

**Action Requested/Required:**

- ☐ Vote/Action Requested  
☒ Discussion or Presentation Only  
☐ Public Hearing  
Report Date: \_\_\_\_\_  
Hearing Date: \_\_\_\_\_  
Voting Date: \_\_\_\_\_

**Department:** Community Development**Presenter(s) & Title:** Bethany Watson

City Engineer

**Agenda Item Title:**

Discussion on the Proposal for Great Sky Pump Station Odor Control Design from Black & Veatch in the estimated amount of \$259,485.00

**Summary:**

Under Task Order 11, Black & Veatch (BV) performed a study to monitor odors at the Great Sky PS and determine whether the various mitigation measures are effective at reducing odors. In BV's technical memorandum dated July 9, 2024, the study recommended two near-term options, both of which have been implemented. The study also recommended two long term options. Currently, the City is still receiving complaints regularly and has decided to move forward with Alternative 2 and has asked BV to provide a proposal for design and bidding services. The engineering services include preliminary investigations, field surveys, design and construction documents, and bid and pre-award services. The design is expected to take 6 - 8 months.

**Budget Implications:**Budgeted? ☐ Yes ☐ No ☐ N/A

Total Cost of Project: \$ 259,485.00

Check if Estimated ☐Fund Source: General Fund ☐ Water & Sewer ☐ Sales Tax ☐ Other: \_\_\_\_\_**Staff Recommendations:**

Staff recommends approval on the Proposal for Great Sky Pump Station Odor Control Design from Black & Veatch in the estimated amount of \$259,485.00

**Reviews:**Has this been reviewed by Management and Legal Counsel, if required? ☐ Yes ☐ No**Attachments:**

Great Sky Pump Station Odor Control Design Proposal

PROPOSAL FOR

# GREAT SKY PUMP STATION ODOR CONTROL SYSTEM DESIGN

PREPARED FOR



City of Canton

11 NOVEMBER 2025



## PROFESSIONAL DESIGN SERVICES APPENDIX A – SCOPE OF SERVICES

Owner: City of Canton  
Consultant: Black & Veatch Corporation  
Project: Great Sky Pump Station Odor Control System Design

### 1.0 PROJECT DESCRIPTION

The Great Sky Pump Station (GSPS) is located on Great Sky Parkway, as shown on the aerial map:

*Aerial Map*



Source: Google Map

Commissioned in 2004, the GSPS pumps wastewater flows from the Great Sky subdivision to a gravity sewer upstream of the Pea Ridge PS. Flows from this station flow downstream to the Culwell PS. The GSPS is a duplex pump station equipped with two Flygt submersible pumps each rated at 235 gpm and total dynamic head of 113 feet. The pumps are located within a 12-foot diameter, 22 feet deep wet well with a capacity of 18,600 gallons.

The Great Sky subdivision is served by a low-pressure wastewater sewer system. Each home is equipped with a small grinder pump station to convey the wastewater system through the transmission system to the GSPS. As the subdivision has grown over the years, more homes have been connected to the low-pressure system. One of the consequences is that significant

unpleasant odors have been reported by Great Sky residents that are emanating from the GSPS. The odor complaints have been reported for several years. This is due to wastewater turning septic in the low-pressure system before getting to the GSPS.

Operations staff from the City of Canton have installed various mitigating measures to help address the odor complaints. In 2023, one of the measures was to install a Wet Well Wizard aeration system which pumps diffused air into the wet well. Another measure was to install a passive absorber system. There had been fewer odor complaints since the installation of the Wet Well Wizard and passive absorber system.

Under Task Order 11, Black & Veatch (BV) performed a study to monitor odors at the Great Sky PS and determine whether the various mitigation measures are effective at reducing odors. In BV's technical memorandum dated July 9, 2024, and entitled "Great Sky Pump Station Odor Monitoring Study", these were the following key field findings:

- Average inlet H<sub>2</sub>S concentration was 105 ppm
- Peak inlet H<sub>2</sub>S concentration was 220 ppm
- When the aeration unit is on, H<sub>2</sub>S concentrations are significant and can contribute to odor impacts near GSPS.
- When the aeration unit is on, odorous air release is continuous.
- Wastewater sulfide levels are significant – aeration is not fully stripping out sulfides.
- Fugitive odors are likely escaping wet well prior to treatment.
- One air grab sample indicating presence of methyl mercaptan was not conclusive, but other compounds may be contributing to odor impacts.
- Aeration unit prevents fats, oils and grease (FOG) cap formation, FOG cap quickly reforms when unit is off.

