

WORK ORDER 17

Segment 3, Cell 1 Top of Waste Grades Evaluation

This Work Order Number 17 is entered into as of this ____ day of October, 2022, pursuant to that certain Continuing Consulting Engineering Services Agreement dated April 17, 2018, renewed and amended as of May 18, 2021, (collectively referred to as the "Agreement"), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida ("COUNTY") and Geosyntec Consultants, 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), 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:

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

By: _____

By: _____

Peter D. O'Bryan, Chairman

Print Name: Jim Langenbach, PE

Title: 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

28 September 2022

Mr. Himanshu Mehta, P.E., Managing Director
Solid Waste Disposal District
Indian River County
1325 74th Avenue SW
Vero Beach, Florida 32968

**Subject: Proposal for Engineering Services
Evaluation of Design and Current Waste Grades Segment 3, Cell 1
Class I Landfill of Indian River County Landfill.
Vero Beach, Indian River County, Florida**

Dear Mr. Mehta:

Geosyntec Consultants, Inc. (Geosyntec) is pleased to submit this proposal to Indian River County (IRC), Solid Waste Disposal District (SWDD) to provide engineering services to support waste filling operations at Segment 3, Cell 1 of the Class I Landfill at the IRC Landfill (IRCL) facility. The proposal was prepared in response to a request from Mr. Himanshu Mehta, P.E., Managing Director of SWDD during a videoconference call on September 9, 2022, with Mr. Ron T. Jones, Assistant Managing Director of SWDD, Mr. Brian Lewis and Edwin Wilson, both with Republic Services of Florida LP (Republic), and Dr. Kwasi Badu-Tweneboah, P.E., Dr. Ramil Mijares, P.E., and Dr. José J. Lizárraga, all of Geosyntec.

Geosyntec has prepared this proposal (professional services as Exhibit A of CCNA-2018-WO No. 17, pursuant to that certain Continuing Contract Agreement for Professional Services, dated 17 April 2018, renewed and amended as of 18 May 2021 (collectively referred to as the “Agreement”), by and between INDIAN RIVER COUNTY, a political subdivision of the State of Florida (“COUNTY”) and Geosyntec (“Consultant”). The remainder of this proposal is organized to present: (i) project background; (ii) proposed scope of work; (iii) schedule; and (iv) budget estimate.

PROJECT BACKGROUND

The IRCL facility is located in southern Indian River County, east of Interstate 95, south of Oslo Road, and west of Rangeline Road in Vero Beach, Florida. The landfill serves the unincorporated Indian River County and municipalities of Vero Beach, Orchid, Fellsmere, Sebastian, and Indian River Shores. The landfill property includes a Class I landfill, an inactive Construction and Demolition (C&D) debris disposal facility, and other support facilities. The Class I Landfill includes the closed Segment 1/Infill/Segment 2 vertical expansion, and Segment 3 lateral

expansion (Segment 3). Republic serves as the operator of the Class I landfill. Currently, Republic is placing waste in Cells 1 and 2 of Segment 3 with Cell reaching approximate final waste grades.

The following documents were discussed during the videoconference call, and shared with Geosyntec:

- Drawing titled *Isopach Showing Maximum Interim Constructed Waste Grades and Current Year's Aerial Survey (Final Drawing Not Released For Construction)*, prepared by Hodges, Harbin, Newberry & Tribble, Inc. (HHNT), dated April 2022;
- Drawing titled *Cell 2 – North Slope Staking Points (For Discussion Purposes Only)*, dated June 23, 2022; and
- Spreadsheet titled *Indian River North Slope Design.xlsx*

On September 13, 2022, Mr. Ron T. Jones provided the following files via electronic transfer:

- Electronic drawing file titled: *S39-08_ASBUILT.dwg*;
- Electronic drawing file titled: *X-TOPO-2009.dwg*;
- Electronic drawing file titled: *X-TOPO-BASE.dwg*;

Based on the above information, and communication with SWDD, Geosyntec understands that certain portions of Cell 1 contain waste at elevations that are close to the permitted top of waste grades. Based on analyses of remaining volume of airspace using recent aerial surveys, Republic has expressed concern that capacity at Cell 1 might be reached before SWDD anticipated. Thus, SWDD has asked Geosyntec to provide a proposal for engineering services to verify the available volume of airspace of Cell 1 and provide a work plan for the remaining of its waste filling sequencing.

