

6354-13
Amd 4

**AMENDMENT NUMBER FOUR TO AGREEMENT
BETWEEN
THE CITY OF JACKSONVILLE
AND
CDM SMITH INC.
FOR
LANDFILL PERMITTING AND DESIGN**

THIS AMENDMENT NUMBER FOUR to Agreement is made and entered into in duplicate this 18 day of Dec, 2013, by and between the CITY OF JACKSONVILLE (hereinafter the "CITY"), a municipal corporation in Duval County, Florida, and CDM SMITH INC. (hereinafter the "CONSULTANT"), a foreign profit corporation authorized to do business in the State of Florida with its principal place of business at One Cambridge Place, 50 Hampshire Street, Cambridge, Massachusetts 02139, for Landfill Permitting and Design (hereinafter the "Project").

RECITALS:

WHEREAS, on February 9, 2011, the parties made and entered into City Contract # 6354-13 (hereinafter the "Agreement") for the Project; and

WHEREAS, said Agreement has been amended three (3) times previously; and

WHEREAS, said Agreement should be amended further to revise the Scope of Services by encumbering \$501,598.00 for the completion of the remaining services related to the design and permitting of the landfill approved in Amendment Number Three and described in **Exhibit "G" Part 2 (Table 2)** and by adding, attaching, and incorporating a new Encumbrance Sheet, attached hereto and by this reference made a part hereof, with the maximum indebtedness remaining a not-to-exceed amount of \$4,364,870.00 and with all other provisions, terms, and conditions of said Agreement remaining unchanged; now therefore

IN CONSIDERATION of the Agreement and of the mutual covenants and agreements hereinafter contained, the parties agree to amend said Agreement as follows:

1. The above stated recitals are accurate, true, and correct and, by this reference, are incorporated herein and made a part hereof.

2. Section 1.01 entitled "STATEMENT OF CONSULTANT SERVICES" in said Agreement is amended, in part, to revise the Scope of Services by encumbering \$501,598.00 for the completion of the remaining services related to the design and permitting of the landfill approved in Amendment Number Three and described in **Exhibit "G" Part 2 (Table 2)** and by adding, attaching, and incorporating a new Encumbrance Sheet and, as amended, shall read as follows:

"1.01 STATEMENT OF CONSULTANT SERVICE

"The CONSULTANT shall furnish all services, documents, drawings and other matters called for in this Agreement, as well as those contained in the "Scope of Services" attached hereto as **Exhibits 'A', 'C', 'E', and 'G'** and, by this reference, made a part hereof and incorporated herein. If any services, functions or responsibilities not specifically described in this Agreement and/or the Scope of Services are necessary for the proper performance and provision of the Services, they shall be deemed to be implied by and included within the Scope of Services to the same extent and in the same manner as if specifically described in this Agreement. The Contractor shall be responsible for providing the equipment, supplies, personnel (including management, employees, and training), and other resources as necessary to provide the Services. The CONSULTANT accepts the special relationship established between itself and the CITY by this Agreement. The CONSULTANT covenants with the CITY that it is an expert in the design of the Project and will cooperate with Program Managers, Construction Managers, CITY representatives, and others in fostering the interests of the CITY. The CONSULTANT shall employ sound business administration and superintendence to complete the Project in a manner consistent with the best interests of the CITY."

3. Attach the new Encumbrance Sheet encumbering \$501,598.00 for the completion of the remaining services related to the design and permitting of the landfill approved in Amendment Number Three and described in **Exhibit “G” Part 2 (Table 2)**.

SAVE AND EXCEPT as expressly amended in and by this instrument, the provisions, terms, and conditions of the Agreement of February 9, 2011, as previously amended, shall remain unchanged and shall continue in full force and effect.

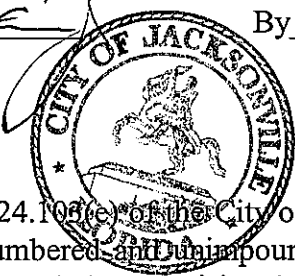
[Remainder of this page is intentionally left blank. Signature page follows immediately.]

IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement the day and year first above written.

ATTEST:

CITY OF JACKSONVILLE

By James R. McCain, Jr.
James R. McCain, Jr.
Corporation Secretary



By Karen Bowling
Alvin Brown, Mayor

In compliance with Section 24.103(e) of the City of Jacksonville Ordinance Code I do certify that there is an unexpended, unencumbered and unimpounded balance in the appropriation sufficient to cover the foregoing Agreement and that provision has been made for the payment of the monies provided therein to be paid.

C. Ronald Bolton
Director of Finance
City Contract # 6354-13
Amendment Number 4 BT

Form Approved:

James R. McCain, Jr.
Office of General Counsel

Karen Bowling
Chief Administrative Officer
For: Mayor Alvin Brown
Under Authority of:
Executive Order No. 2013-04

ATTEST:

CDM SMITH INC.

By Mario J. Marcaccio
Signature
MARIO J. MARCACCIO
Type/Print Name
ASSISTANT SECRETARY
Title

Patrick R. Victor
Signature
Patrick R. Victor
Type/Print Name
Vice President
Title

EXHIBIT G

AMENDMENT 3 to TASK AUTHORIZATION 6354-13

FOR

TRAIL RIDGE LANDFILL CLASS I CELL

PERMITTING & DESIGN AND BORROW PIT EVALUATION / EXPANSION

This Authorization, when executed, shall be incorporated in and become part of the Agreement for Professional Services between the City of Jacksonville (OWNER), and CDM Smith Inc. (CONSULTANT), dated February 9, 2011 hereafter referred to as the Agreement.

