



Work Order No.

HM59.400-2021
WO03

**WORK ORDER FOR
ADDITIONAL SERVICES**

To:	Mr. Joe Cronin	Date:	June 7, 2021
Company:	Town of Seabrook Island		
Project Name:	Seabrook Island Road – Roadway and Drainage Improvements		
From:	Chris Ackerman	Client PO No:	

Work performed in connection with this work order is in addition to the scope of services contracted under:

ESP Proposal No: or Client Contract No:	CHE1-181123	ESP Job No:	HM59.400
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The authorized agent named above hereby directs ESP Associates, Inc. to provide the following services:

See "Attachment A Work Order for Additional Services"

The above services are in addition to the contracted amount and will be invoiced as follows:

- The above services will be invoiced at a lump sum of **(See Attachment A)**.
- The above services will be invoiced at our current hourly and/or unit rates.
- The above services will not exceed the budgeted amount of \$ without prior written agreement by both parties.
This estimated amount may need revision if the services or scope require additional commitment. Notification of such required additional commitment will be given prior to the completion of the budgeted amount.

Acceptance of all terms of this Work Order by and between:

Authorized Signature

Date

Printed Names of Client's Authorized Signer

Title

ESP Associates, Inc.

06/07/2021
Date



Seabrook Island Road – Drainage Evaluation

**ATTACHMENT - A
WORK ORDER FOR
ADDITIONAL SERVICES****I. Geotechnical Engineering Services – Subsurface Exploration and Pavement Evaluation**

We will perform a visual evaluation of the pavement surface using the procedures presented in ASTM D6433 “Standard Practice for Roads and Parking Lots Pavement Condition Index Surveys.” A pavement conditions index (PCI) and rating will not be calculated; however, we will use the information collected to evaluate the existing pavement condition, distressed areas, causes for the distress, and remedial measures.

We will then explore the existing roadway with pavement cores, shallow manual auger borings, and dynamic cone penetration (DCP) testing. The twelve (12) test locations will be spaced at roughly 500 feet along the alignment. The pavement will be cored, and the existing section (i.e., asphalt and base) will be measured. DCP testing will be performed on the subgrade in general accordance with ASTM D6951, and this data will be used to estimate in situ California Bearing Ratio (CBR) values. A manual auger boring will then be drilled to a depth of 4 feet below the pavement surface, and the soils encountered will be visually classified in the field using the Unified Soil Classification System (ASTM D2487). Upon completion, the bore holes will be backfilled with the cuttings, and the asphalt will be patched with cold patch. No soil sampling or laboratory testing is proposed.

Traffic control will be required to perform the exploration field work. We will work with Seabrook Island personnel to reduce our impacts to traffic operations as much as practical. We will call SC811 to mark underground utilities prior to our mobilization to the site. Any private utilities not marked by SC811 should be marked by the Owner prior to our mobilization. ESP is not responsible for damage to unmarked utilities.

We will prepare a pavement design report that will present project information, the exploration procedures, and our findings. The report will provide geotechnical recommendations for incorporating existing pavements into the new roadway, where applicable, fill placement and compaction, and new pavement section.

Our fee for the above services (I) is a lump sum fee of \$10,750.00. Will not exceed this fee without written authorization. Additional work will be performed using the rates on the attached Fee Schedule.

We can mobilize to the site within one week of authorization. We assume our field work can be performed Monday through Friday during normal working daylight hours. We anticipate the field work will take two days to complete. Our written report can be provided within two weeks of completion of the field work; however, we expect the report delivery will be coordinated with the civil design delivery.

The project information and assumptions presented herein should be reviewed and confirmed by the appropriate team members. Modifications to our scope and fee may be required if the actual conditions vary substantially from the project information and assumptions stated herein.

II. SUE-Subsurface Exploration Services

ESP personnel will conduct a subsurface utility investigation for the Seabrook Island Road project on Seabrook Island, South Carolina. We will deploy a combination of electromagnetic (EM) pipe and cable locators and ground penetrating radar (GPR) to designate existing utilities within the approximately 5,700-foot section of Seabrook Island Road. The approximate horizontal positions and electronic depth readings of all detectable utilities will be marked on the ground using paint or pin flags. Gravity systems will not be included since they have already been provided on project drawings. Once all subsurface utilities have been designated the horizontal positions will be surveyed using project control provided by a previous survey. The final deliverable will be an AutoCAD electronic file showing the utility linework along with approximate electronic depths. No formal layouts will be provided.