PROPOSED SCOPE OF WORK

Geosyntec will evaluate historic and recent aerial surveys completed at Cell 1 and compare them against the permitted top of waste grading plan of Segment 3 originally designed by Geosyntec. To supplement the information obtained from aerial surveys and evaluate the existing conditions, Geosyntec proposes to conduct a one-day Site inspection of Cell 1 and Cell 2. During this Site visit, Geosyntec will utilize a Global Positioning System (GPS) equipment to obtain current waste grades for use in the design. Engineering drawings will be prepared showing waste filling grading plans, remaining airspace volume, and control points to aid Republic with remaining waste filling sequencing at Cell 1. For the purpose of budgeting, the scope of work has been divided into the following four (4) phases:

- Phase 1 – Project Management and Meetings;
- Phase 2 – Files Review and Data Evaluation;
- Phase 3 – Site Inspection Visit; and
- Phase 4 – Engineering Drawings.

The remainder of this section presents a brief description of the activities to be performed in each phase.

Phase 1: Project Management and Meetings

Under this phase, Geosyntec will perform project planning and management responsibilities, such as correspondence with SWDD and Republic, invoice review, project coordination, and videoconference meetings. Geosyntec has also included a budget for preparation and attendance (by two Geosyntec personnel) at two meetings: (i) kickoff meeting with SWDD and Republic staff to discuss the proposed scope of work; and (ii) a design review meeting upon completion of the top of waste grades drawings.

Phase 2: Files Review and Data Evaluation

Under this phase Geosyntec will review electronic drawings (i.e., aerial surveys, permitted waste grading plans), and relevant files to evaluate remaining airspace volume at Cell 1.

Phase 3: Site Inspection Visit

Under this phase Geosyntec personnel will conduct a Site inspection at Cell 1. Photographic records, field notes and spot elevations at select locations will be recorded with a GPS to corroborate information collected during the data evaluation phase.

Phase 4: Engineering Drawings

Under this phase, Geosyntec will prepare engineering drawings to aid waste filling operations at Cell 1. The following sheets will be included:

- Cover Sheet
- Existing Conditions;
- Top of Waste Grading Plan and Control Points;
- Isopach of Remaining Waste to be Filled; and
- Landfill Cross Sections.

SCHEDULE

Geosyntec will initiate work immediately upon receipt of Notice to Proceed (NTP) from SWDD and will complete this work with four (4) weeks of receipt of NTP.

BUDGET ESTIMATE

Geosyntec proposes to perform the above-referenced work on a lump sum basis for \$26,025.00. A budget estimate for the scope of work outlined in Phases 1 through 4 of this proposal is summarized in the following table, and a detailed budget estimate is provided as **Attachment A**.

| Task | Description | Cost Estimate |
|--------------|----------------------------------|----------------------|
| 1 | Project Management/Meetings | \$3,341.04 |
| 2 | Files Review and Data Evaluation | \$3,490.88 |
| 3 | Site Inspection Visit | \$4,830.80 |
| 4 | Drawings | \$14,362.28 |
| Total | | \$26,025.00 |

Geosyntec will invoice SWDD each month of the project on a lump sum, percent complete basis in accordance with our Agreement. Additional services or any significant change in the scope of work will be performed using the Rate Schedule included in our Agreement. Geosyntec will not exceed the budget estimate without prior approval and written authorization from SWDD.

CLOSURE

Geosyntec appreciates this opportunity to offer our services. If this proposal is acceptable, please indicate your agreement by signing the attached work authorization, which references this proposal. Please return one signed work authorization to Dr. Badu-Tweneboah's attention. Please call either of the undersigned with questions you may have as you review this proposal.

Sincerely



Kwasi Badu-Tweneboah, Ph.D., P.E.
Senior Principal
(904) 450-4259
kbadu-tweneboah@geosyntec.com



José J. Lizárraga, Ph.D.
Professional
(904) 450 4282
jlizarraga@geosyntec.com

ATTACHMENT A
DETAILED BUDGET ESTIMATE

Table 1

**BUDGET ESTIMATE
EVALUATION OF DESIGN AND CURRENT WASTE GRADES, SEGMENT 3, CELL 1
INDIAN RIVER COUNTY CLASS I LANDFILL
INDIAN RIVER COUNTY, FLORIDA**

