CPR COMMITTEE and/or COUNCIL AGENDA

TO: John J. Tecklenburg, Mayor

FROM: Terri Hubbard Sciarro / Andrew Jones **DEPT.** Parks – Capital Projects

SUBJECT: ASHLEY RIVER PEDESTRIAN BRIDGE PROFESSIONAL SERVICES CONTRACT

REQUEST: Approval of a Professional Services Contract with HDR Engineering Inc. of Charleston in the amount of $2,009,112.81 for design build contract support, contingent upon FHWA approval of pre-award costs. Work performed under this contract is necessary to bid the Design Build Contract by next fall in order to obligate the FHWA Build Grant funding. The City has been working under the direction of FHWA with assistance from SCDOT to negotiate the contract with HDR that is in compliance with federal guidelines.

Notice to proceed will not be given to contractor until City has received approval award letter from FHWA and subsequent funding from Charleston County.

COMMITTEE OF COUNCIL: Ways & Means **DATE:** September 22, 2020

COORDINATION: This request has been coordinated with: *(attach all recommendations/reviews)*

	Yes	N/A	Signature of Individual Contacted	Attachment
CPR Committee Chair	☐	☐	Amy Wharton	☐
Corporate Counsel	☑	☐		☐
Capital Projects Director	☐	☐	DocuSigned by:	☐
MBE Manager	☒	☐	Ruth Jordan C6144858B5D447C	☐

FUNDING: Was funding previously approved? Yes ☒ No ☐ N/A ☐

If yes, provide the following: Dept/Div **Parks-Capital Projects** Acct # **051616-58238**

Balance in Account **$2,009,112.81** Amount needed for this item **$2,009,112.81**

Project Number **CP2007**

NEED: Identify any critical time constraint(s).

CFO's Signature: Amy Wharton

FISCAL IMPACT: **Approval of this professional services contract will obligate $2,009,112.81 of the $22,749,750.00 project budget. Funding sources for this project are: BUILD Grant, Charleston County, General Fund Reserves and MUSC.**

Mayor's Signature:

John J. Tecklenburg, Mayor

ORIGINATING OFFICE PLEASE NOTE: A FULLY STAFFED/APPROVED (except Mayor's Signature) PACKAGE IS DUE IN THE CLERK OF COUNCIL'S OFFICE NO LATER THAN 10:00 A.M THE DAY OF THE CLERK'S AGENDA MEETING.

HDR Contract

Attachments

A – Scope of Services & Schedule
B – Services of the City
C – Engineering Fee

AGREEMENT AND CONTRACT BETWEEN
CITY OF CHARLESTON
AND
HDR ENGINEERING INC. OF THE CAROLINAS

SECTION I. GENERAL RECITALS

THIS AGREEMENT and Contract, made and entered into this ___ day of _____, 2020, by and between the City of Charleston, South Carolina, hereinafter referred to as "CITY," and HDR ENGINEERING INC. OF THE CAROLINAS, a corporation organized and existing under and by virtue of the laws of the State of North Carolina and qualified to do business in the State of South Carolina, with its principal offices in Nebraska located at 8404 Indian Hills Drive, Omaha, NE 68114-4098, hereinafter referred to as "CONSULTANT," collectively the "Parties."

WITNESSETH:

WHEREAS, the CITY desires to employ CONSULTANT to furnish personnel and render professional engineering services for the use and benefit of the CITY in the development of the project as hereinafter more particularly described; and

WHEREAS, the CONSULTANT has represented to the CITY that the CONSULTANT is experienced and qualified to provide the services contemplated by this Agreement and the CITY has relied upon such representation; and

WHEREAS, S.C. Code Ann. Section 5-7-30 (as amended) authorizes the CITY to enter into this Agreement for such services;

NOW, THEREFORE, in consideration of these premises and of the mutual covenants herein set forth, it is agreed by and between the parties hereto as follows:

SECTION II. SCOPE OF SERVICES REQUIRED OF CONSULTANT

A. PROJECT DESCRIPTION. Design-Build Support for the Ashley River Bike and Pedestrian Bridge.

B. GENERAL STATEMENT OF CONSULTANT'S ASSIGNMENT. For the heretofore described project, the CONSULTANT will provide engineering services as described in ATTACHMENT "A," SCOPE OF SERVICES AND SCHEDULE, attached hereto and specifically made a part of this Agreement. Work and liaison will be performed by the CONSULTANT through its South Carolina office located at 4400 Leeds Avenue, Suite 450, North Charleston, SC 29405.

C. CERTIFICATION FOR PROJECT PLANS AND SPECIFICATIONS. The CITY and the CONSULTANT may agree to have project plans and specifications provided for by

"certification." The "Engineer Certification for Project Plans and Specifications" is attached hereto in Exhibit "I" and specifically made a part hereof. The "certification" will be executed if agreed by the parties as applicable.

SECTION III. SERVICES OF CITY

The CITY agrees to provide to the CONSULTANT, and at no cost to the CONSULTANT, the services and data set forth in ATTACHMENT "B," SERVICES OF THE CITY, attached hereto and specifically made a part of this Agreement. Liaison for the CITY will be the Project Manager assigned by the CITY's Capital Projects Division of the Department of Parks.

SECTION IV. SCHEDULE (TIME OF PERFORMANCE)

The effective date of this Agreement will be the date of execution as shown in Section I. The CONSULTANT shall begin work upon receipt of the CITY's written notice to proceed.

The CONSULTANT will prosecute all phases of the work in an expedient manner, exclusive of required review time by the CITY, and, if applicable, the Federal Highway Administration ("FHWA") as set forth in ATTACHMENT "A," SCOPE OF SERVICES AND SCHEDULE.

SECTION V. FEE AND COSTS

For the services covered under this Agreement, the CONSULTANT shall be compensated by the CITY as follows:

A. LUMP SUM. In the event the extent of the CONSULTANT's studies and work efforts during all phases of work set forth can be determined with exactness at the time of negotiation, it is mutually agreed by and between the CONSULTANT and the CITY that compensation to the CONSULTANT will be on a Lump Sum Basis. Lump sum may also include approved unit cost or per parcel if considered appropriate and approved by the CITY.