PROJECT BACKGROUND

CONSULTANT will assist the City of Jacksonville Solid Waste Division (OWNER) with the design and permitting of a new Class 1 landfill facility at the Trail Ridge Landfill (TRLF) site. The existing landfill has been developed via five stages of cell construction (Phases 1-5) over 20 years and is within 5-7 years of reaching capacity.

Additionally, the OWNER owns approximately 500 acres south of the TRLF site which are to be used as a borrow pit. Approximately 200 acres are slated for use by the landfill operator, Waste Management (WM), for daily and intermediate cover needs. The OWNER desires to develop the remaining 300 acres as a source for the final cover material for the TRLF Expansion. The OWNER desires CDM to develop a Borrow Pit Management Plan classifying the depth and extent of usable subsurface materials. The plan will be used to guide future excavation activities on site to improve the beneficial use of the land.

CONSULTANT has completed the following work related to the TRLF Expansion Project.

Initial Authorization – Develop a Master Plan for the build out of the TRLF site. The Masterplan recommended three phases, Phases 6 through 8, for full site buildout and evaluated various options for the next cell construction, Phase 6 expansion. The initial authorization also initiated field data collection for design of the TRLF Expansion Project.

Amendment 1 – Developed permit application and supporting documentation for the TRLF Expansion Environmental Resource Permit (ERP).

Amendment 2 – Continued data collection and developed permitting plans and specifications for Phase 6A through 6E TRLF Expansion FDEP Solid Waste Permit. Amendment 2 included conceptual stormwater modeling, development of methane gas management plan, geotechnical stability analysis, and ongoing hydro-geological modeling.

SCOPE OF WORK

This scope of work for Amendment 3 is a continuation of the work begun under Amendment 2 to complete the FDEP Solid Waste Construction Permit Application and supporting documentation and develop construction plans and specifications suitable for bidding Phases 6A and 6B of the TRLF Expansion. Additionally, this scope includes data gathering and preliminary design for the TRLF Borrow

Pit. The following is a description of the services to be provided under this Task Authorization. The non-sequential order of some tasks and subtasks listed below is a result of tasks either being authorized under previous amendments or the work is to be authorized as part of future amendments.

TASK 1 - KICKOFF MEETING

There is no change to Task 1. All work has been completed for this task.

TASK 2 - DATA COLLECTION AND REVIEW

There is no change to Task 2. All work has been completed for this task.

TASK 3 - TRLF EXPANSION LANDFILL CELL ALTERNATIVES DEVELOPMENT

There is no change to Task 3. All work has been completed for this task.

TASK 4 - ANALYSIS OF PHASE 6 CELL ALTERNATIVE LOCATIONS

There is no change to Task 4. All work has been completed for this task.

TASK 5 - INITIATE FIELD SITE INVESTIGATION

There is no change to Task 5. All work has been completed for this task.

TASK 6 - STORMWATER MODELING

There is no change to Task 6.

TASK 7 - PROJECT MANAGEMENT

Task 7 is amended as follows:

CONSULTANT will perform project management duties for the time period from the approval of Amendment 2 (September 1, 2011) thru the permitting and bidding phase which is expected to be completed by June 1, 2014.

TASK 8 - WETLAND LONG TERM HYDRATION EVALUATION

There is no change to Task 8.

TASK 9 - FLOOD ELEVATION DETERMINATION

There is no change to Task 9.

TASK 10 - ENVIRONMENTAL RESOURCE PERMITTING

To facilitate submission of the TRLF ERP Application, the work detailed under this task will be performed. Task 10 is amended to include the following subtasks:

Subtask 10.7 - Formal Wetland Declaratory Statement

As part of the wetland declaratory statement, the following tasks will be performed:

Wetland Line Revisions- A review of soils data and hydrologic information obtained from the piezometers and monitoring wells installed under Amendment 2 indicates that a new wetland line can

be flagged for the second wetland north of the existing landfill. The wetland line will be redelineated and coordinated with applicable regulatory agencies for applicable wetland permits.

FDEP submission- Prepare the petition document for a Formal Wetland Declaratory Statement with the Florida Department of Environmental Protection (FDEP).

Requests for Additional Information – Prepare responses to Requests for Additional Information; coordinate with surveyor, consult with FDEP, conduct pre-site coordination and follow up coordination activities after field reviews, and produce of final documentation.

Monitoring - The shallow piezometers installed under Amendment 2 will be read and recorded weekly to determine the hydrological definition of the wetland. After some major rainfall events data will be read more frequently to produce daily data to use in wetland jurisdiction context. A report on wetland hydrology will be prepared following the end of the seasonal wet period, to assist with permitting, potentially limiting jurisdiction and/or demonstrating impaired wetland function for mitigation discussion.

Subtask 10.8 - Review of ERP Application

Under Amendment 1, CONSULTANT's sub consultant was authorized to develop the ERP Application. The following tasks outline QA/QC of the ERP Application across multiple disciplines and subcontractors.

Subtask 10.8.1 - Review of Stormwater Modeling

Detailed, construction level stormwater modeling of the proposed landfill expansion has been performed by CONSULTANT's sub consultant as authorized under Amendment 1. CONSULTANT will perform a technical review of the work provided by CONSULTANT's sub consultant and will review both the existing and proposed stormwater models described below.