The study recommended two near-term options:

- Replace existing wet well covers with new aluminum covers
- Install rubber matting over the existing wet well covers

The study recommended two long term options to ventilate the wet well headspace and treat the exhaust with a new odor control system to provide greater reduction of odor and corrosion:

- Alternative 1: Install an active adsorber suited for high strength H<sub>2</sub>S loadings.
- Alternative 2: Install a hybrid system combining biotrickling filtration and dry adsorption in a single vessel.

Based upon a life cycle cost analysis Alternative 2 had a significantly lower net present worth.

Following the completion of the study, operating staff implemented the above near-term options in addition to operation of the aeration unit and passive absorption system. However, operation of the existing passive absorption system was ceased due to the high frequency of media replacement and associated significant cost.

In 2025, City of Canton has received regular odor complaints from Great Sky residents. The City of Canton has decided to implement one of the long term options, Alternative 2.

## 1.1 PROJECT DESCRIPTION

- A. The Scope of Services described in this attachment is to be performed by Consultant for the Great Sky Pump Station Odor Control Design project. The services include the following:
  - i. Project Administration
  - ii. Site Investigation and Subconsultants
  - iii. Preliminary design.
  - iv. Detailed design.
  - v. Bid phase services
- B. **References.** The need for the project is further described in the technical memorandum dated July 9, 2024, and entitled "Great Sky Pump Station Odor Monitoring Study Technical Memorandum".
- C. **Project Elements.** Project facilities to be realized under one construction and procurement package:
  - i. Installation of erosion control measures.
  - ii. Site preparation including minor grading.
  - iii. Construction of a reinforced concrete pad.
  - iv. Procurement, manufacture, delivery, installation, testing and commissioning of a new biotrickling filter and dry media system – sized to handle an exhaust rate of 600 cfm (12 changes per hour) and remove average inlet H<sub>2</sub>S concentrations of 105 ppm and peak inlet H<sub>2</sub>S concentration of up to 220 ppm. Equipment vendors will be limited to ECS, Biorem, BioAir and Daniel Mechanical.
  - v. Radio telemetry to link to provide remote SCADA control at Canton Wastewater Treatment Plant.
  - vi. Removal of the existing passive absorber system, Wet Well Wizard, and other legacy superseded equipment and transfer to other Owner facilities or disposal.

## 1.2 SCOPE OF SERVICES DESCRIPTION

The engineering services include preliminary investigations, field surveys, design and construction documents, and bid and pre-award services. Services do not include construction phase services, operation and maintenance manuals, start-up services, commissioning, and personnel training. These services will be further defined in specific phases of the work that follow.

### 1.3 START OF SERVICES

Work under this task order will start on execution of this Agreement, and work under any other task order addenda will not proceed until Owner has authorized the Consultant in writing to proceed.

## 2.0 TASK 100. PROJECT ADMINISTRATION

- A. Project Administration - Consultant to provide the following services:
  - i. Provide administration and management of project, including monitoring budget and schedule, review of ongoing activities, review progress with Owner, and discuss issues with Owner as they are noted.
  - ii. Provide project management to coordinate activities of the project team and to provide overall project direction to meet Owner's objectives. Coordinate communication with Owner.
  - iii. Monthly project reporting and invoicing
- B. Meetings
  - i. Project Initiation – Conduct a project initiation meeting to clarify Owner's requirements for the project, review project staffing and organization, present initial work plan, including initial work schedule. For budget purposes, one (1), 2-hr in-person meeting held at the Owners office is included.
  - ii. Design Review meetings listed below in Task 300 and 400. For budgeting purposes, two (2), 2 hour in-person meetings held at the Owners office are included.
  - iii. Periodic site visits during design listed below in Task 200 and 300
- C. Deliverables
  - i. Kickoff meeting summary
  - ii. Project progress report summaries and invoices
- D. Agency Consultation

Consult with agencies including Georgia EPD concerning the project to determine their requirements.
- E. Progress Review. Participate in informal meetings with the Owner to review progress and exchange ideas and information. One virtual meeting per month is included.
- F. Potential Scope Adjustment

In the event there is consideration to change the scope of the project, the Engineer will develop and present a potential scope adjustment (PSA) to the Owner. This document will itemize the potential change(s) in scope, detail the anticipated cost impact on both the Engineer's work as well as for the project construction, and indicate any anticipated

changes in the initial project schedule. Owner will provide direction to Engineer on the implementation of any PSA's and both parties will endeavor to negotiate the scope adjustments to the design phase authorization to address any approved PSAs in accordance with the Owner's Policies and Procedures.