B. COST PLUS FIXED FEE. In the event the extent of the CONSULTANT's studies and work efforts during all phases of work set forth cannot be determined with exactness at the time of negotiation, it is mutually agreed by and between the CONSULTANT and the CITY that compensation to the CONSULTANT will be the basis of the CONSULTANT's actual cost of performing all phases of the work, plus a fixed amount to cover net fee only.

C. PROGRESS PAYMENT. For the CONSULTANT's services in which payment is on a cost plus fixed fee basis as described above, the actual costs of the CONSULTANT eligible for reimbursement are only those directly attributable to the accomplishment of the specific work of the CONSULTANT. These may include:

1. Actual basic salaries of productive personnel for work time directly connected with the project.

2. Payroll Additives eligible for reimbursement.

3. The indirect cost rate approved in compliance with Paragraph D below.

4. The general operating overhead costs of the CONSULTANT as determined by audit of CONSULTANT's operations.

5. Out-of-pocket direct project expenses at actual cost to the CONSULTANT. Any non-salary cost identified specifically with the project is a direct charge to the project and is eligible for compensation. Such out-of-pocket costs shall include, but not necessarily be limited to, travel and subsistence for the CONSULTANT's personnel on the project, project materials and supplies, telephone and communications, printing and reproductions, and computer services. Automobile mileage will be reimbursed at the actual cost per mile incurred provided such cost per mile does not exceed the rate established by the Internal Revenue Service for the period. Only mileage associated with the business use of vehicles will be reimbursed. Any mileage related to personal use by employees (including transportation to and from work) is unallowable. However, if contractually agreed to in advance, mileage associated with travel to a temporary work location may be reimbursed. Generally, a work location is considered to be temporary if the assignment to the new location is expected to last 1 year or less. Billings for any actual out-of-pocket expenses directly identifiable with the project shall be supported by actual account records, expense accounts, receipts and other miscellaneous supporting materials and shall be made available by the CONSULTANT for review and audit by the CITY or authorized CITY representative.

6. For the cost of outside services and associate services as may be necessary and as formally approved in writing by the CITY, the CONSULTANT shall be reimbursed by the CITY only for the actual cost to the CONSULTANT for such services.

D. INDIRECT RATE. The CONSULTANT and its subconsultants shall comply with the FHWA Order 4470.1A, dated October 27, 2010. This FHWA Order references a requirement for an approved Federal Acquisition Regulation (FAR) compliant indirect cost rate and certification.

E. NON-ALLOWABLE COSTS. The CITY shall not reimburse the CONSULTANT for any expenses relating to business development activities, attendance at any special event, function, or ceremony where attendance is for social purposes. This does not include special events, functions or a ceremony in which a written CITY request and approval has been given to the CONSULTANT to attend for the purpose of speaking and/or presenting purposes, or assisting CITY staff with preparation and delivery of the function. The CONSULTANT is required to certify compliance with this paragraph on all invoices.

F. TOTAL COMPENSATION. The amount of compensation set forth in ATTACHMENT "C," ENGINEERING FEE, attached hereto and specifically made a part of this Agreement, shall be the maximum payable by the CITY without prior written authorization from the CITY to increase the amount. Any such increase will also be subject to the approval of the FHWA if federal funds are involved. This Agreement may be subject to a pre-award audit as considered appropriate by the CITY auditors.

Compensation to CONSULTANT under the terms of this AGREEMENT shall not exceed 1,828,401.63 for salaries, payroll additives, overhead, direct cost and outside services plus a fixed fee of 180,712 (in the event that significant changes in the scope of work occur, the fixed fee may be adjusted to an amount that is fair and reasonable to both CONSULTANT and CITY) resulting in a maximum limit of 2,009,112.81.

G. COST RECORDS. The CONSULTANT, and its authorized subcontractors, shall maintain cost records in such manner as to comply with the regulations set forth in Procurement, Management, and Administration of Engineering and Design Related Services (23 C.F.R. § 172), 48 C.F.R. § 31 of the Federal Acquisition Regulations, Subpart F of Uniform Administrative Requirements (2 C.F.R. §§ 200.500, *et seq.*), and other directives as appropriate.

H. PURCHASE AND RENTAL/LEASE. The CITY considers that the CONSULTANT should have the necessary equipment and other items to perform consultant work described in the scope of services. In those cases where it becomes necessary to purchase, lease, or rent equipment or other items with project funds, prior written CITY approval is required. All equipment and other items approved by the CITY for purchase with project funds shall become the property of the CITY at the completion of the project.

I. RELOCATION COSTS. The CONSULTANT has represented to the CITY that the CONSULTANT has the necessary personnel to perform the CONSULTANT's scope of services, and the CITY has relied upon such representation. In those CITY approved cases where it becomes necessary to relocate an employee, the CONSULTANT agrees that reimbursable relocation costs are limited to the costs incident to the permanent change of duty assignment (for an indefinite period or for a stated period of no less than 12 months) of an existing employee. To be considered for reimbursement eligibility, all relocation costs must be approved in writing by the CITY prior to any proposed relocation.

J. OVERTIME, EXTRA-PAY SHIFTS, MULTI-SHIFTS. Where the cost to the CITY may be affected, this Contract should be performed so far as practicable without the use of overtime, extra-pay shifts, or multi-shifts, and, in particular, without the use of overtime as a regular employment practice. Any required overtime, extra-pay shifts and multi-shifts will be limited to the minimum needed for accomplishment of the specific work and will require prior written approval by the CITY.

SECTION VI. MODE OF PAYMENT

A. The CONSULTANT shall submit monthly invoices to the CITY's Project Manager who in turn will review and recommend payment to and by the CITY.

B. Monthly Invoices. For services performed in this Agreement, the CONSULTANT shall be paid monthly based on an approved invoice. Monthly or partial payments, at the discretion of the CITY, may have appropriate retainage withheld until completion and acceptance of the work.

C. Acceptable Invoices. The CITY considers an acceptable invoice to include:

1. A breakdown of man-hours by classification and rate;
2. A line item for overhead;
3. A line item for profit;
4. A breakdown for other direct costs;
5. A breakdown for subconsultant services;
6. Signature of certification by an authorized representative of the firm;
7. The CITY's Project Manager may request additional certifications relating to work performed.