Existing Conditions Stormwater Model: A conceptual hydrologic/hydraulic model of existing drainage conditions for the project area was developed as part of the initial modeling work authorized under Subtask 11.1 of Amendment 2. This model will be modified as needed, to establish baseline design criteria in terms of peak flows, volumes, and flood elevations throughout the onsite basins to the appropriate point(s) of discharge.

Proposed Conditions Stormwater Model: A conceptual hydrologic/hydraulic model of proposed drainage conditions for the project area was developed as part of the initial modeling work authorized under Subtask 11.1 of Amendment 2. This model will be modified as needed, to develop a construction design level tool. The stormwater management plan will be developed with the intent to preserve existing flow paths to the extent possible to avoid flooding impacts to off-site properties while minimizing impacts to existing wetland system hydroperiods, both on-site and off-site. The goal of the stormwater modeling effort will be to minimize changes to stormwater discharges and water levels off-site. The model will be used as a tool to demonstrate that the proposed site development plan meets applicable regulatory criteria.

Subtask 10.8.2 - Review of ERP Construction Drawings and Specifications

CONSULTANT's sub consultant will develop the ERP stormwater drawings and specifications for submittal with the ERP Construction application as authorized in Amendment 1. CONSULTANT will

perform a technical review of the work provided by CONSULTANT's sub consultant. It is assumed there will be up to 25 drawings which will be reviewed under this task.

Subtask 10.8.3 - Review Wetlands Information

CONSULTANT's sub consultant will develop the ERP, wetlands, and environmental analysis to assist with the construction permitting. A detailed Uniform Mitigation Assessment Methodology (UMAM) analysis and a wetland mitigation plan will be developed as authorized in Amendment 1. CONSULTANT will perform a technical review of the work provided by subconsultant including the UMAM analysis and wetlands mitigation plan.

Subtask 10.8.4 - Review Construction ERP Application

CONSULTANT's sub consultant will prepare the application for the Construction ERP as authorized under Amendment 1. CONSULTANT will review the application prior to submittal to the FDEP.

Subtask 10.8.5 - Review ERP Requests for Additional Information

CONSULTANT's sub consultant will prepare and discuss responses to requests for additional information (RAI) which are pursuant to the ERP permitting as authorized under Amendment 1. CONSULTANT will perform a technical review of these responses prior to submittal to the FDEP.

Subtask 10.9 - Forestry Management Plan

CONSULTANT will subcontract with a qualified forestry sub consultant to prepare a forestry management plan and timber assessment of the TRLF Expansion Area. The following activities will be performed to support development of a timber management plan:

- Conduct a timber assessment and statistical inventory on the ± 1,156 acres to determine the approximate value of the forest resources on-site. This will be performed through the installation of 1/10th-acre plots, producing a systematic sampling intensity of one percent, equaling 115 plots.
- Develop a management plan for the ± 1,156 acre parcel with detailed discussions regarding the management goals and objectives for the parcel. The final plan will include maps describing soil conditions and stand types, and specific recommendations by stand type covering the next ten years.
- Provide oversight and coordination of one timber sale as outlined by the forestry sub consultant to occur on the stands identified to be harvested in the management plan. This task assumes 25 weeks of timbering harvesting.
- Coordinate the reforestation identified in the management plan. This will include coordination and monitoring of site-preparation activities, arrangements for the purchase and delivery of necessary seedlings, and coordination and monitoring of planting. This task also assumes 150 acres will be site prepared for reforestation

CONSULTANT will perform the following activities associated with the management of the timber resources available over the area currently owned by the OWNER for landfill operations at the TRLF site:

- Review the timber assessment prepared by the forestry subconsultant;
- Review the forestry management plan also prepared by the forestry subconsultant;

- Review the timber reforestation plan as prepared by the forestry subconsultant;
- Attend up to 6 monthly meetings with The OWNER and Forestry Manager and prepare meeting minutes.

TASK 11 - DESIGN AND PERMITTING

Task 11 is amended to include the following subtasks:

Subtask 11.2 - Permitting Plans and Specifications – 80% Complete

Under Amendment 2, CONSULTANT was contracted to provide permitting plans and specifications for Phase 6 to support the OWNER's Application for a Solid Waste Permit. The OWNER desires to permit Phases 7 and 8 as well to reserve future landfill capacity. Task 11.2 is amended as follows to include permit plans and specifications for Phases 7 and 8:

CONSULTANT will prepare solid waste permitting drawings and specifications for Phases 7 and 8 as required for permit submittals. The work does not include the design of any buildings, however, the location of such facilities will be shown on the drawings and general descriptions of their functions will be included. A sheet count has been developed as part of this subtask. The estimated sheet count for the Phases 7 and 8 cell layout, stormwater ponds, roads and other support facilities (except buildings) is 30 drawings.

All drawings will be prepared in accordance with CONSULTANT technical drawing standards. Base file information (aerials and digital files) will be submitted to CONSULTANT in formats consistent with CONSULTANT's drawing standards so that this information can be readily integrated into the design drawings.

During the preparation of permit drawings and specifications, CONSULTANT will conduct two quality assurance technical reviews. These reviews will occur at the 30 and 60 percent completion stage. 30 percent drawings and 60 percent complete drawings and specifications will be provided to the OWNER as progress check sets, and for review and comments.

Permit application preparation is described in subsequent tasks. Prior to permit submittal, a complete permit application including permitting drawings and specifications will be provided to the OWNER for review. The permit application submittal will incorporate OWNER comments from the 60 percent completion review.

Subtask 11.7 - Geotechnical Report for Proposed TRLF Expansion

To facilitate submission of the TRLF ERP Application to FDEP, the following subtasks will be performed.