### 3.0 SCHEDULE

Scope of Services is anticipated to be performed as shown below.

Project Administration	November 2025 – July 2026
Site Investigation and Subconsultants	December 2025
Preliminary Design	February 2026 – March 2026
Detailed Design	April 2026 – June 2026
Bid Phase Services*	July 2026
Construction Duration	To be determined

### 4.0 TASK 200. SITE INVESTIGATION AND SUBCONSULTANTS

#### 4.1 EVALUATE EXISTING FACILITIES

- A. Visit Great Sky Pump Station and assess existing facilities
- B. Review existing drawings, reports and other information from Owner's files.
- C. Review flow records to determine history of flows regarding volume, characteristics, and flow patterns.
- D. Prepare description of existing facilities.

#### 4.2 SURVEYING SERVICES

- A. Topographic Survey
  - i. Consultant to arrange a subcontract to perform a topographic survey of the project site.



- a. Establish benchmarks based on USGS datum.
  - b. Pump station structures will be surveyed for finish floor, top of wall, and bottom of wet well where possible. Interior wet well elevations and dimensions will be determined.
  - c. Interior piping will be surveyed at wall penetrations and key directional changes. Smaller piping, conduits, ductwork, and other similar components will not be surveyed.
- B. Geotechnical Services:
- i. Consultant will arrange a subcontract to perform geotechnical engineering services including exploratory work, laboratory and field testing, and professional guidance on tests to be made and an initial geotechnical report by a qualified geologist or geotechnical firm interpreting the data on the exploratory work and testing.
  - ii. Perform subsurface utility engineering (SUE) at selected locations to accurately locate buried water, sewer, gas lines or other utilities. SUE will be in accordance with CI/ASCE 38-02
  - iii. Subcontractor to prepare a preliminary geotechnical report.
  - iv. Subcontractor to prepare final geotechnical report.

## **5.0 TASK 300. PRELIMINARY DESIGN**

### **5.1 DESIGN DEVELOPMENT REPORT**

A Design Development Report (DDR) will be prepared documenting the following:

- A. Process Design Criteria
- B. Alternatives Analysis Summary
- C. Discipline Design Criteria
- D. Project Implementation Plan
- E. Permitting Requirements
- F. Opinion of Probable Construction Cost (AACEI Level 4 Estimate)
- G. Preliminary Drawings and Specification List
- H. The following preliminary drawings will be included as an appendix to the DDR:



- i. General
  - ii. Sheet List
  - iii. Site Plan
  - iv. Facility Demolition Plan
  - v. Facility New Equipment and Piping Plan
  - vi. Electrical Power Distribution Functional Diagram
  - vii. P&IDs
- I. A Design Review meeting will be held to review the DDR.
  - J. After addressing comments from Owner, the DDR will be submitted to Georgia EPD for review. Consultant will address any comments and resubmit the DDR for final approval.

## **6.0 TASK 400. DETAILED DESIGN**

- A. Prepare documents for one construction contract including procurement of the biotrickling filter and dry media system.
- B. The construction contract documents shall be prepared for selection of private construction contractors on a competitive bid basis.

### **6.1 DETAILED DESIGN – GENERAL**

- A. As part of the Detailed Design Services, Consultant shall produce interim documents for the purpose of review by Owner's staff and Consultant's quality control. The interim documents shall serve as milestones wherein certain features shall be fixed after a period of Owner review. The purpose of the interim documents and fixing certain features shall be to communicate the design progress and avoid later revisions that would impact design efficiency and Project cost and schedule. Changes made after fixing features will be considered Supplemental Services.
- B. As part of the Detailed Design Services, Consultant will develop Opinions of Probable Construction Cost (OPCC). All OPCC developed will follow the recommendations of the Association for the Advancement of Cost Engineering (AACE) International Recommended Practice No. 18R and accepted industry guidelines with regard to methodology and accuracy. Since Consultant has no control over the cost of labor, material, or equipment furnished by others not under contract to Consultant, Consultants' opinion of probable cost for construction of the work will be made on the basis of experience and qualifications as an Engineer. Engineer does not guarantee or warranty that proposals, bids, or actual project costs will not vary from Engineer's opinions of probable cost.