NOTE: For approved unit cost agreements, numbers 1, 2, and 3 above may be combined and identified by services, volume and rate. Numbers 4 and 5 above shall be by breakdown costs.

D. Certification of prompt payment to subconsultants. The CONSULTANT shall certify on each invoice for payment that the charges thereon are true and correct. The submittal of such invoice shall constitute the CONSULTANT's certification that all subconsultants have incurred the charges shown on the invoice, will be paid within seven (7) days upon receipt of payment from the CITY, and have been paid for all charges shown on previous invoices.

E. Prompt release of retainage. The CONSULTANT may withhold as retainage up to five (5%) percent of a subconsultant's payment until satisfactory completion of all work items of a subcontract. "Satisfactory completion of all work items of the subcontract" shall mean when the CITY pays the CONSULTANT for the last work item of the subcontract. The CONSULTANT must release to the subconsultant any retainage withheld within seven (7) calendar days of the date the CONSULTANT receives payment from the CITY for the last work item of the subcontract.

F. Sanctions for failure to comply. Failure to comply with any of the above prompt payment provisions shall result in one or more of the following sanctions: (1) no further payments being made to the CONSULTANT until compliance is achieved; (2) the CONSULTANT being declared in default of the Contract; (3) the CITY terminating the Contract in accordance with Section VII, Paragraph (K) of this Agreement.

SECTION VII. GENERAL PROVISIONS

The CITY and the CONSULTANT mutually agree as follows:

A. OWNERSHIP OF DOCUMENTS. Basic notes, sketches, charts, and other data prepared, furnished or obtained under this Agreement will become the property of the CITY without restriction or limitation on their use. No material produced in whole or in part under this Agreement will be subject to copyright in the United States or in any other country. The CITY shall have unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, any reports, data, or other materials prepared under this Agreement. The CITY shall retain ownership of all plans, drawings, specifications, and related documents.

B. INFORMATION TECHNOLOGY. All program management systems, software, or information technology products developed or utilized by the CONSULTANT for the project shall be able to interface with information technology systems utilized by the CITY. All systems, software, or information technology developed for this project shall become the sole property of the CITY upon Contract completion, including any source code. No program management systems, software, or information technology products produced in whole or in part under this Agreement will be subject to copyright by the CONSULTANT. The CITY shall have unrestricted authority to publish, disclose, distribute, and otherwise use, in whole or in part, all program management systems, software, or information technology products prepared by the CONSULTANT, or its subconsultants, under this Agreement.

C. FINDINGS CONFIDENTIAL. Any reports, information, data, etc. furnished to or prepared or assembled by the CONSULTANT under this Agreement which the CITY requests to be kept as confidential will not be made available to any individual or organization by the CONSULTANT without prior written approval of the CITY.

D. REQUIREMENTS FOR CHECKING AND REVIEWING OF PLANS.

It is the CONSULTANT's responsibility to produce plans that conform with all specifications, guidelines, and requirements stated in this Agreement unless a specific deviation has been requested in writing and approved by the CITY and, if applicable, the FHWA. All plans, whether preliminary or final, submitted to the CITY, shall have been checked in their entirety for completeness, correctness, accuracy, and consistency with other details in all respects, and shall have been thoroughly reviewed by the CONSULTANT to be in compliance with these requirements prior to submission to the CITY.

The spaces provided in the title box labeled "By," "CHK'D," and "REVIEWED BY" shall be signed with the initials of the persons who performed those specific functions on that portion of the project at the time of submittal to the CITY. In the event that a print of a partially completed sheet is to be submitted, the initials may be added directly to the print rather than being entered on the original drawing.

Once plans have been submitted to the CITY, no changes shall be made unless the CITY has been notified of the specific change. However, additions to complete the plans may be made provided the requirements for checking and reviewing are applied. All prints submitted to the CITY shall have the date of submittal stamped on the title sheet.

The CITY will perform a general review of the plans only. The CITY's review does not relieve the CONSULTANT of any responsibility for the completeness, correctness, consistency, and accuracy of all information, dimensions, quantities, details, designs, and compliance with all specifications, guidelines, and requirements of this Agreement. Should any discrepancies, errors, or omissions be found at any time after submittal of the plans, corrections to plans will be made at the CONSULTANT's expense. The CONSULTANT shall not include the cost of corrections of faulty or deficient work on his invoice to the CITY.

Failure to meet any of the above requirements may result in the withholding of payment until plans are deemed acceptable in the opinion of the CITY, or may be deemed just cause for consideration of termination of this Agreement.

E. PROGRESS. The CONSULTANT shall at all times work closely with the designated representatives of the CITY and shall keep them fully advised as to the status of the work. The CONSULTANT or his authorized representative will be present at all conferences, field inspections and other meetings as may be requested by the CITY. Conferences or consultations may be called at any time by either party to this Agreement. The plans and work of the CONSULTANT will be available to the CITY and, if applicable, to appropriate representatives of the FHWA for review at all times.

F. QUALITY CONTROL. All work by CONSULTANT is to be done in a manner satisfactory to the CITY and in accordance with the established customs, practices, and procedures of the CITY, State of South Carolina, and FHWA, and in conformity with the standards adopted by the American Associations of State Highway and Transportation Officials and approved by the Secretary of Transportation as provided in 23 U.S.C. § 109, as amended. For work involving the development of plans, the CONSULTANT shall implement all necessary quality control measures to produce plans that conform to FHWA guidelines and standards. Prior to submittal to the CITY, all plans shall be thoroughly reviewed by the CONSULTANT for completeness, correctness, accuracy, and consistency with the aforementioned requirements. Plan sheets shall be initialed as applicable by both the preparer and the reviewer to indicate appropriate quality reviews have been completed. The CONSULTANT shall maintain copies of any quality control documents, including check prints, throughout the duration of the project, with them becoming part of the official file, and shall submit copies of these to the CITY upon request.

