



Buncombe County Board of Commissioners

Request for Board Action

Meeting Date: 8/6/2019

Consent Agenda

Department: Solid Waste

Presenter(s):

Contact(s): Dane: 828-545-8258

Subject: Expansion of Landfill Cell 6 Leachate Recirculation Injection Trenches

Brief Summary: Following a Request for Qualifications (RFQ) Process, SCS was approved by the Board of Commissioners to provide prime engineering services for the Buncombe County Solid Waste Department. SCS and Buncombe County executed a formal agreement on August 23rd, 2018 and all subsequent and proposed engineering work has been approved via Task Orders.

Under this Task Order Number 19-20, SCS Engineers to provide engineering, State permitting, and construction quality assurance services for an expansion of the leachate recirculation horizontal injection trenches in the landfill cell 6 disposal area.

Recommended Motion & Requested Action: Approval for County Manager to sign and execute SCS Task Order Number 19-20 in the amount of \$58,287.00

County Manager's comments and Recommendation:

EXHIBIT C
Task Order Number 19-20
Expansion of the Landfill Cell 6 Leachate Recirculation Horizontal Injection Trenches
Buncombe County Solid Waste Department

SCOPE OF SERVICES

Scope of Work Description

SCS Engineers, P.C. (SCS) will provide engineering, State permitting, and construction quality assurance services for an expansion of the leachate recirculation horizontal injection trenches (HITs) in the landfill Cell 6 disposal area. The expansion will be installed at roughly elevation 2,100 feet in Cell 6. Leachate recirculation HITs were previously installed at approximate landfill elevation 2,060 feet.

We have divided our services for the expansion into four (4) tasks from the design and construction documents preparation to the construction and completion of the project. The tasks are further described as follows:

Task 1 – Design and Construction Documents Preparation

SCS will design the leachate recirculation horizontal injection trenches (HITs) in Cell 6 at roughly elevation 2,100 feet. The design will consist of positioning the trenches to maximize leachate recirculation into the Cell 6 waste mass, including offsetting the trench locations from the previously installed trenches. To make the Cell 6 HITs components consistent, we intend for the design on using similar components used for the previous HITs project in the landfill cell.

We will review the proposed design of the HITs with Buncombe County Solid Waste Department and any other project stakeholders. Review input and changes will be incorporated into the design before finalizing. As a final product for this task, construction drawings and technical specifications will be provided to the Buncombe County Solid Waste Department. A basis of design document including any design calculations and assumptions will be included with the final product delivery.

Task 2 – State Permitting

SCS will submit the Task 1 prepared construction documents and other necessary information to the North Carolina Department Environmental Quality (NCDEQ), Solid Waste Section (SWS) for inclusion in the landfill's solid waste permit. We will coordinate with the landfill's NCDEQ SWS Permitting Engineer and respond to comments as necessary for issuance of regulatory approval of the project.

Task 3 – Construction Quality Assurance (CQA)

SCS will provide management and oversight during construction of the leachate recirculation horizontal injection trenches (HITs) in Cell 6. This includes being on site when construction activities are occurring to observe and document construction activities for conformance with the construction drawings and technical specifications.

We propose having one qualified CQA technician on site when construction field activities are occurring. Construction will be phased with an estimated two (2) separate construction events to complete the Cell 6 HITs. This equates to an estimated total duration for our CQA technician being on site is 120 hours, 60 hours per construction event.

The CQA management and oversight services at a minimum will include:

- Review Contractor's material submittals and shop drawings for conformance with the construction drawings and technical specifications. In addition, review construction quality assurance (CQA) testing results for conformance. CQA testing will include installed pipe pressure testing and pipe welding temperature verification.
- Provide support to the contractor and owner during construction by addressing any changes, problems or obstacles identified during construction.
- Prepare quality assurance actions and check lists to cover elements of the project, identifying the tasks required to provide conformance with project requirements.
- When on-site, the CQA technician will monitor construction for accuracy with the construction drawings and technical specifications and with good construction practices.
- Observe installed pipe pressure testing for conformance with the construction drawings and technical specifications.
- Convey technical questions and/or minor changes to the design engineer and contractor.
- Prepare field reports, summarizing construction activities and noting critical milestones.
- Prepare a photograph record of the constructed work.
- Periodically inform the Buncombe County Solid Waste Department of the progress with construction.

