

Meeting Date
7/26/16



AGENDA	
Section	Consent
Item No.	II. A. 13

**AGENDA REPORT**  
 BREVARD COUNTY BOARD OF COUNTY COMMISSIONERS

SUBJECT:	Request Approval of Neel-Schaffer Task Order 16-03 Re: Construction Plans, Bidding Assistance, and CQA Services during construction for Sarno Road Landfill Phase II.
DEPT/OFFICE:	Solid Waste Management Department

Requested Action:

It is requested that the Board of County Commissioners approve Neel-Schaffer Task Order 16-03 in the amount of \$308,815.00 to: (1) prepare construction bid documents and technical specification for Phase II sequential closure of the Sarno Road Landfill, as well as provide assistance during bidding and contractor selection, construction oversight, and Construction Quality Assurance (CQA) and testing services during construction; and, (2) authorize the Board Chairman to execute the same.

Summary Explanation & Background:

Chapter 403, Florida Statutes, Chapter 62-701, Florida Administrative Code, governs the construction, operation and closure of solid waste management facilities in the State and require Brevard County to construct, operate, maintain and close the County's Class III Sarno Road Landfill (SRL) in Melbourne, Florida, in accordance with these regulations, as well as the permits issued by FDEP for this facility. FDEP rules state, in part, that solid waste disposal units and side slopes within a landfill shall be closed as soon as they reach their approved design dimensions and within 180 days after final waste deposit. A FDEP permit has been acquired for the partial closure of the Sarno Landfill.

Neel-Schaffer is one of the engineering firms currently under continuing contract with the department and originally designed and permitted the closure project with the Florida Department of Environmental Protection. As such this firm has the most expertise in this particular closure project.

Task Order 16-03 will authorize Neel-Schaffer, Inc. to provide engineering services including preparation of construction bid documents (construction plans and technical specifications) and development of a construction cost estimate. Neel Schaffer will assist the County during bidding and contractor selection process, construction oversight and technical engineering assistance, coordination and construction materials testing and preparation of construction quality assurance and quality control documentation for submittal to FDEP.

**Fiscal Impact:**

For these services, Neel-Schaffer Inc. will be paid Three Hundred and Eight Thousand, Eight Hundred and Fifteen Dollars and no cents (\$308,815.00). Funds for this project have been budgeted under the Department's Board approved five-year CIP and are available in Fund 4011, Cost Center 352130.

**Name:** Euripides Rodriguez

**Phone:** (321) 633-2042

Clerk to the Board Instructions: Please sign and attest three (3) copies of Neel-Schaffer's Task Order 16-03 and return two (2) originals to the Department.

Exhibits Attached: Task Order 16-03 (3 copies)

Contract /Agreement (If attached):		Reviewed by County Attorney	Yes	<input type="checkbox"/>	No	<input type="checkbox"/>	PR	<input type="checkbox"/>
County Manager		Assistant County Manager				Department Director: Euripides Rodriguez		
Stockton Whitten		Assistant County Manager						



Tammy Rowe, Clerk to the Board, 400 South Street • P.O. Box 999, Titusville, Florida 32781-0999

Telephone: (321) 637-2001  
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Tammy.Rowe@brevardclerk.us

July 27, 2016

**MEMORANDUM**

TO: Euripides Rodriguez, Solid Waste Management Director

RE: Item II.A.13., Task Order No. 16-03 with Neel-Schaffer, Inc. for Construction Plans, Bidding Assistance, and Construction Quality Assurance (CQA) Services During Construction for Sarno Road Landfill Phase II

The Board of Commissioners, in regular session on July 26, 2016, executed Task Order No. 16-03 with Neel-Schaffer, Inc., in the amount of \$308,815, to prepare construction bid documents and technical specification for Phase II sequential closure of the Sarno Road Landfill, as well as provide assistance during bidding and contractor selection, construction oversight, and CQA and testing services during construction. Enclosed are two fully-executed Task Orders.

Your continued cooperation is always appreciated.