G. INSPECTION OF WORK. The CITY shall have access to and the right to inspect all project work and materials during regular business hours of the CONSULTANT. The CONSULTANT and its subcontractors shall keep and preserve all books, documents, papers, accounting records, and other evidence pertaining to costs incurred and make such materials available at its respective offices at reasonable times during the Contract period and for three years

from date of final payment under the Contract for inspection by the CITY, any authorized representative of the CITY, and if applicable, the FHWA. Copies of these materials shall be furnished by CONSULTANT if requested by CITY.

H. CHANGES IN CONTRACT. The CITY may desire the CONSULTANT to render services for changes in connection with this project in addition to that provided for by the express provisions of this Agreement. Such additional services for changes will require a contract modification, setting forth the nature and scope of such additional services and the compensation therefor, as determined by mutual agreement between the CITY and the CONSULTANT. Work under such contract modification shall not proceed until formally approved by the CITY and, if applicable, the FHWA.

I. DELAYS AND EXTENSIONS. The CONSULTANT agrees to prosecute the work continuously and diligently; and no charges or claims for damages shall be made by CONSULTANT for any delays or hindrance, from any cause whatsoever during the progress of any portion of the services specified in this Agreement. Such delays or hindrances, if any, may be compensated for by an extension of time for such reasonable period as the CITY may decide. Time extensions may be granted only for excusable delays such as delays beyond the control and without the fault or negligence of the CONSULTANT.

J. FAILURE TO MAINTAIN SATISFACTORY PROGRESS

The CONSULTANT will proceed with the work in a timely fashion, providing sufficient manpower and resources to meet the commitment to schedules, milestones, and completion dates set forth in the Contract. The CITY may monitor the progress of the work to determine if the work is progressing sufficiently to meet the commitments agreed to in the Contract.

The CITY's Project Manager may make a preliminary finding of delinquency if at any time the CONSULTANT has not met the schedules, milestones, or completion dates established in the Contract, and it appears unlikely that the work will be completed by the specified date. Upon review of the preliminary finding of delinquency, the CITY's Project Manager may issue a Preliminary Notice of Delinquency. The CONSULTANT will have 15 calendar days to present information to the CITY as to why the CONSULTANT should not be found delinquent. This information should contain a specific plan of action to meet the Contract schedules, milestones, and completion dates and/or show circumstances beyond the CONSULTANT's control that have directly affected the CONSULTANT's ability to meet the commitments in the Contract. Upon review of the information submitted, the CITY's Project Manager will make a determination regarding the CONSULTANT's delinquent status. If a determination of delinquent status is made, the CITY's Project Manager will issue a Final Notice of Delinquency. A CONSULTANT receiving a Final Notice of Delinquency may appeal within 15 calendar days to the CITY's Director of the Department of Parks for a review of the delinquent status.

A CONSULTANT receiving a Final Notice of Delinquency shall be disqualified from receiving additional work, whether in the form of a new contract or a modification of an existing

contract. The CONSULTANT shall continue in a delinquent status until the project is in compliance with the schedule, or until the work required by the Contract is completed. This disqualification will become effective at the end of the 15-day appeal period if the CONSULTANT fails to appeal or on the date of decision if the appeal is denied. A CONSULTANT disqualified under this provision shall be barred from receiving work as an individual, firm, partnership, or corporation operating under the same name or a different name as the entity disqualified.

K. TERMINATION OF CONTRACT.

(a) This Contract may be terminated by the CITY at any time for the convenience of the CITY by written notice to the CONSULTANT specifying the termination date of the Contract. In the event of such termination of the Contract by the CITY, the CONSULTANT will be compensated on a *quantum meruit* basis for its work satisfactorily performed through the termination date.

(b) The CONSULTANT also has the right to terminate this Contract if the CITY unreasonably fails to timely provide the service required of the CITY under the scope of services, or unreasonably fails to make timely payment for consultant services rendered. In the event of such termination which is not the fault of the CONSULTANT, the CITY shall pay to the CONSULTANT the compensation properly due including reasonable overhead and profit on work performed for services properly performed (prior to the effective date of the termination) and for reasonable reimbursable expenses properly incurred as a result of the termination.

(c) In the event the CONSULTANT through any cause fails to perform any of the terms, covenants, or provisions of this Contract on its part to be performed, or if it for any reason fails to make progress in work hereunder in a reasonable manner, or if the conduct of the CONSULTANT impairs or prejudices the interest of the CITY, or if the CONSULTANT violates any of the terms, covenants, or provisions of this Contract, the CITY shall have the right to terminate this Contract by giving seven (7) calendar days' notice in writing of the termination and date of such termination to the CONSULTANT. The CITY shall have the sole discretion to permit the CONSULTANT to remedy the cause of the contemplated termination without waiving the CITY's right to terminate the Contract. All drawings, specifications, and other documents relating to the design or supervision of consultant work shall be surrendered forthwith by the CONSULTANT to the CITY. The CITY may take over work to be done under this Agreement and prosecute the work to completion by contract or otherwise, and CONSULTANT shall be liable to the CITY for all reasonable cost in excess of what the CITY would have paid the CONSULTANT had there been no termination.

L. DISPUTES. In any dispute concerning a question or fact in connection with the work of this Agreement, or compensation therefor, the decision of the CITY's Director of the Department of Parks in the matter shall be final and conclusive for both parties, subject to appeal to the South Carolina Circuit Court in Charleston County within 90 days of project completion.

M. RESPONSIBILITY FOR CLAIMS AND LIABILITY. The CONSULTANT shall assume certain risks in connection with the performance of this Agreement and shall be liable for and shall indemnify and hold harmless the CITY and other agencies of government from claims and liability due to negligent acts of the CONSULTANT, its subcontractors, agents, or employees in connection with the prosecution and completion of the work covered by this Agreement.

The CONSULTANT shall, until this Agreement has been fully performed or until it has been terminated by the CITY, take out and maintain as a normal business expense, the following insurance policies:

(a) The CONSULTANT shall purchase and maintain insurance to protect against claims that may arise out of the CONSULTANT's operations under the services of this Contract. The limits shall be for the limits set forth in this Section, shall be written on an occurrence basis (except that Professional Liability shall be written on a claims made basis) and shall be in force for the duration of the Contract.