- C. Drawings will be prepared based on Consultant's drafting standards on 22" x 34" size sheets. The Owner's applicable standard details available and current at the time of the work will be utilized. Where applicable Owner standard details are not available, Consultant's standard details will be utilized. The technical specifications will be based on Consultant's standards and customized for the project.

- D. Owner-Furnished Front-End Documents

Obtain and review Owner-furnished front-end documents, general conditions, special conditions, standard specifications, and standard details.

- E. Permitting

Communicate with Owner's personnel and Georgia EPD to obtain requirements for public protection to be included in contract documents.

- F. Anticipated Drawing List

Cover Sheet  
Civil -Index of Drawings  
Legend  
Abbreviations  
General Notes  
Sitework Overall Plan  
Sitework Grading Plan  
Sitework Paving Plan  
Structural General Notes and Loading Criteria  
Structural – Plan and Section  
Structural – Details  
Mechanical – Legend and Abbreviations  
Mechanical – Odor Control Plan  
Mechanical - Odor Control Enlarged Plan  
Mechanical – Odor Control Sections 1  
Mechanical – Odor Control Sections 2  
Mechanical – Details  
Mechanical – Isometric  
Electrical – Legend and Abbreviation  
Electrical – Site Plan  
Electrical – Power One-Lines  
Electrical – Details  
Electrical – Schedules  
Electrical – Duct Bank Cross Sections and Schedule  
Electrical – Area Classification  
Electrical – Power Plan  
P&ID Legend & Abbreviations Sheet 1 of 3

P&ID Legend & Abbreviations Sheet 2 of 3  
P&ID Legend & Abbreviations Sheet 3 of 3  
P&ID – Odor Control System  
Instrumentation Installation Details  
Network Diagram  
Panel/Radio Details

G. Anticipated Specification List

Consultant will prepare Division 16 specifications.

**6.2 DETAILED DESIGN – CONSTRUCTION CONTRACT DOCUMENTS 90%**

- A. Detailed design is to commence only after Owner has accepted the Design Development Report. Construction contract documents 90% progress review meeting deliverables are as follows:
- i. Draft front-end documents
  - ii. Vertical control sketches
  - iii. Pump station and odor control system P&ID drawings
  - iv. Equipment control descriptions
  - v. Existing site plan
  - vi. General site arrangements and yard piping drawings
  - vii. Instrumentation input and output lists
  - viii. Instrumentation device schedules
  - ix. Major facility plans and sections showing equipment and piping
  - x. Preliminary structural design
  - xi. Process equipment specifications and data sheets
  - xii. Valve list
  - xiii. Internal quality control review and refinement before submittal to Owner
  - xiv. Update quality assurance and quality control plan and log
  - xv. Project schedule update
  - xvi. Opinion of probable construction cost update

- B. Provide one electronic copy (PDF) of drawings and specifications to Owner for distribution and review.
- C. Attend one meeting with Owner to receive and discuss Owner's review comments.
- D. Revise documents as necessary to reflect decisions taken at this level.

### **6.3 REGULATORY AGENCY SUBMITTAL**

- A. Assist Owner with filling forms required for submittal to regulatory agencies. Owner will sign forms.
  - i. Owner will provide payment of any regulatory fees.
  - ii. Regulatory fees will be paid by Engineer.
- B. Provide up to one hard copy sets of final documents (half-size) and up to one hard copy sets of final documents (full-size).
  - i. Consultant to submit to regulatory agencies for approval.
  - ii. Engineer to submit on behalf of Owner to regulatory agencies for approval.
- C. Coordinate with Owner and regulatory agencies to discuss review comments.
- D. Nominal comments from the regulatory agencies will be addressed via response letter and may include a few updated drawings sheets, effort for which is included. Should the regulatory agencies require multiple rounds of submittals or extensive changes to the documents, this would be considered Supplemental Services.

### **6.4 DETAILED DESIGN – CONSTRUCTION CONTRACT DOCUMENTS 100%**

- A. Revise documents with final Owner and regulatory agency comments. This is the Bid Set.

