095
Principal	112	\$210	\$23,520
Senior Professional	344	\$175	\$60,200
Professional I	139	\$120	\$16,680
Sr. Technical Expert	116	\$235	\$27,260
Senior Support Services	104	\$130	\$13,520
Staff Support Services (Drafting)	128	\$95	\$12,160
Document Control Specialist	81	\$90	\$7,290
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TOTAL HOURS	1,076		
TOTAL LABOR COST			\$172,285
OTHER DIRECT COSTS (Field vehicle, field supplies, field safety equipment, etc.)			<u>\$7,525</u>
TOTAL LUMP SUM AMOUNT FOR WORK ORDER NO. 2			<u>\$179,810</u>
NOT TO EXCEED AMOUNT FOR TASK 6			\$20,000
TOTAL AMOUNT FOR WORK ORDER NO. 2			<u>\$199,810</u>