Sincerely,

BOARD OF COUNTY COMMISSIONERS  
SCOTT ELLIS, CLERK

Tammy Rowe, Deputy Clerk

Encls. (2)

cc: Finance  
Budget

### **Task Order No. 16-3**

**THIS TASK ORDER NO. 16-3**, dated the 26 day of JULY, 2016 by and between the BOARD OF COUNTY COMMISSIONERS OF BREVARD COUNTY, FLORIDA (the "County") and NEEL-SCHAFFER, INC. (the "Consultant"), amending that certain Agreement (the "Agreement") between the parties effective January 28, 2016.

#### **WITNESSETH**

**WHEREAS**, the Consultant has been selected by the County to provide consulting services to the County in the area of solid waste management in accordance with the provisions of Section 287.55, Florida Statutes, including services relating to the economic and efficient operation of the solid waste management system and the making of capital improvement to that system; and

**WHEREAS**, the Consultant has experience in the planning, procurement, preparation of permit applications and operation plans, design, financing, construction plans, construction administration, and operation of similar solid waste management systems and facilities; and

**WHEREAS**, the Consultant previously assisted the County obtain FDEP Solid Waste Permit for sequential closure of Sarno Road Class III Landfill (SRL); and

**WHEREAS**, Florida Administrative Code (FAC) Chapter 62-701 and the FDEP Operations Permit for SRL requires that when a phase of a landfill reaches its permitted elevations and full capacity it must be closed according to the requirements of the state regulations; and

**WHEREAS**, the SRL disposal operations on portions of the north and west slopes are completed requiring landfill gas and storm water run-off controls and final cover construction; and

**WHEREAS**, the Solid Waste Management Department's Capital Improvements Program (CIP) includes the funding for the design, permitting and construction of the sequential closure of the SRL; and

**WHEREAS**, the County desires the Consultant to prepare construction drawings, bid documents, provide services to administer the construction contract and provide permit required construction quality assurance services and certification of completion to FDEP for the SRL; and

**WHEREAS**, the County desires to amend the Agreement between the parties.

**NOW THEREFORE**, in consideration of premises and mutual promises and conditions contained herein, it is mutually agreed between the parties as follows:

**SECTION 1. SCOPE OF SERVICES**, the Scope of Services agreed to be performed by the Consultant pursuant to the continuing Agreement is hereby amended to include the services set forth in Exhibit "A", attached hereto.

**SECTION 2. COMPENSATION**, compensation shall be in accordance with "Section 3. COMPENSATION" of the continuing Agreement. The Consultant shall be paid a not-to-exceed amount of Three Hundred Eight Thousand and Eight Hundred Fifteen Dollars (\$308,815.00) as detailed in Exhibit "B" for engineering services provided as set out in Exhibit "A", attached to this Task Order.

**SECTION 3. CONTINUING EFFECT OF THE AGREEMENT**, except as otherwise provided herein, the Agreement effective January 28, 2016 shall remain in full force and effect.

**SECTION 4. TIME FOR PERFORMANCE**, Consultant shall complete the design, permitting and construction bid plan preparation work required in this Task Order within **fifty-two (52) weeks** after the County issues a Notice to Proceed.

IN WITNESS WHEREOF, the parties hereunto set their hands and seals the day and year first above written.

ATTEST:

  
\_\_\_\_\_  
SCOTT ELLIS, CLERK

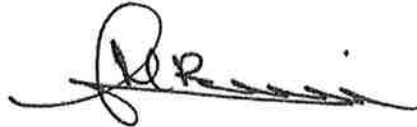
BOARD OF COUNTY COMMISSIONERS  
OF BREVARD COUNTY, FLORIDA

  
\_\_\_\_\_  
Jim Barfield, Chairman  
As approved by the Board on 7/26/16

ATTEST:

  
\_\_\_\_\_  
J. Clark Robinson, CFO/Sr. V.P.

NEEL-SCHAFFER, INC.