## **7.0 TASK 500. BID AND PRE-AWARD SERVICES**

Assist and advise Owner in advertising for a single prime contract for construction, materials, equipment, and services.

### **7.1 ADVERTISEMENT**

- A. Front End Documents. Assist and advise Owner to finalize front end documents and identify:
  - i. Project advertisement date.

- ii. Date to receive bids.
- iii. Format of bid sets.
- iv. Method of document reproduction and distribution of bid sets.
- v. Number of bid sets to be reproduced.
- vi. Amount to be charged for bid sets.
- vii. Method of advertisement.
- viii. Reproduction and distribution needs for associated documents such as:
  - a. Reference documents.
  - b. Addenda.
- B. Invitations to Bid. Assist and advise Owner in placing the Invitation to Bid. Identify potential contractors and suppliers, review with Owner, and distribute copies of Invitation to Bid. Maintain a record of prospective bidders to whom invitations have been sent.

With Owner approval, advertisement may proceed prior to receipt of all regulatory approvals.
- C. Reproduction. Support Owner's procedures for reproducing bid documents with these services included:
  - i. Provide one electronic copy for Owner's use in reproducing bidding documents:
    - a. Project Manual (Front end documents and technical specifications)
    - b. Construction contract drawings
    - c. Addenda
- D. Distribution. Support Owner's procedures for distribution of construction contract documents by providing these services that are included:
  - i. Owner will handle all aspects of bidding document distribution.
  - ii. Receive deposits for construction contract documents.
  - iii. Distribute construction contract bidding documents, geotechnical report, and addenda to prospective bidders and suppliers
  - iv. Distribute plan holders list to recipients of contract documents prior to bid opening.

## **7.2 PRE-BID CONFERENCE**

Conduct, at a date and time selected and a place provided by Owner, a pre-bid conference to:

- A. Confirm the types of information required by the contract documents and the format in which bids should be presented.
- B. Review special project requirements and contract documents in general.
- C. Receive requests for interpretations that will be issued to plan holders.
- D. Prepare minutes of conference and issue to plan holders.

## **7.3 INTERPRETATION OF BIDDING DOCUMENTS**

- A. Prepare and issue addenda to the construction contract documents when required. For the purposes of this scope and fee estimate, it is assumed there will be no more than two addenda.
- B. Consult with and advise Owner to determine the acceptability of substitute materials and equipment proposed by Bidders when substitution prior to the award of contracts is allowed by the Contract Documents.

## **7.4 BID OPENING**

For the purposes of this scope and fee estimate, it is assumed that Consultant will not attend the bid opening.

- A. Following the bid opening, Consultant will assist Owner to answer questions, review Owner's tabulation of bids, and assist with review of questionnaires and bids for completeness.

## **7.5 PRE-AWARD SERVICES INCLUDED**

The level of effort for pre-award services involving well-qualified bidders and suppliers will generally be low. For the purposes of this scope and fee estimate, eight (8) work hours are included. The following services are included:

- A. Questionnaire. Examine the bid questionnaire(s) to identify any supplier whose equipment or materials may not conform to the construction contract documents. This examination will be based on the knowledge and experience of the Consultant.
- B. Qualifications of Apparent Successful Bidder. Review and evaluate the qualifications of the apparent successful bidder and the proposed major or specialty subcontractors. The review and evaluation may include financial resources, and reference checks on previous experience.

- C. Bid Tabulations. Prepare and distribute formal bid tabulation sheets, evaluate bids, and make written recommendations to Owner concerning contract award.

#### **7.6 PRE-AWARD SERVICES TO BE PROVIDED AS SUPPLEMENTAL SERVICES**

- A. If the apparent successful bidder is not well qualified or if substantive changes to the design are proposed by the Bidder or the Contractor after award, substantial and unpredictable levels of effort by Engineer might be required to resolve issues. These services are to be provided as supplemental services according to Owner's request.
- B. Apparent Successful Bidder's Requests for Review. Review data regarding materials and equipment submitted by the apparent successful bidder to determine acceptability when the review is required by the bidding documents subsequent to bid opening and prior to award of contract.
- C. Evaluate Change Requests by Contractor. Review, evaluate, and submit comments to Owner concerning equipment performance data submitted by the Contractor. These services may include review of building design changes required to accommodate the proposed equipment; installation requirements and related engineering, training, and operating costs; the experience and performance record of the manufacturer; availability of service personnel; and operating and maintenance costs.