(b) The CONSULTANT's Liability Insurance shall include all major divisions of coverage and is to be based on a Commercial basis including the following:
Premises – Operations.
Independent CONSULTANT's Protective.
Products and Completed Operations.
Personal and Advertising Injury.
Contractual, including specified provisions for CONSULTANT's obligations.
Broad Form Property Damage, including Completed Operations.
Owned, Non-Owned and Hired Vehicles.

(c) Errors and Omissions. The Insurance required by this Section shall be written for the following limits or greater if required by law or other provisions in the Contract:

1. Commercial General Liability:

a. General Aggregate (per project)	$ 2,000,000
b. Products/Completed Operations	$ 1,000,000
c. Personal and Advertising Injury	$ 1,000,000
d. Each Occurrence	$ 1,000,000
e. Fire Damage	$ 50,000
f. Medical Expense (any one person)	$ 5,000

2. Business Auto Liability (including all owned, non-owned, and hired vehicles):

a. Combined Single Limit	$ 1,000,000
-OR-	
b. Bodily Injury & Property Damage (each)	$ 1,000,000

3. Workers Compensation

a. State	Statutory
b. Employer's Liability	$ 100,000 Per Accident
	$ 500,000 Disease, Policy Limit
	$100,000 Disease, Each Employee

4. Professional Liability Insurance for the duration of this Contract with a limit of

$1,000,000 per claim and annual aggregate. This policy shall remain in effect for a minimum of 12 months after the date of issuance of the final Certificate of Payment by the CONSULTANT.

(d) The aggregate Limits of the CONSULTANT's Insurance shall apply, in total for this Contract. This shall be indicated on the Certificate of Insurance as "Per Project", or in an attached policy amendment.

(e) The CITY shall be listed as the certificate holder of the CONSULTANT's Liability Insurance.

(f) There shall be no endorsements or modifications of the CGL limiting the scope of coverage for liability arising from explosion, collapse, underground property damage, or work performed by CONSULTANT.

(g) Certificates of Insurance shall be in the form of the latest edition of the ACORD 25 and shall be filed with the CITY prior to commencement of the Work. In addition to Certificates of Insurance, the CONSULTANT shall supply a written endorsement to the CONSULTANT's general liability insurance policy that names the CITY as an additional insured. The endorsement shall provide that the CONSULTANT's liability insurance policy shall be primary, and that any liability insurance of the CITY shall be secondary and noncontributory. These Certificates shall contain a provision that coverages afforded under the policies will not be canceled unless at least thirty (30) days prior written notice has been given to the CITY.

(h) In no event shall any failure of the CITY to receive copies with sensitive information redacted or certificates of policies required under this Section or to demand receipt of such copies with sensitive information redacted or certificates prior to the CONSULTANT's commencing the Work be construed as a waiver by the CITY of the CONSULTANT's obligations to obtain insurance pursuant to this Section. The obligation to procure and maintain any insurance required by this Section is a separate responsibility of the CONSULTANT and independent of the duty to furnish a certified copy or certificate of such insurance policies. Cancellation of insurance shall be grounds for the immediate termination of the Contract.

N. GENERAL COMPLIANCE WITH LAWS. The CONSULTANT and its subcontractors shall at all times observe and comply with all Federal, State, and local laws, ordinances, and regulations affecting the conduct of the work. All applicable regulations found at 2 C.F.R § 200 and 23 C.F.R § 172 are hereby incorporated into this Agreement by reference.

O. SUBLETTING, ASSIGNMENT OR TRANSFER. The CONSULTANT shall not assign, sublet, or transfer any of the work, except as specifically provided for under the terms of this Contract, without prior written consent of the CITY. Such consent does not release or relieve the CONSULTANT, as principal, from any of its obligations and liabilities under this Agreement.

Subconsultant agreements are attached in ATTACHMENT "C" ENGINEERING FEE. All Contract provisions shall be furnished to all subconsultants and shall apply to all subconsultant agreements.

P. ETHICS ACT. By execution of this Agreement CONSULTANT certifies the CONSULTANT is in compliance with South Carolina's Ethics, Government Accountability, and Campaign Reform Act of 1991, as amended. The following statutes require special attention:

1. Offering, giving, soliciting, or receiving anything of value to influence action of public employee – Section 8-13-705;
2. Recovery of kickbacks – Section 8-13-790;
3. Offering, soliciting, or receiving money for advice or assistance of public official – Section 8-13-720;
4. Use or disclosure of confidential information – Section 8-13-725;
5. Persons hired to assist in the preparation of specifications or evaluation of bids – Section 8-13-1150;
6. Solicitation of state employees – Sections 8-13-755, 8-13-760 and 8-13-725.

Q. DRUG FREE WORK PLACE CERTIFICATION. By execution of this Agreement CONSULTANT certifies CONSULTANT will comply with all applicable provisions of The Drug-Free Workplace Act, Title 44, Chapter 107 of the South Carolina Code of Laws, as amended.

R. COVENANT AGAINST CONTINGENT FEES. The CONSULTANT warrants that it has not employed or retained any company or persons, other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that he has not paid or agreed to pay any company or person, other than a bona fide employee working solely for the CONSULTANT, any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the CITY shall have the right to annul this Contract without liability or, at its discretion, to deduct from the Contract price or consideration, or otherwise recover, the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee.

S. OTHER CERTIFICATIONS. In addition to the certifications indicated above, the CITY and CONSULTANT shall execute the certifications contained in Exhibit "I," CERTIFICATIONS, if agreed by the parties as applicable. These certifications are hereby incorporated and specifically made a part of this Agreement.

T. TITLE VI. CIVIL RIGHTS ACT OF 1964. During the performance of this Agreement, the CONSULTANT, for itself, its assignees and successors in interest agrees as follows:

1. Compliance with Regulations:

The CONSULTANT shall comply with the regulations relative to non-discrimination in Federally-assisted programs of the United States Department of Transportation (49 C.F.R. § 21, hereinafter referred to as "Regulations"), which are herein incorporated by reference and made a part of this Agreement.