PHASE 1: PROJECT MANAGEMENT/MEETINGS

| ITEM | BASIS | RATE | QUANTITY | ESTIMATED COST |
|---|----------|--------|----------|-------------------|
| A. Professional Services | | | | |
| a. Senior Principal | Hr | \$260 | 6 | \$1,560.00 |
| b. Principal | Hr | \$245 | 0 | \$0.00 |
| c. Senior Professional | Hr | \$225 | 0 | \$0.00 |
| d. Project Professional | Hr | \$203 | 0 | \$0.00 |
| e. Professional | Hr | \$176 | 8 | \$1,408.00 |
| f. Senior Staff Professional | Hr | \$154 | 0 | \$0.00 |
| g. Staff Professional | Hr | \$132 | 0 | \$0.00 |
| Subtotal Professional Services | | | | \$2,968.00 |
| B. Technical/Administrative Services | | | | |
| a. Sr. CADD Designer | Hr | \$165 | 0 | \$0.00 |
| b. CADD Designer | Hr | \$143 | 0 | \$0.00 |
| c. Project Administrator | Hr | \$71 | 4 | \$284.00 |
| d. Clerical | Hr | \$55 | 0 | \$0.00 |
| Subtotal Technical/Administrative Services | | | | \$284.00 |
| C. Reimbursables | | | | |
| a. Lodging | Day | \$164 | 0 | \$0.00 |
| b. Per Diem | Day | \$55 | 0 | \$0.00 |
| c. Communications Fee | 3% Labor | 0.03 | \$2,968 | \$89.04 |
| d. CADD Computer System | Hr | \$15 | 0 | \$0.00 |
| e. Vehicle Rental & Fuel | Day | \$150 | 0 | \$0.00 |
| f. 8"x11" Photocopies | Each | \$0.12 | 0 | \$0.00 |
| g. CADD Drawings | Each | \$3 | 0 | \$0.00 |
| Subtotal Reimbursables | | | | \$89.04 |
| TOTAL ESTIMATED BUDGET : PHASE 01 | | | | \$3,341.04 |

Table 2

BUDGET ESTIMATE
EVALUATION OF DESIGN AND CURRENT WASTE GRADES, SEGMENT 3, CELL 1
INDIAN RIVER COUNTY CLASS I LANDFILL
INDIAN RIVER COUNTY, FLORIDA

PHASE 2: FILES REVIEW AND DATA EVALUATION

| ITEM | BASIS | RATE | QUANTITY | ESTIMATED COST |
|---|----------|--------|----------|-------------------|
| A. Professional Services | | | | |
| a. Senior Principal | Hr | \$260 | 4 | \$1,040.00 |
| b. Principal | Hr | \$245 | 0 | \$0.00 |
| c. Senior Professional | Hr | \$225 | 0 | \$0.00 |
| d. Project Professional | Hr | \$203 | 0 | \$0.00 |
| e. Professional | Hr | \$176 | 6 | \$1,056.00 |
| f. Senior Staff Professional | Hr | \$154 | 0 | \$0.00 |
| g. Staff Professional | Hr | \$132 | 0 | \$0.00 |
| Subtotal Professional Services | | | | \$2,096.00 |
| B. Technical/Administrative Services | | | | |
| a. Sr. CADD Designer | Hr | \$165 | 8 | \$1,320.00 |
| b. CADD Designer | Hr | \$143 | 0 | \$0.00 |
| c. Project Administrator | Hr | \$71 | 0 | \$0.00 |
| d. Clerical | Hr | \$55 | 0 | \$0.00 |
| Subtotal Technical/Administrative Services | | | | \$1,320.00 |
| C. Reimbursables | | | | |
| a. Lodging | Day | \$164 | 0 | \$0.00 |
| b. Per Diem | Day | \$55 | 0 | \$0.00 |
| c. Communications Fee | 3% Labor | 0.03 | \$2,096 | \$62.88 |
| d. CADD Computer System | Hr | \$15 | \$0 | \$0.00 |
| e. Vehicle Rental & Fuel | Day | \$150 | 0 | \$0.00 |
| f. 8"x11" Photocopies | Each | \$0.12 | 0 | \$0.00 |
| g. CADD Drawings | Each | \$3 | 4 | \$12.00 |
| Subtotal Reimbursables | | | | \$74.88 |
| TOTAL ESTIMATED BUDGET : PHASE 02 | | | | \$3,490.88 |

Table 3

**BUDGET ESTIMATE
EVALUATION OF DESIGN AND CURRENT WASTE GRADES, SEGMENT 3, CELL 1
INDIAN RIVER COUNTY CLASS I LANDFILL
INDIAN RIVER COUNTY, FLORIDA**