  
\_\_\_\_\_  
Ron Beladi, Vice-President

Date: June 29, 2016



**Exhibit "A"**  
**Scope of Engineering Consulting Services**  
**Construction Plans, Bid Documents, Engineering Services during**  
**Construction & CQA Services**  
**Sarno Road Landfill Sequential Closure**  
**Solid Waste Management Department**  
**Brevard County, Florida**

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## **BACKGROUND**

In 2010 the Consultant assisted the County to extend the disposal operations at the Sarno Road Landfill (SRL) and obtain a permit from the Florida Department of Environmental Protection (FDEP) for the sequential and final closure of the Sarno Road Landfill. As part of that permit, the County is required to sequentially close the side slopes where final permitted elevations have been achieved. The disposal operations for the west-slope and a portion of the north-slope covering approximately 11± acres ("Phase II sequential closing area") have been completed and final permitted elevations have been achieved. The purpose of this Task Order is to specify the engineering services to be provided by the Consultant for Phase II sequential closure at SRL. The engineering services will include:

- Prepare construction bid plans and specifications,
- Provide assistance during bidding,
- Provide Construction Quality Assurance (CQA) and construction contract administration services as required by the FDEP, and
- Certification of completion of construction to the regulatory agencies for the construction of the Phase II sequential closure construction at SRL.

## **SCOPE OF SERVICES**

### **Task 100. Project Planning, Management & Coordination**

This task defines the activities to be performed by the Consultant in engineering, coordinating and managing this project. It will provide for project plan and performance schedule; and it will identify the Consultant's project team, reporting requirements of the Consultant and the overall project management plan.

#### **Subtask 101- Project Management Plan & Implementation Schedule**

The Consultant will prepare a Project Management Plan (PMP) that defines project objectives, project staffing and administration procedures, quality assurance and quality control procedures, communication protocol, document control procedures, deliverables review and milestones, scheduling and reporting requirements. A preliminary project schedule with subtasks, duration for each subtask, milestones and task inter-relationships identified will be developed using Microsoft Project and included in the PMP. The final draft PMP will be presented to the County at the project kick-off meeting. The PMP will be revised as appropriate by the Consultant based on

County comments following the kick-off meeting. The PMP and schedule will be updated and used throughout the Project to guide the project team and measure progress.

**Subtask Deliverables:**

1. Draft PMP and project schedule- electronic submittal
2. Final PMP and project schedule- Three (3) hard copy and electronic submittal

**Subtask 102- Project Kick-off Meeting**

The Consultant will prepare for and conduct the project kick-off meeting with County. The draft PMP will be discussed in detail during the meeting. The Consultant will develop a draft agenda for the kick-off meeting and submit it to the County prior to the meeting. The agenda will include general discussion of the potential closure limits, closure cover design, obtaining as-built information, and discussion of subsequent construction timing. The Consultant's Project Manager and Project Engineer will attend the kick-off meeting. A meeting summary will be prepared by the Consultant following the meeting and distributed to meeting attendees.

**Subtask Deliverables:**

1. Draft and final meeting summary - electronic submittal

**Task 200- Construction Plans, Bid Documents & Assistance during Bidding**

**Subtask 201- Construction Bid Documents and Specifications Preparation**

The Consultant will utilize the latest annual aerial and topographic mapping available for the SRL for preparation of the construction plans. The Consultant will also utilize the existing as-built drawings from the construction of the primary storm water system for preparation of the construction plans. It is assumed the as-built drawings will be submitted in AutoCAD format by the County. The Consultant will notify the County whether a special purpose survey is needed if there is any missing information, or verification of spot elevations and structures needed for preparation of the construction plans. County Surveyor will perform any additional special purpose survey needed for the purpose of preparation of construction bid plans.

The Consultant will prepare the construction plans and technical specifications as required for bidding the construction of Phase II sequential closure area of SRL. This will include plans for construction of the final cover of portions of the west and north slopes covering approximately 11± acres where final permitted elevations have been reached, and as directed by the County. The construction plans will include the final grading plan, passive landfill gas collection system and the storm water structures for the initial closure area, along with cross-section drawings, and construction plan details.