Subtask 11.7.9 - Field Data Collection for Wetland Berm Seepage and Stability Analysis
CONSULTANT will perform a geotechnical/hydrological field exploration including seven (7) SPT borings along the east side of the proposed ponds, approximately one boring per 1,000 feet of berm length. The borings will extend to depths of 30 and 50 feet. Shallow and intermediate depth piezometers will be installed adjacent to each of the three 50-foot borings, and slug tests will be performed. Additionally seven (7) muck probes will be performed at the locations where the stormwater pond berms will be constructed in wetland areas.

Subtask 11.7.10 - Wetland Berm Seepage Analysis

Seepage analyses through the landfill and stormwater ponds will be analyzed using input from the groundwater models. The seepage through and beneath the stormwater pond berms will be evaluated. The results will be used to support drawdown calculations, estimate conditions in the adjacent wetlands and design any necessary remedial measures.

Subtask 11.7.11 - Slope Stability Analysis

Slope stability analyses will be run for sections through Phase 6 (current landfill expansion) and up to two additional sections in Phases 7 and 8. The sections will include landfill and the adjacent stormwater ponds.

Subtask 11.7.12 - Geotechnical Input for Stormwater Pond Design

Provide design recommendations for stormwater ponds, including construction materials, drainage and seepage control, side slopes, and construction considerations.

Subtask 11.7.13 - Geotechnical Report and Stormwater Memorandum

CONSULTANT will prepare a letter report for submittal with the ERP application as supporting documentation for storm water management design.

Subtask 11.8 - Ongoing Background Hydrological and Water Quality Monitoring and Hydrogeological Report

To facilitate submission of the TRLF ERP Application, the following subtask will be performed.

Subtask 11.8.5 - Installation of Additional Wetland Water Level Recorders

Several continuous water level recorders were installed within the flow-way portions of the wetlands east of the landfill expansion area under previous amendments. The flow-ways convey most of the surface water flow through these wetlands; however, under certain conditions flow will over top the bank of the flow-way and flood the adjacent wetland floodplain. Therefore, additional water level recorders will be installed in the floodplain portion of two large wetlands in the northeast corner of the site to monitor the conditions in which surface flow in these wetlands over tops the flow-ways. The water level recorders and associated staff gauges will be installed by the project surveyor under the direction and assistance of CONSULTANT. Once these wetland water level recorders are installed they will be monitored and data will be downloaded at the same quarterly frequency as the other water level recorders and monitor wells.

Subtask 11.8.6 - Groundwater Modeling

To facilitate submission of the TRLF ERP Application, the work detailed under this task will be performed.

Subtask 11.8.6.6 - Stormwater Pond Drawdown Analysis for ERP Application

In support of the ERP application, CONSULTANT will use the uncalibrated preliminary three-dimensional groundwater flow model (MODFLOW) being developed as part of Amendment 2 to perform simulations for the proposed stormwater ponds and to evaluate groundwater level drawdown in the wetland preservation areas east of the landfill expansion area associated with the controlled normal water elevations. The following activities will be performed:

- Review the lithologic data from the recently completed (November 2011) soil borings in the proposed stormwater ponds and borings conducted in previous Amendments to confirm the model layer elevations in the proposed stormwater pond area;
- Review the water table elevation data collected from the onsite monitoring wells to determine the seasonal high water levels;
- Review the piezometer slug test results(if available) from the piezometers recently installed in the proposed stormwater pond area and slug test results conducted in Amendment 2 to confirm the aquifer properties used in the model;
- Assign the design normal water levels to the proposed stormwater ponds and estimate the groundwater drawdown without any hydraulic or physical controls to mitigate drawdown beneath adjacent wetlands;
- Evaluate the effectiveness of possible hydraulic or physical controls (slurry wall, clay core, etc) to mitigate drawdown beneath adjacent wetlands;
- Evaluate the rehydration of existing wetlands east of stormwater ponds in offsetting groundwater level drawdown;
- Evaluate raising design normal water level of the stormwater ponds and the associated groundwater level drawdown;
- Provide recommendations to the design team for improvements to the pond berms to mitigate anticipated groundwater level drawdown based on the modeling results and subsequent engineering evaluations; and
- Prepare a technical memorandum to document the data collected and review simulations, analysis, and recommendations in support of the ERP permit application and stormwater pond berm design.

Subtask 11.10 - FDEP Title V Air Operating Permit

The TRLF Title V Air Operating Permit (0310358-010) was recently renewed and has an expiration date of May 10, 2015. Based on the approved Master Site Plan design and discussions with FDEP, CONSULTANT will prepare and file an update to the current design and capacity reports for the landfill as required by the New Source Performance Standards (NSPS).

Subtask 11.13 - Requests for Additional Information

CONSULTANT and sub consultants will prepare and discuss responses to requests for additional information (RAI) for the NPDES, CUP, and Title V Permit applications which are pursuant to this Scope of Work. This Scope assumes that FDEP will issue two RAIs, requiring CONSULTANT and sub consultants to prepare up to two responses.

Subtask 11.14 - Consumptive Use Permit (CUP)

The TRLF property currently has a water supply well on site and with an associated Consumptive Use Permit (CUP). CONSULTANT will modify the CUP as needed if an additional well is needed to supply the new operations building.

Subtask 11.15 - NPDES Permitting

The TRLF property currently has a NPDES Multi-Sector General Permit (MSGP) at the discharge point of the existing stormwater pond. CONSULTANT will modify the existing MSGP to include additional discharge points associated with the expanded stormwater treatment facilities.