2. Non-discrimination:

The CONSULTANT, with regard to work performed by it after award and prior to completion of the Contract work, shall not discriminate on the grounds of race, religion, color, sex, age, handicap, national origin, or political affiliation in the selection and retention of subcontractors, including procurements of materials and leases of equipment. The CONSULTANT shall not participate either directly or indirectly in the discrimination prohibited by Section 21.5 of the Regulations, including employment practices when the Contract covers a program set forth in Appendix B of the Regulations.

3. Solicitations for Subcontracts, including Procurements of Materials and Equipment:

In all solicitations, either by competitive bidding or negotiation made by the CONSULTANT for work to be performed under a subcontract, including procurements of materials or lease of equipment, each potential subcontractor or supplier shall be notified by the CONSULTANT of the CONSULTANT's obligations under this Agreement and the Regulations relative to non-discrimination on the grounds of race, religion, color, sex, age, handicap, national origin, or political affiliation.

4. Information and Reports:

The CONSULTANT shall provide all information and reports required by the Regulations, or directions issued pursuant thereto, and shall permit access to its books, records, accounts, other sources of information, and its facilities as may be determined by the CITY to be pertinent to ascertain compliance with such Regulations, orders, and instructions. Where any information required of the CONSULTANT is in the exclusive possession of another who fails or refuses to furnish this information, the CONSULTANT shall so certify to the CITY, and shall set forth what efforts it has made to obtain the information.

5. Sanctions for Non-compliance:

In the event of the CONSULTANT's non-compliance with the non-discrimination provisions of this Contract, the CITY shall impose such contract sanctions as it may determine to be appropriate, including, but not limited to:

(a) Withholding of payments to the CONSULTANT under the Contract until the CONSULTANT complies, and/or

(b) Cancellation, termination or suspension of the Contract, in whole or in part.

6. Incorporation of Provisions:

The CONSULTANT shall include the provisions of Paragraphs 1 through 6 of this Section T in every subcontract, including procurements of materials and leases of equipment, unless exempt by the Regulations, or directions issued pursuant thereto. The CONSULTANT shall take such action with respect to any subcontract or procurement as the CITY may direct as a means of enforcing such provisions, including sanctions for non-compliance. Provided, however, that in the event the CONSULTANT becomes involved in, or is threatened with, litigation with a subcontractor or supplier as a result of such direction, the CONSULTANT may request the CITY to enter into such litigation to protect the interests of the CITY and, in addition, the CONSULTANT may request the United States to enter into such litigation to protect the interests of the United States.

U. MINORITY BUSINESS ENTERPRISE.

(a) Policy. It is the policy of the CITY to ensure nondiscrimination in the award and administration of federally-assisted contracts and to use Disadvantaged Business Enterprises (DBEs) in all types of contracting and procurement activities according to State and Federal laws. To that end the CITY shall require CONSULTANT to comply with SCDOT's DBE program established in accordance with regulations of the United States Department of Transportation found in 49 C.F.R. § 26. This Contract is subject to the provisions of the SCDOT's DBE program and 49 C.F.R. § 26.

SCDOT utilizes the DBE Quarterly Reports and DBE Status Spreadsheet as tracking tools.

- The DBE Quarterly Report reflects quarterly and total payments to date for all DBE firms. A separate DBE Quarterly Report must be submitted for each DBE firm for every active contract even if no payments were made to DBEs during the specified reporting period.

- The DBE Status Spreadsheet reflects a summary of payments to all committed and non-committed DBE firms working on the project, and must be submitted along with the DBE Quarterly Reports.

Copies of the above referenced forms are attached and fillable documents, along with instructions, located on the SCDOT website at www.scdot.org.

The reporting quarter periods are January-March, April-June, July-September and October-December. The reports are due to the CITY's Project Manager by the 15th day of the next month following the end of each quarter. Future payments may be withheld if the DBE Quarterly Reports and the DBE Status Spreadsheet are not submitted by the established deadlines.

(b) Consultant/Subconsultant assurances. Neither the CONSULTANT, nor its subconsultants, shall discriminate on the basis of race, color, national origin, or sex in the performance of this Contract. The CONSULTANT shall carry out applicable requirements of 49 C.F.R. § 26 in the award and administration of federally-assisted contracts. Failure by the

CONSULTANT, or any of its subconsultants, to carry out these requirements is a material breach of this Contract, which may result in the termination of this Contract or such other remedy as the CITY deems appropriate. The CONSULTANT shall advise its subconsultants of these provisions by including this clause in each of its subcontracts.

(c) Quoter information. At the conclusion of this Contract, the CONSULTANT shall submit to the CITY the names and addresses of all subconsultants who quoted subcontracts for this Contract.

(d) Reports on Subconsultant payments. At the conclusion of this Contract, the CONSULTANT shall report to the CITY all payments made to subconsultants on this Contract. The report shall include the following information as to each subconsultant: the name and address of the subconsultant, and the total payments made to the subconsultant.

V. EQUAL EMPLOYMENT OPPORTUNITY. In connection with the execution of this Contract, the CONSULTANT shall not discriminate against any employee or applicant for employment because of race, religion, color, sex or national origin. The CONSULTANT shall comply with Executive Order 11246, as amended by the Executive Order 11375, and as supplemented by Department of Labor Relations (41 C.F.R. § 60) (Appendix II to 2 C.F.R. § 200) and shall take affirmative action to ensure that applicants are employed and that employees are treated during their employment without regard to their race, religion, color, sex, or national origin. Such actions will include, but not be limited to the following: employment, upgrading, demotion or transfer; recruitment or recruitment advertising; layoff or termination; rates of pay, or other forms of compensation; and selection for training, including apprenticeship.

W. PARTICIPATION BY FOREIGN CONSULTANTS AND SUBCONSULTANTS

The CITY will not consider for award any proposal submitted by any consultant, and will not consent to subletting any portions of the Contract to any subconsultant, of a foreign country during any period in which such foreign country is listed by the United States Trade Representative as discriminating against U. S. firms in conducting procurements for public works projects.

For the purpose of this Special Provision, any consultant or subconsultant who is a citizen or national of a foreign country or is controlled directly or indirectly by citizens or nationals of a foreign country, shall be considered to be a consultant or subconsultant of such foreign country.