The construction documents will also include the technical specifications for contract administration, materials, construction, and construction quality assurance plan as permitted by FDEP. Technical specification will be prepared for general requirements; site work and earthwork; geomembrane liner material, geocomposite drainage net material, storm water piping, inlets, and structures; LFG vents, and other closure features as permitted. The Consultant will update the geomembrane liner material specifications consistent with the specific liner selected by the County.

The Consultant will coordinate with the County and assist with preparation of the front-end contract documents for this project including preparation of project description, contractor pre-

qualifications and other information that the County might need to include in the front-end documents.

The Consultant will submit electronic copies and three (3) hard copies of the construction bid plans and technical specifications to the Consultant at 60% and 90% completion levels for County review and comments. The Consultant will meet with the County following each submittal to receive comments and respond to questions. The Consultant will respond to the County's comments to finalize the construction plans and technical specifications into biddable documents.

A claims avoidance and value engineering review of the plans and specifications will be performed internally by an independent subconsultant prior to submission of the 90% construction bid documents to the County. The purpose of the review will be to identify potential problems including conflicts/coordination issues with plans, technical specifications and front-end general conditions, and identify possible areas of insufficient detail, and reduce to the extent feasible issues that might cause confusion during the bidding process and during construction. A written copy of the review will be provided to the County.

Once the corrections to the 90 percent documents requested by the County have been made the Consultant will submit one (1) electronic copy of the 100 percent construction plans and technical specifications for final approval by the County. The Consultant will then submit five (5) sets of print copies of the final bid plans, and five (5) sets of bound technical specifications to the County for distribution to County staff, plan rooms. In addition, the Consultant will submit two (2) computer disk (DVD) copies of the electronic file of the technical specifications and the plan drawings in PDF format to the County for distribution during bid process.

#### **Subtask Deliverables:**

1. Three (3) sets of construction plans and technical specifications at 60% completion levels for review and comments.
2. Three (3) sets of construction plans and technical specifications at 90% completion levels for review and comments.
3. One (1) copy of independent subconsultant's review report
4. One (1) copy of construction plans and technical specifications at 100% completion level
5. Two (2) computer disk (DVD) copies of the electronic file of the final bid documents, technical specifications and construction drawings in PDF format to the county for distribution during bid process.
6. Two (2) computer disk copies of the electronic file of the final bid documents and technical specifications in Word format (.docx) to the county.
7. Four (4) bound print copies of the final bid documents, technical specifications and construction drawings to the County for distribution to County staff, plan rooms and prospective bidders.

#### **Subtask 202- Probable Construction Cost Estimate and Construction Schedule**

Using the 100% plans, technical specifications, and contract documents, the Consultant will prepare an opinion of estimate of probable project cost based on supplier prices, recent bids and other information prior to bidding of the project. The Consultant will also prepare an estimated construction schedule for this project to estimate and establish the construction time for this project. The detailed estimate of probable cost will follow the bid form format, and can be used as

an evaluation tool for the bids received. The estimate of probable construction cost will be submitted electronically in pdf format.

**Subtask Deliverables:**

1. Final opinion of probable construction cost and estimated construction schedule to the County-electronic submittal

**Subtask 203- Engineering Services during Bidding**

The Consultant will prepare written clarifications to technical questions from bidders for use by the County in preparation of addenda and coordinate responses to bidders' questions with the County during the advertisement period.

The Consultant will attend and assist with the County during a pre-bid conference to meet with prospective bidders and discuss the proposed construction project. Questions regarding the proposed construction project will be addressed informally at the meeting. The Consultant will provide written answers to questions raised at the pre-bid conference and submitted in writing by prospective bidders and assist with preparation of Addenda as necessary.