#### **7.7 AS BID CONSTRUCTION CONTRACT DOCUMENTS**

- A. Refine construction contract documents according to addenda, which may be simply including addenda in the front of the Project Manual without editing. Contractor's bid forms may be substituted for the blank forms in the electronic copy.
- B. Provide the As-Bid Contract (Conformed) Documents to the Owner in electronic format. Owner will distribute electronic and hard copy Contract Documents to the Contractor.

#### **8.0 SUPPLEMENTAL SERVICES**

Certain assumptions have been made in preparing this Scope of Services. To the extent possible, they are stated herein and are reflected in the budget for services. If the work tasks or level of effort required are different from the assumptions presented, or if the Owner desires additional services (Supplemental Services), the resultant change may serve as a basis for modifying the Agreement as agreed upon by both the Owner and Consultant.

Supplemental services are not in the scope of work for this contract. These services will be performed at Owner's request with compensation adjustments. Supplemental services that Owner might choose to add to the scope of services include, but are not limited to, the following items:

- A. General



- i. Assistance in financially related transactions for the project.
  - ii. Safety Assessments.
  - iii. Security Assessments.
  - iv. Value Engineering reviews and services.
  - v. Revision of designs, drawings, and specifications to incorporate changes arising from Value Engineering review.
  - vi. 3D modeling.
  - vii. Renderings or photo realistic drawings.
  - viii. Establishing a project communications site.
  - ix. Prequalification of contractors or vendors.
  - x. Additional meetings with local, State, or Federal agencies to discuss the project.
  - xi. Additional appearances at public hearings or before special boards.
  - xii. Supplemental engineering work required to meet the requirements of regulatory or funding agencies that become effective subsequent to the date of this agreement.
  - xiii. Special consultants or independent professional associates requested or authorized by Owner.
  - xiv. Assistance with bid protests and rebidding.
  - xv. Preparation for litigation, arbitration, or other legal or administrative proceedings; and appearances in court or at arbitration sessions in connection with bid protests, change orders, or construction incidents.
  - xvi. Additions to an engineering report or other document to update or revise original recommendations.
- B. Changes in the general scope, extent, or character of the project, including, but not limited to:
- i. Changes in size or complexity.
  - ii. Owner's schedule, design, or character of construction.
  - iii. Method of financing.
  - iv. Revision of previously accepted studies, reports, design documents, or construction contract documents when such revisions are required by changes in laws, rules, regulations, ordinances, codes, or orders enacted subsequent to the preparation of

such studies, reports, documents, or designs; or are required by any other causes beyond Engineer's control.

- v. Setting horizontal and vertical controls and locating street, road, highway, and utility rights-of-way and critical property corners and to provide additional records on rights-of-way and property information.

C. Testing:

- i. Laboratory and field testing and any reports or studies on materials and equipment requested by Owner.
- ii. Observing factory tests and/or field retesting of equipment that fails to pass the initial test.

D. Hazardous Environmental Conditions:

- i. Remedial investigation/feasibility study or Phase I environmental site assessment to determine the quantity and location of contamination.
- ii. Conduct asbestos or lead based paint abatement or other hazardous material abatement on existing facilities.

E. Support services for additional work in connection with public information activity.

F. Additional Pre-Award Services:

- i. If the apparent successful bidder is not well qualified or if substantive changes to the design are proposed by the Bidder or the Contractor after award, substantial and unpredictable levels of effort by Engineer might be required to resolve issues. These services are to be provided as supplemental services according to Owner's request.
- ii. Apparent Successful Bidder's Requests for Review. Review data regarding materials and equipment submitted by the apparent successful bidder to determine acceptability when the review is required by the bidding documents subsequent to bid opening and prior to award of contract.
- iii. Evaluate Change Requests by Contractor. Review, evaluate, and submit comments to Owner concerning equipment performance data submitted by the Contractor. These services may include review of building design changes required to accommodate the proposed equipment; installation requirements and related engineering, training, and operating costs; the experience and performance record of the manufacturer; availability of service personnel; and operating and maintenance costs.

G. Services During Construction:

- i. The Scope of Services does not include construction administration and construction management services.