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This scope of work will include records research to identify the existence, approximate locations, and utility attributes. ESP personnel will request maps and records from all known utility owners with facilities within the project area and may meet with utility owners if records cannot be provided.

It is estimated that this investigation will take up to 3 weeks in the field and up to 40 hours of AutoCAD work to complete the utility drawing.

Requirements/Notes

- It should be noted that when utility depths are provided by noninvasive methods such as GPR and EM systems, these depths are approximate and therefore should not be relied upon for precise design, conflict determination, or damage prevention purposes. These depth estimates should be confirmed in all cases where precise measurements are needed. The depths provided by instruments are calculated depths and not necessarily a measurement to the top of the utility. Factors affecting the precision of instrument-derived depth measurements include utility type and material, utility depth, utility congestion/signal bleed, soil conditions, type of cover, instrument type, and cultural interferences.
- Marking paint will be used primarily to mark utilities unless client notifies us prior to commencing with field work. Therefore, client understands and accepts that paint will be applied extensively throughout the project limits.
- It is expected that client will notify and arrange access to any private or sensitive areas within the area of investigation. Additionally, client will make arrangements to clear surface obstructions as necessary before and during the field work.
- We assume all work will be performed during normal workday hours. If night or weekend work is required, additional fees may be incurred.
- If underground utilities are damaged within area of investigation, whether marked by ESP or not, it is Client's obligation to notify ESP within 48 hours of any damage to allow ESP to investigate the damage. Failure to notify ESP within 48 hours absolves ESP from any potential liability for claims.
- Although geophysical methods provide a high level of assurance in determining the location of subsurface objects, the possibility exists that not all features will be detected due to depth, size, soil conditions, and other reasons beyond ESP's control. For example, utilities present at depths below an instrument's detection limit cannot be located. Therefore, it is understood that no non-invasive instrument is guaranteed to detect 100% of subsurface utilities or other features. In instances where precise horizontal and vertical is critical, minimally invasive methods such as vacuum excavation should be utilized to visually inspect and survey the feature. Therefore, due caution should be used when performing any subsurface excavation and ESP is not liable for any damages that occur unless it is demonstrated that the damages occurred as a result of our negligence.

Our fee for the above services (II) shall be performed on a time and material basis based on the attached fee schedule. A recommended budget of \$36,600 has been established for the above services; however, this estimate may need revision if the services or scope require additional commitment. Notification of such required additional comment will be given prior to the completion of the budgeted amount.

III. Civil Engineering – Additional Services – Design Development & Construction Documents (80% Design)

- A. Prepare an existing conditions and demolition plan based on ALTA/ACSM and topographic surveys as provided by Client.



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- B. Design and prepare roadway site plan, to include outbound path, for existing Seabrook Island Road (approximately 5,700 LF).
- C. Prepare one (1) preliminary grading plan and one (1) preliminary earthwork volume calculation for the overall roadway and drainage improvements.
- D. Attend one (1) meeting to review Task C with Client.
- E. Attend up to three (3) meetings with AHJ to discuss existing utilities, proposed utilities, preliminary grading design, and site layout. ESP assumes meeting with SJWC to present the proposed plan for courtesy review only.
- F. Prepare site plan layout and preliminary storm drainage layout for review with client.
- G. Design and prepare road plan and profile sheets for proposed roadway improvements.
- H. Design and prepare a grading plan for the development based off of preliminary drainage report findings previously provided by ESP. Grading design shall include proposed contours, swale locations - including high and low points for swales, and detailed grading for out-bound path.
- I. Design storm drainage system based on the grading plan.
- J. Design sediment and erosion control plan for the proposed improvements.
- K. Prepare detailed plan for site infrastructure, temporary lane design, and erosion control measures.
- L. Attend design team conference calls / meetings as requested by Client – includes up to five (5) meetings.
- M. Fee for Civil Construction Documents shall be for design as one single phase.
- N. Variance requests are not included within this scope and would be negotiated prior to performing variance requests to AHJ.

Our fee for the above services (III) is a lump sum fee of \$48,000.00. Any revisions or changes required that are not the responsibility of the engineer will be completed on a time and material basis based on the attached fee schedule or a negotiated fee basis.