X. COMPLIANCE CONCERNING ILLEGAL ALIENS. By execution of this Agreement the CONSULTANT as the prime consultant does hereby agree:

1. to certify its compliance with the requirements of Chapter 14 of Title 8 of the S.C. Code of Laws regarding Unauthorized Aliens and Public Employment;

2. to provide CITY with any documents required to establish such compliance upon request; and
3. to register and participate and require agreements from sub-consultants to register and participate in the federal work authorization program to verify the employment authorization of all new employees, or to employ only workers who supply the documents required pursuant to S.C. Code 8-14-20(B)(2).

Y. IRAN DIVESTMENT ACT. By execution of this Agreement, CONSULTANT certifies that CONSULTANT and all of CONSULTANT's subconsultants, contractors, subcontractors, employees, and agents are not listed on the current version of the Iran Divestment Act List and will comply with all applicable provisions of the Iran Divestment Act, Title 11, Chapter 57 of the South Carolina Code of Laws, as amended. The CITY must be notified immediately if at any time during the Contract term, the CONSULTANT or any of CONSULTANT's subconsultants, contractors, subcontractors, employees, or agents are added to the Iran Divestment Act List.

Z. SUCCESSORS AND ASSIGNS. The CITY and the CONSULTANT each binds itself, its successors, and assigns to the other party with respect to these requirements, and also agrees that neither party shall assign, sublet, or transfer its respective interest in the Agreement without the written consent of the other.

AA. DEBARMENT AND SUSPENSION. If CONSULTANT is placed on the government wide Excluded Parties List System in the System for Award Management at any time during the performance period of this Contract, the Contract may be terminated.

BB. CLEAN AIR ACT AND FEDERAL WATER POLLUTION CONTROL ACT. CONSULTANT must remain in compliance with all applicable standards, orders, or regulations issued pursuant to the Clean Air Act (42 U.S.C. 7401 – 7671q) and the Federal Water Pollution Control Act as amended (33 U.S.C. 1251 – 1387).

CC. ENERGY POLICY AND CONSERVATION ACT. CONSULTANT should comply with standards and policies relating to energy efficiency contained in the Plan for State Energy Policy (S.C. Code §§ 48-52-210, et seq.).

DD. PROCUREMENT OF RECOVERED MATERIALS. CONSULTANT should comply with section 6002 of the Solid Waste Disposal Act, as amended by the Resource Conservation and Recovery Act.

EE. EXECUTION IN COUNTERPARTS. This Agreement may be executed and delivered in counterparts, and if so executed, shall become effective when a counterpart has been executed and delivered by both Parties hereto. All counterparts taken together shall constitute one and the same Agreement and shall be fully enforceable as such. Delivery of counterparts via facsimile transmission or via email with scanned attachment shall be effective as if originals thereof were delivered.

FF. ENTIRE AGREEMENT. This Agreement with referenced exhibits, and/or attached certifications, and attachments constitutes the entire Agreement between the parties and, except for contract modifications prepared in accordance with provisions thereof, there are no collateral contracts or agreements between the parties relating to this work. The execution of this Agreement by the parties hereto represents the execution of each individual certification hereof. This Agreement and Contract is to be interpreted under the laws of the State of South Carolina.

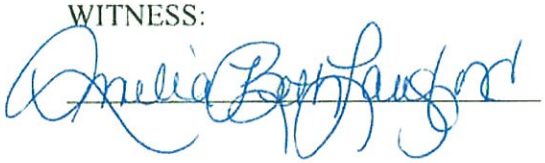
[Signature Page to follow]

IN WITNESS WHEREOF, the parties herein have executed this Agreement as of the day and year first written above.

Signed, sealed and executed for the CONSULTANT:

HDR ENGINEERING INC. OF THE CAROLINAS

WITNESS:



By: _____
(Signature)

Name: Jonathan Henderson

Title: Vice President

Signed, sealed and executed for the CITY:

CITY OF CHARLESTON

WITNESS:

_____

By: _____
(Signature)

Name: _____

Title: _____

EXHIBIT I

CERTIFICATIONS

ENGINEER CERTIFICATION FOR
PROJECT PLANS AND SPECIFICATIONS

Consultant's Name: _____

Route Number: _____

File Number: _____

Project Number: _____

Project Description: _____

In order to advance projects in an expeditious and efficient manner, CITY hereby assigns to the above-named consulting firm, hereinafter referred to as the Undersigned, and the Undersigned accepts full responsibility for all project plan and specification reviews including the approval of all information, dimensions, quantities, details and designs involved in the preparation and production of the project plans and specifications for the above-named project. In accepting this responsibility, the undersigned makes the following certification:

THE UNDERSIGNED CERTIFIES to be a South Carolina registered engineering firm with absolute authority to accept the responsibility for the project plans and specification involved in the project; and,

THE UNDERSIGNED CERTIFIES to produce project plans and specifications that will conform with all guidelines and requirements stated in this Agreement unless a specific deviation has been requested in writing and approved by the CITY and the Federal Highway Administration (FHWA); and,

THE UNDERSIGNED CERTIFIES that all project plans and specifications will be checked in their entirety for completeness, correctness, accuracy and consistency with other details in all respects, and will be thoroughly reviewed by the undersigned consulting firm to be in compliance with the requirements in effect at the time of submission to the CITY; and,

THE UNDERSIGNED CERTIFIES that each project plan sheet submitted on this project will be signed and sealed by a South Carolina Registered Engineer; and,

THE UNDERSIGNED CERTIFIES that all of the work performed under this Contract will be performed in accordance with the special provisions and specifications, and will be performed so as to meet or exceed reasonable standard of care of the profession; and

THE UNDERSIGNED CERTIFIES that by signing and sealing the plans, the undersigned assumes full, complete and conclusive liability for all discrepancies, errors or omissions found at any time in the plans or specifications. Further, that all corrections to the plans or specifications will be made at the consultant's expense and the consultant will not include the cost of corrections of faulty or deficient work on its invoice to the CITY; and

THE UNDERSIGNED FURTHER CERTIFIES that it agrees that failure to meet any of the above requirements may be deemed just cause, at the discretion of the CITY, for withholding payment on the Contract and/or termination of the Contract, without damages due to the Undersigned by CITY.