The Purchasing Department will tabulate the bids, review of the bid package submittals from the bidders, and issue a notice of apparent low bidder. Upon receipt of the pre-qualification documents of the apparent low bidder, the Consultant will evaluate the qualifications of the apparent low bidder and review prior closure projects experience and performance. The Consultant will contact the references provided and prepare a written phone conversation report for each respondent. The review of the apparent low bidder will include an inspection of the bid package for completeness, errors and omissions, evaluation of the listed experience on similar projects, evaluation of other submitted data, and review of the references, and provide a written recommendation of award if appropriate. Review of confidential financial data from the apparent low bidder will be performed by the County. If the apparent low bidder is disqualified or rejected by the County, the Consultant will provide these bid evaluation services for the next lowest, qualified bidder.

The Consultant will attend a meeting with County staff, if needed, to discuss the bid evaluation process and development a recommendation of award.

**Subtask Deliverables:**

1. Written responses to questions and written clarification during the bidding period
2. Draft addenda(s) during the bid advertisement period for use by the county
3. Bid balance evaluation
4. Reference check questionnaire and responses for apparent low bidder, or next lowest, qualified bidder.
5. The Consultant will prepare a letter of recommendation to the County.

**Task 300- General Engineering Services during Construction and Contract Administration Services**

**Subtask 301-General Program Management**

During the construction period, the Consultant will serve as the County's representative providing general engineering, construction oversight, contract management, and administrative services required for the construction project. This will include but not be limited to coordination

of written communications between the Contractor and the County, assisting the County project manager to administer the construction contract, and project progress meeting with County to review construction issues.

**Subtask Deliverables:**

1. Copies of all correspondence and communication in electronic and hard copy

**Subtask 302- Prepare Conformed Contract Documents**

The Consultant will coordinate with the County to incorporate relevant addendums in the project plans and specifications as appropriate to prepare conformed plans and specifications. The Consultant will receive a copy of the contract awarded after the Contractor and County have executed the front-end documents. The Plans, specifications, and front-end documents will be conformed with respect to any addenda and executed contract documents, and packaged into the "Conformed Contract Documents." The Consultant will submit three (3) full size set of conformed Contract Documents and three (3) 11" x 17" copies of the construction drawings to County staff, and one (1) full size set to the County's selected Contractor for use and distribution. The Consultant will also provide two (2) DVD each containing the Conformed Contract Documents in PDF format to the County and one (1) copy to the Contractor at the pre-construction meeting.

**Deliverables:**

1. Three (3) sets of full size Conformed Contract Documents to County and one (1) to the Contractor
2. Three (3) set of 11" x 17" size construction drawings to the County
3. Three (3) DVD containing the Conformed Contract Documents two (2) copies to County and one (1) to Contractor.

**Subtask 303. Pre-construction Conference**

The Consultant will schedule and conduct a pre-construction conference with the Contractor and County. The Consultant will prepare a draft meeting agenda for review and comments by the County and will incorporate County comments prior to distribution of the final version to the project team. The Consultant will attend the pre-construction conference and will digitally voice record the meeting and provide written summary of meeting minutes for electronic distribution to attendees.

**Deliverables:**

1. Draft and final pre-construction conference agenda
2. Written summary of pre-construction conference

**Subtask 304. Shop Drawing Review**

The Consultant will receive shop drawings from the contractor and will prepare a log-in/log-out summary of all shop drawings and documents to be processed for this project. The Consultant will review the shop drawings, including proposed materials and required certifications, submitted by the Contractor and provide a draft copy of the comments for County review prior to finalizing and sending it to the Contractor. The approved shop drawings will be distributed to the Contractor and County at the weekly project progress meeting.

Activities for this task include but not limited to: maintaining and updating of the submittal log-in/log-out record; reviewing shop drawings; reviewing and determining the acceptability of substitute materials proposed by the Contractor; providing review comments and coordinating responses with the County; and transmitting approved copies of shop drawings to the Contractor and County staff.