TASK 12 - SOLID WASTE LANDFILL CONSTRUCTION PERMITTING

Task 12 was authorized under previous amendments but was not budgeted at that time. The following subtasks outline the work to be performed under Amendment 3 to obtain the construction permit for the TRLF Expansion.

Subtask 12.1 - FDEP Application for Permit to Construct/Operate a Solid Waste Resource Recovery and Management Facility – Class I Processing and Disposal Facilities

CONSULTANT will prepare and submit a FDEP permit application for a construction permit for Phases 6 through 8 of the proposed TRLF Expansion Project. The FDEP Permit Application includes the following components:

- Appendix A Geotechnical Evaluation Report
- Appendix B Design Drawings
- Appendix C Topographic Site Survey
- Appendix D Landfill Capacity Analysis
- Appendix E Financial Responsibility Documentation
- Appendix F Technical Specifications
- Appendix G Construction Quality Assurance Manual
- Appendix H Primary/Secondary Leachate Collection System Design
- Appendix I Leachate Collection System Pipe Design
- Appendix J Leachate Generation and Disposal
- Appendix K Operation Plan
- Appendix L FRP Tank Inspection Report
- Appendix M Hydrological Evaluation Report

Subtask 12.1.1 - Technical Specifications

Technical specifications will be provided for the permit application submittal and will cover the material components used in the design including: clay liner, synthetic liner, geonet, geotextiles, HDPE pipe, site preparation, excavation, backfill and compaction, and dewatering and drainage. The specifications will also describe work requirements, material standards, materials, and execution/installation.

Subtask 12.1.2 - Construction Quality Assurance Manual

One of the major requirements for an FDEP Permit to Construct is the submittal of a Construction Quality Assurance Manual for soil and geosynthetic materials and component installation. CONSULTANT will prepare a Construction Quality Assurance Manual for submittal to FDEP. The Construction Quality Assurance Manual will clearly define the duties and responsibilities of the geosynthetic products manufacturer, and the qualifications and responsibilities of the installer's field representative, installation supervisor, seamers, and other fabrication/installation personnel. In addition, the Construction Quality Assurance Manual will detail procedures for acceptance, storage, installation, and testing of geosynthetic and clay materials. Construction-related report form (chain of custody forms, inspection forms, and other "tracking" documentation) will be included.

Subtask 12.1.3 - FDEP Solid Waste Permit Application Package

CONSULTANT will assemble the permit plans, specifications, geotechnical report, water quality report, operations plans, closure plans, and financial assurance information into a comprehensive permit package for final review by the OWNER. Following the OWNER's review, the permit application will be submitted to the FDEP.

Subtask 12.1.4 - Requests for Additional Information

CONSULTANT will prepare and discuss with the OWNER responses to requests for additional information (RAI) which are pursuant to the solid waste permitting. This Amendment assumes that FDEP will issue two RAIs, requiring CONSULTANT to prepare up to two responses. The OWNER will be responsible for all application fees.

Subtask 12.1.5 - Operations Permit (Not Budgeted)

No formal modification to the current operations permit is budgeted at this time.

Subtask 12.2 - Construction Contract Documents-Drawings & Specifications

Following submittal of the Solid Waste Construction Permit Application, CONSULTANT will continue with the development of 100% construction drawings and specifications for Cells 6A and 6B. The completed set of drawings will include changes resulting from internal interdisciplinary checks, and regulatory changes. The non-technical specifications (Divisions 0 and 1) will be provided by the OWNER and will be added to the technical specifications. Ten additional drawings are expected for the Construction drawings for a total of forty (40) drawings that are estimated at this time.

Subtask 12.3 - Phase 6A and 6B Final Estimate of Probable Construction Cost

CONSULTANT will prepare an estimate of probable construction cost for Phases 6A and 6B based on bid documents. The estimate will be based on quantities of materials as shown on the plans and unit prices from equipment vendors or recent project bid tabulations. The cost estimate will be developed in spreadsheet format and provided to the OWNER.

Subtask 12.4 - Preparing Local Permitting Applications

CONSULTANT will prepare applications for permits required by the City of Jacksonville. The following permit(s) have been identified as required for submittal to the City Planning and Development Department. This task does not include off site permits such as offsite stormwater permitting. The OWNER will be responsible for all application fees.

- Site Development Plan Review (10 set).
- Certificate of Public Notice as required by the City of Jacksonville's Code of Ordinances Title X- Environmental Affairs Chapter 380.
- Zoning Exemption – To be provided by the OWNER. CONSULTANT will perform no work on this subtask.

TASK 13 - QUALITY ASSURANCE AND QUALITY CONTROL

There is no change to Task 13.

TASK 14 - ECONOMIC EVALUATION

There is no change to Task 14.

TASK 15 - PUBLIC INFORMATION PROGRAM ASSISTANCE

There is no change to Task 15.

TASK 16 - BIDDING SERVICES

Task 16 was authorized under previous amendments but was not budgeted at that time. The following subtasks outline the work to be performed under Amendment 3 to provide bidding services for the TRLF Expansion.

Subtask 16.1 - Bidding Support and Addenda

CONSULTANT will assist with the advertisement of the bid, address questions on bid documents forwarded by the OWNER, attend a pre-bid conference, and issue up to two addenda, as necessary. The OWNER will advertise for bids, supply drawings and specifications to contractors, and coordinate addenda distribution. The OWNER will be responsible for the cost of copying the plans and specification that are made available to prospective bidders.