PHASE 3: SITE INSPECTION VISIT

| ITEM | BASIS | RATE | QUANTITY | ESTIMATED COST |
|---|----------|-------|----------|-------------------|
| A. Professional Services | | | | |
| a. Senior Principal | Hr | \$260 | 10 | \$2,600.00 |
| b. Principal | Hr | \$245 | 0 | \$0.00 |
| c. Senior Professional | Hr | \$225 | 0 | \$0.00 |
| d. Project Professional | Hr | \$203 | 0 | \$0.00 |
| e. Professional | Hr | \$176 | 10 | \$1,760.00 |
| f. Senior Staff Professional | Hr | \$154 | 0 | \$0.00 |
| g. Staff Professional | Hr | \$132 | 0 | \$0.00 |
| Subtotal Professional Services | | | | \$4,360.00 |
| B. Technical/Administrative Services | | | | |
| a. Sr. CADD Designer | Hr | \$165 | 0 | \$0.00 |
| b. CADD Designer | Hr | \$143 | 0 | \$0.00 |
| c. Project Administrator | Hr | \$71 | 0 | \$0.00 |
| d. Clerical | Hr | \$55 | 0 | \$0.00 |
| Subtotal Technical/Administrative Services | | | | \$0.00 |
| C. Reimbursables | | | | |
| a. Lodging | Day | \$164 | 0 | \$0.00 |
| b. Per Diem | Day | \$55 | 2 | \$110.00 |
| c. Communications Fee | 3% Labor | \$0 | \$4,360 | \$130.80 |
| d. CADD Computer System | Hr | \$15 | 0 | \$0.00 |
| e. Vehicle Rental & Fuel | Day | \$150 | 1 | \$150.00 |
| f. 8"x11" Photocopies | Each | \$0 | 0 | \$0.00 |
| g. GPS | day | \$80 | 1 | \$80.00 |
| Subtotal Reimbursables | | | | \$470.80 |
| TOTAL ESTIMATED BUDGET : PHASE 03 | | | | \$4,830.80 |

Table 4

**BUDGET ESTIMATE
EVALUATION OF DESIGN AND CURRENT WASTE GRADES, SEGMENT 3, CELL 1
INDIAN RIVER COUNTY CLASS I LANDFILL
INDIAN RIVER COUNTY, FLORIDA**

PHASE 4: DRAWINGS

| ITEM | BASIS | RATE | QUANTITY | ESTIMATED COST |
|---|----------|--------|----------|--------------------|
| A. Professional Services | | | | |
| a. Senior Principal | Hr | \$260 | 6 | \$1,560.00 |
| b. Principal | Hr | \$245 | 0 | \$0.00 |
| c. Senior Professional | Hr | \$225 | 4 | \$900.00 |
| d. Project Professional | Hr | \$203 | 0 | \$0.00 |
| e. Professional | Hr | \$176 | 16 | \$2,816.00 |
| f. Senior Staff Professional | Hr | \$154 | 0 | \$0.00 |
| g. Staff Professional | Hr | \$132 | 0 | \$0.00 |
| Subtotal Professional Services | | | | \$5,276.00 |
| B. Technical/Administrative Services | | | | |
| a. CADD Designer | Hr | \$165 | 54 | \$8,910.00 |
| b. Senior Drafter/Senior CADD Operator | Hr | \$143 | 0 | \$0.00 |
| c. Project Administrator | Hr | \$71 | 0 | \$0.00 |
| d. Clerical | Hr | \$55 | 0 | \$0.00 |
| Subtotal Technical/Administrative Services | | | | \$8,910.00 |
| C. Reimbursables | | | | |
| a. Lodging | Day | \$164 | 0 | \$0.00 |
| b. Per Diem | Day | \$55 | 0 | \$0.00 |
| c. Communications Fee | 3% Labor | 0.03 | \$5,276 | \$158.28 |
| d. CADD Computer System | Hr | \$15 | 0 | \$0.00 |
| e. Vehicle Rental & Fuel | Day | \$150 | 0 | \$0.00 |
| f. 8"x11" Photocopies | Each | \$0.12 | 0 | \$0.00 |
| g. CADD Drawings | Each | \$3 | 6 | \$18.00 |
| Subtotal Reimbursables | | | | \$176.28 |
| TOTAL ESTIMATED BUDGET : PHASE 04 | | | | \$14,362.28 |