**Deliverables:**

1. Maintaining/updating shop drawing submittal log
2. Draft and final shop drawing review comments
3. Copies of the approved shop drawing and comments to County and Contractor

**Subtask 305. Field Technical Assistance/ Issue Clarifications**

The Consultant will provide general technical assistance to the Contractor to resolve any unforeseen conditions encountered during construction, provide clarifications and interpretations of the Contract Documents, respond to Contractor requests for information, and make unscheduled site visits to evaluate specific problems or unusual circumstances which may arise.

The Consultant will prepare clarification drawings as may be necessary and will issue these to the Contractor during construction for use by the Contractor. The draft response to technical issues/contract interpretation requests from the Contractor will be reviewed with the County prior to transmitting the final response to the Contractor. The Consultant will maintain a status log of all clarification issues and responses and field orders, and will update the status log for distribution at each weekly meeting.

**Deliverables:**

1. Draft response(s) for County review and comments- electronic submittal
2. Final response(s) to Contractor and County
3. Supplemental drawings, field orders- copies to County and Contractor

**Subtask 306. Construction Progress Meetings**

The Consultant's Project Manager will conduct weekly construction progress meetings with the Contractor and County representatives. The Consultant will prepare a meeting agenda, meeting minutes, updated submittal logs and other documents for distribution and review during the meetings by the County, Contractor and other attendees. The Consultant will voice record the weekly construction progress meetings and if requested by the County, will electronically supply the County and contractor with digitized files of the recordings.

**Deliverables:**

1. Weekly Project Progress Meeting agenda and minutes
2. Updated submittal log
3. Digital recording of construction progress meeting

**Subtask 307. Review Monthly Pay Requests, Updated Schedule & Change Orders**

Based on the Consultant's on-site observations, construction progress meetings, information provided by the County's project manager, and the review of monthly schedule updates and stored materials lists, the Consultant will review the Contractor's draft monthly pay application and recommend to the County project manager the amounts owed to the Contractor.

The Consultant will review the up-to-date as-built drawings and provide review comments to the Contractor to finalize the pay application for further review by the County and certification by the Consultant. If there is any problem with the pay application, the Consultant will review the comments with the County project manager and will coordinate with the Contractor to revise and modify the pay application. The Consultant will certify the final pay application.

The Consultant will obtain a hard copy bar chart and an electronic copy of the Contractor's schedule update along with the pay application and review the progress of work with respect to the pay application.

Whenever there is an unforeseen change in the Contract or the County is requesting a change based on unforeseen site conditions, the Consultant will issue Request for Quote (RFQ) to the Contractor as directed by the County. The Consultant will coordinate with the Contractor to prepare a response to the RFQ and will review and, along with the County, negotiate with the Contractor based on the approved schedule of values and the extent of the County requested change. Once the RFQ is finalized, the Consultant will make a recommendation to the County. Based on County's approval of the final RFQ, the Consultant will assist the County project manager to issue the work change directive or field directive to the Contractor.

The Consultant will maintain a change-in-contract summary log throughout the construction project and distribute the updated log at the construction progress meetings on a monthly basis. The log will document the minor additions or deletions to the contract value and contract time recommended by the Consultant and approved by the County project manager. If the total value of the change(s) exceeds the contingency fund, the Consultant will assist the County in preparation of one (1) change order to the construction contract to reflect changes or deletions requested by the County, and prepare the change order form and back-up documentations for each change item for approval by the County Commission. This task does not include unsolicited Contractor requested change or any claims.

The County will provide the final approval of changes in the Contract. The Consultant has no authority to change the Contract Value or the Contract Time.

**Deliverables:**

1. Review comments on draft pay application and monthly schedule updates
2. Final pay application certification
3. Work Change Directives by County and release to Contractor,
4. Issue RFQ for County initiated changes,
5. Review comments on RFQ value and time changes within the Contingency Allowance
6. Summaries of Change in Contract log and work directive
7. Prepare County's Change Order form and backup documentation for County Presentation to the Board

**Subtask 308. Substantial and Final Inspections**

The Consultant will conduct substantial and final completion inspections in presence of the Contractor and County staff for the project, and will generate and formalize a "punch list" at each inspection event.