IV. Civil Engineering – Additional Services – Final Construction Documents

- A. Prepare Construction Storm Water Pollution Prevention Plan (C-SWPPP) in accordance with South Carolina Department of health and Environmental Control (SCDHEC) and Charleston County standards. The C-SWPPP shall contain the storm drainage, storm water management, and erosion control calculations.
- B. Prepare Charleston County and SCDHEC construction permit applications. ESP anticipates submitting to the Town of Seabrook for site review and land disturbance and to SCDHEC for land disturbance. ESP assumes that all permit application and review fees shall be paid by the Client.
- C. Construction drawings shall be prepared on 24" x 36" sheet size.
- D. Submit construction documents, C-SWPPP, sanitary sewer and water distribution calculations, and permit applications to Berkeley, Dorchester, Charleston County Council of Governments (BCDCOG) and SCDHEC. This task shall include addressing two (2) sets of comments from AHJ's.
- E. Submit construction drawings to Client at 90% for review concurrent to review by AHJ's. Address Client comments concurrently with AHJ comments.
- F. Schedule and attend review meetings with AHJ's involved in the review of the construction documents to facilitate review, if required – includes up to three (3) meetings.

Our fee for the above services (IV) is provided as a lump sum of \$12,000.00. Any revisions or changes required that are not the responsibility of the engineer will be completed on a time and material basis based on the contracted hourly rate sheet or a negotiated fee basis.

V. Civil Engineering – Additional Services – Technical Specifications

- A. Prepare technical specifications for the site civil prepared as part of Task IV above and submitted to Client for review.



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- B. Technical specifications shall be prepared.
- C. ESP shall provide (1) round of revisions to technical specifications per Client comments.

Our fee for the above services (V) is provided as a lump sum of \$5,000.00. Any revisions or changes required that are not the responsibility of the engineer will be completed on a time and material basis based on the contracted hourly rate sheet or a negotiated fee basis.

VI. Civil Engineering – Additional Services – Bid Phase

- A. Attend one (1) Pre-bid meeting as requested by the Client.
- B. Respond to bidders during the bid process.

Our fee for the above services (VI) shall be performed on a time and material basis based on the attached fee schedule. A recommended budget of \$3,500 has been established for the above services; however, this estimate may need revision if the services or scope require additional commitment. Notification of such required additional comment will be given prior to the completion of the budgeted amount.

VII. Civil Engineering – Additional Services – Construction Phase

- A. Attend one (1) Pre-construction meeting with the Client and Contractor.
- B. Review Contractor Submittals for storm drainage, retaining walls, BMPs, and other items as requested by the Client/Contractor.
- C. Attend weekly or bi-weekly meetings or conference calls as requested by the Client. ESP assumes attending 18 meetings.
- D. Attend site visits as requested by the Client/Contractor to review field conditions or observe construction items.
- E. Respond to contractor requests as directed by the Client.

Our fee for the above services (VII) shall be performed on a time and material basis based on the attached fee schedule. A recommended budget of \$18,000 has been established for the above services; however, this estimate may need revision if the services or scope require additional commitment. Notification of such required additional comment will be given prior to the completion of the budgeted amount.

VIII. Civil Engineering – Additional Services – Storm Drainage, Roadway Close-out and Certifications

- A. Observe construction periodically as requested by Client for the purposes of certification of SCDHEC for storm drainage and roadway.
- B. Review as-builts and prepare certifications for storm drainage and roadway.
- C. Submit storm drainage and roadway as-builts and certifications to the SCDHEC for purpose of roadway acceptance. (As-builts to be provided to engineer by owner's surveyor).

Our fee for the above services (VIII) shall be performed on a time and material basis based on the attached fee schedule. A recommended budget of \$10,000 has been established for the above services; however, this estimate may need revision if the services or scope require additional commitment. Notification of such required additional comment will be given prior to the completion of the budgeted amount.

IX. Civil Engineering – Additional Services – Reimbursable Expenses

ESP anticipates invoicing for the reproductions made for submittals (we understand that in-house design / working drawings are included in the base fee). In addition, we anticipate invoicing overnight shipping and pickup/delivery expenses.



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Our fee for the above services (IX) shall be performed on a time and material basis based on the attached fee schedule. A recommended budget of \$3,500 has been established for the above services; however, this estimate may need revision if the services or scope require additional commitment. Notification of such required additional comment will be given prior to the completion of the budgeted amount.