At the conclusion of construction we will prepare as a deliverable to the Buncombe County Solid Waste Department a CQA report providing a written summary of construction activities, CQA field technician field reports, correspondence, approved material submittals and shop drawings, CQA testing results, construction photographs, certificates and warranties, and as-built drawings. SCS will contract with a local NC licensed surveyor to record constructed items for the as-built drawings.

Task 4 – Cell 6 Bioreactor Landfill Operations Support

SCS will review the previously prepared Cell 6 leachate recirculation HITs operation procedures and update to include the additional HITs. This will include updating the spreadsheet for the leachate recirculation loading rates.

Assumptions

This proposal and fee estimate include the following assumptions:

- Landfill gas collection will not be incorporated in the HITs design and construction documents.
- No temperature monitoring system will be included with the HITs design.
- Construction of the HITs will be done in phases, estimated in two (2) separate events. Each construction event is estimated to last one to two weeks.
- Most recent and available Cell 6 topography will be used in the design.
- SCS will contract with a local NC licensed surveyor for construction as-built surveying.
- No regulatory fees are included.

Deliverables and Schedule

Task 1 deliverable will be construction drawings and technical specifications and a basis of design document that includes any design calculations and assumptions made as part of the design. The Task 1 scope of work will be completed within 30 days of receiving a notice to proceed from Buncombe County Solid Waste Department.

Task 2 deliverable will be the Task 1 prepared construction documents and other necessary information submitted to the North Carolina Department Environmental Quality (NCDEQ), Solid Waste Section (SWS). The submittal to NCDEQ SWS will occur within 7 days of the Task 1 scope of work completion and upon authorization from Buncombe County Solid Waste Department.

Task 3 deliverable will be a CQA report including as-built construction drawings. CQA field activities are estimated to occur in one to two week intervals for two (2) construction events. The CQA report and as-built drawings will be provided to Buncombe County Solid Waste Department within 14 days following completion of construction and receipt of the as-built field survey.

Task 4 deliverable will be updated leachate recirculation HITs operation procedures including the leachate recirculation loading rates for Cell 6. This will be provided to Buncombe County Solid Waste Department within 14 days of construction completion.

Compensation

Compensation to the Contractor for services performed under this Task Order will be in accordance with the time and materials invoice method and shall be based upon the fees as set out in the Agreement.

SCS ENGINEERS, PC proposes to complete this Task for a fee of \$58,287. This fee, which is based on the assumptions provided in this Task Order proposal, shall not be exceeded without written authorization from the County.

<p>BUNCOMBE COUNTY BOARD OF COUNTY COMMISSIONERS</p> <p>By:</p> <p>_____</p> <p>(Signature)</p> <p>_____</p> <p>(Printed Name)</p> <p>_____</p> <p>(Title)</p> <p>_____</p> <p>(Date)</p>	<p>CONTRACTOR SCS ENGINEERS, PC</p> <p>By: <i>Albert Glenn</i></p> <p>_____</p> <p>(Signature)</p> <p>Albert Glenn, PE</p> <p>_____</p> <p>(Printed Name)</p> <p>Project Director</p> <p>_____</p> <p>(Title)</p> <p><i>2/12/2019</i></p> <p>_____</p> <p>(Date)</p>
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THIS INSTRUMENT HAS BEEN PRE-AUDITED IN THE MANNER REQUIRED BY THE LOCAL GOVERNMENT AND FISCAL CONTROL ACT

Finance Director

Approved as to form

County Attorney/County Staff Attorney