Subtask 16.2 - Evaluation of Bidders

CONSULTANT will attend the bid opening, evaluate bids based on references, pricing, and scope of services, and recommend a bidder to the OWNER for award of construction contract.

Subtask 16.3 - Conformed Documents

After issuance of a Notice of Award by the OWNER, CONSULTANT shall assist the OWNER in preparing the construction contract, request and review the bid package provided by the Contractor, and advise the OWNER on finalizing the contract. This does not include conformed drawings and specifications to incorporate addenda.

TASK 17 - GENERAL CONSTRUCTION SERVICES (NOT BUDGETED AT THIS TIME)

This task is currently not funded. If required in the future, funding will be pursued under a separate Amendment.

TASK 18 - SPECIAL ENGINEERING SERVICES (NOT BUDGETED AT THIS TIME)

This task is currently not funded. If required in the future, funding will be pursued under a separate Amendment.

TASK 19 - RESIDENT SERVICES DURING CONSTRUCTION (NOT BUDGETED AT THIS TIME)

This task is currently not funded. If required in the future, funding will be pursued under a separate Amendment.

TASK 20 - NEW CELL GEOSYNTHETIC INSTALLATION QA/QC CONSTRUCTION SERVICES (NOT BUDGETED AT THIS TIME)

This task is currently not funded. If required in the future, funding will be pursued under a separate amendment.

TASK 21 - BORROW PIT EVALUATION AND EXPANSION

The OWNER desires CONSULTANT to develop a Borrow Pit Management Plan classifying the depth and extent of usable subsurface materials. The plan will be used to guide future excavation activities on site to improve the beneficial use of the land.

Subtask 21.1 - Data Gathering

CONSULTANT will collect and evaluate the available information including available survey information for the 500 acre area, boring logs for previously drilled borings within the 300 acre area, NWI designated wetlands, existing surface and groundwater data, documents associated with permitting of the original 200 acre area, existing archeological data, and existing environmental data.

CONSULTANT will provide documentation of additional data and information necessary to complete the borrow pit analysis. Additional information may include:

- Survey information to identify potential areas for the initial stage(s) of mining.
- Locations and depths of additional borings to develop a sufficient understanding of the stratigraphy of the area.
- Additional surface and groundwater data to supplement the data developed under the initial authorization, Amendment 1, and Amendment 2 of the TRLF Expansion Project.

Subtask 21.2 - Preliminary Design

Subtask 21.2.1 - Geotechnical Exploration

CONSULTANT will subcontract with a qualified driller to collect additional borings in previously unexplored areas at a frequency of one boring per 5 acres (or less depending on the encountered subsurface conditions and the site geometry). Additional borings may be drilled in previously explored areas as needed to supplement existing data. The total number of proposed borings is estimated to be 31 in the upland areas and 13 in the wetlands, for a total of 44 borings.

Once collected, CONSULTANT staff will perform field and laboratory testing to estimate the properties of the subsurface soils to evaluate the suitability of the soils for use as final cover material. Laboratory testing will also include testing of silt and clay fines in the soil for evaluation of sediment control.

Additionally, CONSULTANT will install 4 piezometer clusters (shallow and intermediate depths) at four locations within the 500 acre site to assess groundwater levels and potential dewatering concerns.

CONSULTANT will prepare a technical memorandum to summarize field data and laboratory testing results.

Subtask 21.2.2 - Borrow Materials Assessment Report

Based on data from the borings outlined in the Geotechnical Exploration subtask, CONSULTANT will evaluate the materials encountered onsite over the approximate 300 acres to determine their suitability for the desired use as final cover material. The Assessment Report will include the following:

- A borrow pit sequencing plan based on the OWNER's expressed preferences regarding order of development of the borrow area.
- Materials handling plan for the areas identified in the borrow pit sequencing plan.
- Estimates of the quantities of the various soil types in the different sectors of the borrow pit and the corresponding length of time each sector would provide a reliable source of acceptable final cover material.
- Preliminary sequencing plan for the remainder of the site beginning with uplands areas and a conceptual plan for the wetlands if utilization of the wetland areas is determined to be necessary in the future.
- A summary of constructability considerations.

Subtask 21.2.3 - Dewatering Consumptive Use Permit (CUP) Related Evaluation

CONSULTANT will perform the following tasks associated with the potential need to apply for a dewatering Consumptive Use Permit (CUP):

- Review the geotechnical data from borings, borrow materials assessment, and hydrogeologic data;
- Coordinate with SJRWMD to determine whether a dewatering CUP is necessary for the borrow pit and related data requirement for the CUP preparation;
- Identify necessary modifications and refinements to the existing TRLF groundwater model for evaluation of impact analysis of borrow pit dewatering during the Borrow Pit Final Design phase;
- Prepare a brief technical memorandum to summarize the data needed for dewatering, the dewatering CUP preparation and proposed modification/refinement to the TRLF groundwater model to evaluate dewatering alternatives for borrow operations;
- Install data loggers in the proposed piezometers and collect groundwater level measurements for 2 events (at 3 month intervals) to evaluate onsite groundwater elevations.

Subtask 21.3 - Final Design (Not Budgeted)

The following subtasks are not currently budgeted and are outlined for information purposes only. If required in the future, funding will be pursued under a separate Amendment.

Subtask 21.3.1 - Stormwater Management Plan

Building on the tasks completed for the TRLF Expansion, CONSULTANT will expand the stormwater model(s) and develop the information to complete the requirements of the necessary permit applications.