The Consultant will notify the County and Contractor, in writing, the results of each inspection and corrective actions required by the Contractor for the project to be considered complete. Based on the satisfactory results of the substantial and final inspections by the Consultant and the

County project manager, the Consultant will recommend, in writing, final payment to the Contractor and give written notice to the County and the Contractor that the work is acceptable.

**Deliverables:**

1. Substantial Completion Checklists and Required Corrective actions,
2. Correspondence with Contractor for Correcting Work in Substantial Completion Punch list,
3. Final Completion Punch list and Follow-up with Contractor, and
4. Recommendation of Work Acceptance and Final Payment Action

**Subtask 309. Record Drawings**

The Consultant will obtain the certified as-built survey drawings from the Contractor (or the Contractor's licensed surveyor) and will prepare record drawings based on the information received from the Contractor and Surveyor. The Consultant will coordinate throughout the construction period to review up-to-date as-built drawings. The Record drawings will be prepared on the Construction drawing base in AutoCAD Format, consistent with the Conformed Drawings. The Consultant will submit two (2) sets of computer disks containing Record drawing files with a directory of contents in AutoCAD and PDF format, and three (3) sets of signed and sealed Record drawings prints to the County.

**Deliverables:**

1. Two (2) sets of CD containing Record Drawing files (PDF and AutoCAD),and
2. Three (3) sets of signed and sealed Record Drawings.

**Task 400 - Support Services during Construction**

**Subtask 401. On-Site Technical Project Representation**

The Consultant will provide full-time Technical Project Representation (TPR) Services during the construction period. The Consultant's TPR will work with the County's on-site project manager to observe the Contractor's construction and to verify that the project is constructed in accordance with the conformed plans and specifications, including the Construction Quality Assurance Plan (CQA Plan). The Consultant's representative(s) designated for this field observation will be considered the Consultant's TPR for compliance with the permit conditions and CQA Plan. The TPR is budgeted for 60 hours per week for a period of 18 weeks (total of 1080 man-hours). It is assumed the TPR will be on-site during liner component installation. The TPR will be qualified to perform, and complete the following activities and services:

- Attend meetings with the County and Contractor, such as weekly and monthly progress meetings, pre-installation or specialty conferences and other project-related meetings.
- Compile and maintain daily reports of weather, site conditions, daily activities, manpower onsite, machinery being used, and inventory of materials received.
- Observe the work in progress to determine if the work is, in general, proceeding in accordance with the Contract Documents.
- Report to the Consultant's Project Manager and County's construction coordinator whenever TPR believes that any work is unsatisfactory, faulty or defective; does not conform to the Contract Documents; has been damaged; or does not meet the requirements of CQA Plan. The TPR will advise the Consultant's Project Manager and County's construction coordinator regarding work that should be corrected or rejected;

- uncovered for observation; or requires special testing, inspection or approval.
- Monitor, coordinate and document implementation of the CQA/QC Plans, including activities related to quality control of handling, storage and installation of liner and protective cover as outlined in the duties of the designer's field representative described the CQA Plan, and in compliance with the permit requirements.
- Review the efforts and activities of the CQA laboratory and review test results for conformance.
- Review of Manufacturer's Quality Control Certificates for the geomembrane.

#### **Subtask 402. Coordination & Construction Materials Testing**

The Consultant will monitor the Contractor's geotechnical testing laboratory and CQC subcontractor employed to perform construction quality control (CQC) field and laboratory materials testing during construction. The Consultant will obtain and coordinate the services of an independent testing laboratory to perform construction quality assurance (CQA) testing required by the FDEP construction permit. This includes CQA documentation for the cover system materials, deployment and installation in accordance with the CQA Plan, Contract Documents and FDEP permit. The CQC and CQA testing to be performed by the independent laboratories and monitored by the Consultant include the following activities and field and laboratory testing:

- Soil gradation tests, proctor tests, permeability tests
- Friction angle test of proposed materials, if needed
- Geomembrane destructive and non-destructive testing
- Non-destructive testing by the Geomembrane Installer
- Field and laboratory conformance testing on geomembrane
- Field and laboratory granular fill testing
- Field compaction testing
- Field and laboratory concrete testing
- Manufacturer's Quality Control Certificates for the geomembrane.