## 9.0 OWNER RESPONSIBILITIES

OWNER will furnish, as required by the work and not at the expense of the Consultant, the following items:

- A. All maps, drawings, reports, records, audits, annual reports, and other data that are available in the files of the Owner and which may be useful in the work involved under this contract.
  - i. Existing site survey drawings and electronic files previously performed within the site survey areas.
    - a. Electronic files exported in AutoCAD Civil 3D “.DWG” file format.
    - b. If available, electronic files shall include Civil 3D point objects, point groups, surfaces, and/or alignments in addition to the planimetric features.
- B. Access to GSPS when required in performance of the Consultant’s services.
- C. If Owner purchases, or causes a construction contractor to purchase, a builders’ risk or other property insurance policy for the Project, Owner shall require that ENGINEER be included as a named insured on such policy without liability for the payment of premiums.

## 10.0 COMPENSATION

### 10.1 PAYMENTS

Monthly payments shall be made to the Consultant by the Owner based on the Consultant's invoice. The invoice shall indicate amount due according to progress of the work and level of effort as reported by Engineer.

- A. Detailed Fee Breakdown. The total fee is estimated at \$259,485.00; the following breakdown of fee is provided:

		Hours	Labor	Subcontracts	Travel Expenses	Project Total
<b>CONTRACT TOTALS IN USD \$:</b>		<b>\$ 1,315</b>	<b>\$ 249,635</b>	<b>\$ 7,700</b>	<b>\$ 2,150</b>	<b>\$ 259,485</b>
Task	Description					
<b>Task 1</b>	<b>TASK 100: PROJECT ADMINISTRATION AND MEETINGS</b>					
1/.01	Project Management and Administration	105	\$ 17,380			\$ 17,380
1/.04	Project Initiation Meeting	7	\$ 2,003			\$ 2,003
1/.05	Design Review Workshops	11	\$ 2,959			\$ 2,959
1/.06	Periodic Site Visits - Design	19	\$ 4,739		\$ 1,975	\$ 6,714
1/.07	Progress Review Meetings	25	\$ 6,569		\$ 175	\$ 6,744
1/.08	Status Review Meetings	3	\$ 915			\$ 915
1/.09	Potential Scope Adjustment	5	\$ 1,525			\$ 1,525
	<b>Task 1 Subtotals</b>	<b>175</b>	<b>\$ 36,090</b>		<b>\$ 2,150</b>	<b>\$ 38,240</b>
<b>Task 2</b>	<b>TASK 200: SITE INVESTIGATION AND SUBCONSULTANTS</b>					
2/.01	Evaluate Existing Facilities	2	\$ 610			\$ 610
2/.02	Surveying Services (Topographic and Geotechnical)	9	\$ 1,521	\$ 7,700		\$ 9,221
	<b>Task 2 Subtotals</b>	<b>11</b>	<b>\$ 2,131</b>	<b>\$ 7,700</b>		<b>\$ 9,831</b>
<b>Task 3</b>	<b>TASK 300: PRELIMINARY DESIGN</b>					
3/.01	Design Development Report	277	\$ 53,058			\$ 53,058
	<b>Task 3 Subtotals</b>	<b>277</b>	<b>\$ 53,058</b>			<b>\$ 53,058</b>
<b>Task 4</b>	<b>TASK 400: DETAILED DESIGN</b>					
4/.01	Detailed Design 90%	701	\$ 130,179			\$ 130,179
4/.02	Regulatory Agency Review	1	\$ 305			\$ 305
4/.03	Detailed Design 100%	92	\$ 16,576			\$ 16,576
4/.04	Permitting	15	\$ 2,877			\$ 2,877
	<b>Task 4 Subtotals</b>	<b>809</b>	<b>\$ 149,937</b>			<b>\$ 149,937</b>
<b>Task 5</b>	<b>TASK 500: BID AND PRE-AWARD SERVICES</b>					
5/.01	Advertisement	1	\$ 305			\$ 305
5/.02	Pre-Bid Conference	2	\$ 610			\$ 610
5/.03	Interpretation of Bidding Documents	16	\$ 3,338			\$ 3,338
5/.04	Bid Opening	1	\$ 305			\$ 305
5/.05	Pre-Award Services	4	\$ 768			\$ 768
5/.06	As-Bid Construction Contract Documents	19	\$ 3,093			\$ 3,093
	<b>Task 5 Subtotals</b>	<b>43</b>	<b>\$ 8,419</b>			<b>\$ 8,419</b>