Subtask 21.3.2 - Phasing Plan

Based on the outcome of the Preliminary Design phase, CONSULTANT will finalize the sequencing and materials handling plan and develop a spreadsheet of the estimated quantities of fill required per year for the life of the landfill and match the quantity required with specific areas within the proposed 300 acre borrow pit area.

Subtask 21.3.3 - Groundwater Dewatering and Impact Analysis

To estimate the dewatering volumes and rates, evaluate the drawdown impacts to the nearby wetlands, and provide the support for the design, CONSULTANT will perform the following tasks using the calibrated groundwater model developed for the TRLF Expansion:

- Refine the model grids in the vicinity of the proposed borrow pit area, as required;
- Update the model (as needed) with site-specific geotechnical data;
- Perform simulations for dewatering scenarios to estimate the dewatering volumes and rates;
- Perform drawdown analysis to determine the drawdown impacts to nearby wetlands;
- Evaluate the different scenarios for mitigating the drawdown impacts to the wetlands in the model, such as discharging the dewatering fluid to perimeter recharge trenches;
- Provide recommendations for implementing the dewatering plan in support of the final design of the borrow operations;
- Prepare a technical memorandum to document the modeling results, the impact analysis, and the recommendations on wetland drawdown mitigation.

Subtask 21.3.4 - Plans and Specifications

Under this subtask CONSULTANT will develop design plans and specifications suitable for bidding and construction for the agreed upon areas determined in the Preliminary Design phase and as agreed to by the OWNER.

Subtask 21.4 - Permitting (Not Budgeted at This Time)

The following tasks are not currently budgeted. If required in the future, funding will be pursued under a separate amendment.

Subtask 21.5 - Bidding (Not Budgeted at This Time)

The following tasks are not currently budgeted. If required in the future, funding will be pursued under a separate amendment.

TASK 22 - MEETINGS, PROJECT MANAGEMENT AND QUALITY CONTROL

Activities performed under this task consist of those general 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 and OWNER's expectations. Specific activities included are identified below:

Project Kick-Off and Progress Meetings

CONSULTANT will prepare for and conduct the following project meetings:

- Task 11 TRLF Phase 6 through 8 Design – CONSULTANT will attend periodic progress meetings during the estimated 18-month project duration. Additionally, the CONSULTANT will attend special meetings at the request of the OWNER from time to time. An average of one (1) additional meeting per month with the OWNER staff is assumed in this Amendment.
- Task 12 TRLF Solid Waste Permitting – CONSULTANT will attend up to two pre-application meetings with FDEP to review the proposed TRLF Solid Waste Construction Permit Application.
- Task 21 Borrow Pit Expansion Kickoff Meeting- following the Notice to Proceed from the OWNER, CONSULTANT will prepare an agenda for a project kickoff meeting. CONSULTANT will facilitate and participate in an initial open discussion with the OWNER to solicit feedback and ideas from the OWNER. CONSULTANT will prepare an agenda prior to the meeting and meeting notes after the meeting.
- Task 21 Bi-Weekly Meetings – CONSULTANT will prepare an agenda and facilitate the discussion of the progress of the work performed under Task 21.

The CONSULTANT will prepare and distribute meeting minutes of each meeting as appropriate. This task also includes monthly project status review management meetings, and periodic progress internal team meetings.

Project Quality Control (QC) Technical Review

CONSULTANT maintains an ongoing QC program. An internal project quality management planning session will be conducted at the start of the project. This action is required by CONSULTANT's quality management system (QMS) guidelines. Technical Review Committee (TRC) meetings are budgeted for and will be performed to review various percent complete submittals. OWNER's representatives are invited to attend and participate at the TRC meetings. Additional QA/QC activities are outlined in Task 13 of the initial task authorization.

Project Status Reports

CONSULTANT's project manager will prepare and submit monthly written status reports for an anticipated project life of 18 months to accompany monthly invoices.

ASSUMPTIONS

The following assumptions are included in this Task Authorization.

1. The OWNER will advertise for bids, supply drawings and specifications to contractors, and coordinate addenda distribution. The OWNER will be responsible for the cost of copying the plans and specification that are made available to prospective bidders.
2. Local permitting activities do not include off site activities such as offsite stormwater permitting.
3. The OWNER will be responsible for all permit application fees.
4. It is assumed that 150 acres will be site prepared for reforestation under the forestry management plan.

DELIVERABLES

The following deliverables will be provided:

- Task 10 – An electronic and hard copy of the ERP application and supporting documentation will be provided to the OWNER.
- Task 10 – CONSULTANT will provide electronic and hard copies of the Forestry Management Plan to the OWNER as needed for permitting and zoning purposes.
- Task 11 – CONSULTANT will provide a Geotechnical Report and Stormwater Memorandum to be included in the ERP supporting documentation. CONSULTANT will provide hard copies and electronic copies as necessary to be included in the ERP Application submittal.
- Task 11 – CONSULTANT will prepare a technical memorandum to document the stormwater pond drawdown analysis and recommendations in support of the ERP permit application and stormwater pond berm design. CONSULTANT will provide hard copies and electronic copies as necessary to be included in the ERP Application submittal.
- Task 12 – CONSULTANT will submit 2 hard copies and up to 10 electronic copies of the solid waste permit application and supporting documentation to the FDEP and OWNER.
- Task 12 – CONSULTANT will submit 3 full size and 5 half size copies of Phase 6A and 6B Contract Documents (plans and specifications) for bidding. CONSULTANT will also provide a reproducible electronic copy of the contract documents to the OWNER for bidding purposes.
- Task 12 – CONSULTANT will prepare an estimate of probable construction cost for Phases 6A and 6B based on bid documents. The estimate of probable construction cost will be provided in Microsoft Excel format.
- Task 16 – CONSULTANT will issue up to two addenda, as necessary to the Contract Documents released for bidding.
- Task 16 – CONSULTANT will submit 6 full size copies of Phase 6A and 6B Bidding Documents (drawings and specifications). CONSULTANT will also provide a reproducible electronic copy (pdf) of the contract documents to the OWNER.