The field and laboratory testing is based on requirements of the permitted CQA document. Detailed descriptions and frequencies of field and laboratory testing during construction will be based on the FDEP approved CQA plan. The contract documents will be prepared to require the Contractor to pay for the CQC testing. The cost to the Consultant for independent CQA testing is budgeted and included in this task order. The Consultant will invoice the County only for the actual cost of the laboratory services and shipping cost. The Consultant will obtain further written authorization from the County if the testing and shipping cost exceeds the budgeted amount.

#### **Subtask 403 - Prepare CQA Report & Certification of Construction Completion to FDEP**

The results of the CQC and CQA Testing and any minor deviations from the specifications will be documented in a CQA Report prepared by the Consultant to be submitted to FDEP along with other requirements for the Certification of Completion of Construction. This Report will include a summary of documented control program of the geomembrane installation, QA/QC testing locations and various testing procedures, the signed and sealed results of laboratory analyses, as well as, other Permit requirements for Construction Quality Assurance Report.

The Consultant will compile other required construction data including copies of related Contract Clarification and Interpretation Request Forms (CCIR) from the Contractor and Consultant's response if deviated from the permitted specifications and as-built drawings along with the CQA

Report to prepare the Application for Certifications of Completion of Construction. The Consultant will submit two (2) copies of the draft report to the County for review and comments. The Consultant will incorporate County's comments into the final report and submit one (1) paper copy of the final signed and sealed document to the County and forward two (2) copies to the FDEP as part of the Certification of Completion of Construction process. The Consultant will produce a CD containing the electronic file of the submittal and will include a CD copy with each copy of the submittal.

The Consultant will notify FDEP of construction completion, and in accordance with the Permit conditions will coordinate and schedule a formal site visit by the regulatory agency personnel after the submittal of the Certification documents.

The Consultant will attend the site visit meeting with FDEP, and conduct a walk-through of the construction projects with FDEP personnel. The Consultant will respond to FDEP requests for additional information to obtain the Certifications of Completion.

#### **Deliverables:**

1. Five (5) sets of construction certification documents for County and FDEP.
2. One (1) complete copy of the project construction documents for County records.
3. Two (2) sets of CD containing CQA Report, and Record Drawing files

#### **Schedule**

The Consultant's Scope of Work and fee for this Task Order is based on 140 days overall construction period starting from the date of pre-construction conference until Final inspection of the construction completion. If the construction period exceeds this duration, further authorizations may be required from the County. The Consultant will obtain written authorization from the County prior to performing any services beyond the above-described scope of services.

#### **Assumptions**

- The budget for the Consultant's TPR services is based on 18-weeks up to 60 hours per week for a total of 1080 man-hours. If the County decides that this service is not needed, the budget for this Task Order will be reduced. The Consultant will only invoice for the TPR man-hours requested by the County. If the Contractor's construction activities for liner installation are anticipated to go beyond the authorized hours, the Consultant will inform the County in writing for further authorization.
- The \$17,000.00 budget for construction material quality assurance testing including the cost of shipping and testing the geomembrane coupons is included in Task 300 budget. The Consultant will submit a copy of the testing laboratory invoices plus the shipping cost invoice to the County along with monthly invoices. The Consultant will obtain written authorization if the testing and shipping cost exceed the budgeted amount.
- Claims negotiation and dispute resolution, as well as, arbitration, litigation, expert witness and/or other activities involving additional parties are specifically excluded from this Scope of Work. For the purpose of this Task Authorization, a claim is described as a request by the Contractor to change the Contract that is not in response to an Owner requested initiated Request for Proposal.