- Task 21 - CONSULTANT will prepare a technical memorandum to summarize field data and laboratory testing results for Borrow Pit Area field investigations.
- Task 21 - CONSULTANT will submit 5 hard copies of the Borrow Materials Assessment Report.

TIME OF COMPLETION/SCHEDULE

CONSULTANT will begin work within 5 days of receiving Notice to Proceed (NTP) from the OWNER. The FDEP Application for Solid Waste Construction Permit for the TRLF Project will be submitted within 200 days of receiving NTP. Pending approval of the Solid Waste Construction Permit, the Construction drawings and specifications for Phases 6A and 6B will be provided 30 days from FDEP approval. The Borrow Pit Materials Report will be provided with 200 days of NTP.

COMPENSATION AND PAYMENT

CONSULTANT will complete the services listed in Tasks for a lump sum fee of \$1,391,739 as shown in Table 1. CONSULTANT will invoice monthly as a percentage of the lump sum based on the percentage of work completed during the billing period. Lump sum compensation shall be for all labor and other direct costs associated with the performance of the work.

EXHIBIT II

CONTRACT FEE SUMMARY FORMAT FOR ENGINEERING DIVISION

CITY OF JACKSONVILLE, FLORIDA

CLASS I LANDFILL PERMITTING AND DESIGN - AMENDMENT 3

2/1/2013

PART I - GENERAL

| | |
|---|------------------|
| 1. Project | Proposal Number |
| CLASS I LANDFILL PERMITTING AND DESIGN AMENDMENT #3 | RFP #P-07-10 |
| 3. Name of Consultant | Date of Proposal |
| CDM Smith Inc. | 2/1/2013 |

PART II - LABOR RELATED COSTS

| 5. Direct Labor | Hourly Rate | Estimated Hours | | TOTAL |
|--|-------------|----------------------|-----|-----------|
| Officer/Technical Expert | 74.32 | 316 | \$ | 23,485.12 |
| Principal / Associate / Project Manager | 63.06 | 1,247 | \$ | 78,635.82 |
| Senior Professional | 50.11 | 1,065 | \$ | 53,367.15 |
| Project Engineer II / GIS Specialist III | 41.10 | 1,748 | \$ | 71,842.80 |
| Project Engineer I / GIS Specialist II | 34.34 | 1,163 | \$ | 39,937.42 |
| Sr. GIS Specialist/Designer | 40.54 | 248 | \$ | 10,053.92 |
| GIS Specialist I / Drafter/Technician | 29.28 | 1,294 | \$ | 37,888.32 |
| Clerical | 20.83 | 824 | \$ | 17,163.92 |
| Field Staff Support Services | 28.15 | - | \$ | - |
| TOTAL DIRECT LABOR | 42.05 | 7,905 | \$ | 332,374 |
| 6. Overhead (Combined Fringe Benefit & Administrative) | | | | |
| Overhead Rate | 150.0% | x Total Direct Labor | \$ | 498,562 |
| 7. SUBTOTAL: Labor + Overhead (Items 5 & 6) | | | \$ | 830,936 |
| 8. PROFIT: Labor Related Costs (Item 7) | | x | 10% | \$ 83,094 |

PART III - OTHER COSTS

| | | | | |
|--|--|--|----|------------|
| 9. Miscellaneous Direct Costs | | | | |
| Transportation, Per Diem and Equipment | | | \$ | 10,609 |
| Presentation Boards | | | \$ | 5,000 |
| Reproduction | | | \$ | 55,000 |
| MISCELLANEOUS DIRECT COSTS SUB-TOTAL | | | \$ | 70,609 |
| 10. SUBCONTRACTS (Lump Sum) | | | | |
| Wetlands Declaratory Statement | | | \$ | 57,100 |
| Civil Site Plan | | | \$ | 50,000.00 |
| Forestry/Timber Management | | | \$ | 145,000.00 |
| Survey | | | \$ | 18,000.00 |
| Laboratory | | | \$ | 7,000.00 |
| Program Outreach | | | \$ | 30,000.00 |
| Geotechnical and Drilling | | | \$ | 100,000.00 |
| SUB-CONTRACT SUB-TOTAL | | | \$ | 407,100 |
| TOTAL LUMP SUM AMOUNT (Items 5, 6, 8, 9 and 10) | | | \$ | 1,391,739 |
| 11. REIMBURSABLE COSTS (Limiting Amount) | | | | |
| SUB-TOTAL REIMBURSABLES | | | \$ | |

PART IV - SUMMARY

| | | |
|--|----|-----------|
| TOTAL AMOUNT OF CONTRACT (Lump Sum Plus Reimbursables) | \$ | 1,391,739 |
| (Items 5, 6, 8, 9, 10 and 11) | | |
| 12. PRIOR CONTRACT AMOUNT (Through Amendment 2) | \$ | 3,243,500 |
| AMENDED AMOUNT OF CONTRACT | \$ | 4,635,239 |