This Engineering Certification for Project Plans and Specification is attached to and becomes part of the Agreement and project, with all terms and conditions of the Agreement and project applicable hereto.

Seal

9/11/20
Date

Firm: HDR Engineering Inc, of the Carolinas

By: _____

Title: Vice President

CERTIFICATION OF CONSULTANT

I hereby certify that I am a duly authorized representative of the Consultant and that neither I nor the above Consultant I here represent has:

(a) employed or retained for a commission, percentage, brokerage, contingent fee, or other consideration, any firm or person (other than a bona fide employee working solely for me or the above Consultant) to solicit or secure this Agreement;

(b) agreed, as an express or implied condition for obtaining this Agreement, to employ or retain the services of any firm or person in connection with carrying out the Agreement, or

(c) paid, or agreed to pay, to any firm, organization or person (other than a bona fide employee working solely for me or the above Consultant) any fee, contribution, donation, or consideration of any kind for, or in connection with, procuring or carrying out the Contract except as here expressly stated (if any).

(d) been debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department, state department or agency thereof. The Consultant further certifies full compliance with 23 CFR 633 Subpart A of the Federal Code.

I acknowledge that this certificate is to be furnished to the CITY, the Federal Highway Administration, and the U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

9/11/20

(Date)

(Consultant Signature)

Title: Vice President

CERTIFICATION OF CITY

I hereby certify that I am the _____ of the City of Charleston and that the above Consultant or its representative has not been required, directly or indirectly, as an express or implied condition in connection with obtaining or carrying out this Agreement to:

(a) employ or retain, or agree to employ or retain, any firm or person, or

(b) pay, or agree to pay, to any firm, person, or organization, any fee, contributions, donations, or consideration of any kind, except as here expressly stated (if any).

I acknowledge that this certificate is to be furnished to the Federal Highway Administration and U. S. Department of Transportation, and is subject to applicable State and Federal laws, both criminal and civil.

_____ _____

(City Signature)

(Date) Title: _____

Certification for Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any Federal agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, "Disclosure Form to Report Lobbying", in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subgrants, and contracts and subcontracts under grants, subgrants, loans, and cooperative agreements) which exceed $100,000, and that all such subrecipients shall certify and disclose accordingly.

This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by Section 1352, Title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

_____ _____

(Date) (City Signature)

Title: _____

9/11/20

(Date) (Consultant Signature)

ATTACHMENT "A"

SCOPE OF SERVICES

AND SCHEDULE

Contents

PROJECT DESCRIPTION 1

QUALITY CONTROL 2

CONTRACT CHANGES 2

1. **PROJECT ORGANIZATION AND MANAGEMENT** 2
   - 1.1. Project Management* 2
   - 1.2. Schedule* 2
   - 1.3. Progress Report* 3
   - 1.4. Project Reporting to FHWA* 3
   - 1.5. Development of Agreements* 3

2. **AERIAL MAPPING and FIELD SURVEYS** 3
   - 2.1. Aerial Mapping 3
   - 2.2. Field Surveys 3

3. **TRAFFIC STUDIES AND MODELING** 6
   - 3.1. Field Survey* 6
   - 3.2. Traffic Data Collection* 6
   - 3.3. Work Zone Traffic Control Study* 7
   - 3.4. Traffic Analysis* 8

4. **ENVIRONMENTAL SERVICES** 8
   - 4.1. Initial Field Surveys and Project Initiation 9
   - 4.2. Environmental Analysis, Documentation, and Review 9
   - 4.3. Permitting 15
   - 4.4. Public Involvement* 17

5. **ROADWAY/PATH DESIGN** 18
   - 5.1. Conceptual Plans* 18
   - 5.2. Preliminary Road/Path Design 19

6. **STRUCTURAL DESIGN** 19
   - 6.1. Preliminary Bridge Design 20
   - 6.2. Conceptual Aesthetics* 21

7. **HYDROLOGY AND HYDRAULIC DESIGN** 21
   - 7.1. Roadway Drainage* 22
   - 7.2. Bridge Hydraulics Modeling 22

8. **GEOTECHNICAL SERVICES AND PAVEMENT DESIGN** 23
   - 8.1. Geotechnical Field Exploration* 24
   - 8.2. Field Operations Items* 25
   - 8.3. Laboratory Testing* 26
   - 8.4. Preliminary Geotechnical Baseline Report* 26

8.5. Preliminary Geotechnical Seismic Characterization* 26
8.6. Site-Specific Seismic Response Analysis (SSRA)* 27

9. UTILITY COORDINATION 27
9.1. Early Utility Coordination 28
9.2. Preliminary Utility Coordination 29
9.3. Constructability Review Meeting * 30

10. SUBSURFACE UTILITY ENGINEERING (SUE) 30
10.1. SUE Work* 30
10.2. Designating Services* 30

11. RIGHT OF WAY 31
11.1. Right of Way Acquisition Services* 31
11.2. Evaluation of Marina Operations* 33

12. DEVELOPMENT OF THE RFQ/RFP 33
12.1. Development of the RFQ* 33
12.2. Development of the RFP for Industry Reviw, Final RFP and Addenda* 34

13. PROCUREMENT 35

14. DESIGN PLAN REVIEW AND ADMINISTRATION 35
14.1. Project Organization and Management Responsibilities 36
14.2. Roadway/Path Design Review Responsibilities 37
14.3. Structural Design Review Responsibilities 38
14.4. Movable Span Structural, Mechanical, Electrical, & Facilities Design Review Responsibilities 39
14.5. Hydraulic Design Review Responsibilities 42
14.6. Geotechnical Design Review Responsibilities 43
14.7. Traffic Engineering Review Responsibilities 43

15. CONSTRUCTION ENGINEERING, INSPECTION AND ADMINISTRATION (CEI&A) 44

PROJECT DESCRIPTION

The City of Charleston (CITY) proposes to construct a separated bicycle and pedestrian bridge across the Ashley River and adjacent to US 17. In addition, bicycle/pedestrian improvements are included at the intersection of US 17 Off Ramp to Bee Street and Lockwood Drive, the intersection of the West Ashley Greenway/Folly Road/Wesley Drive, and the intersection of West Ashley Greenway/Wappoo Drive.

The CITY is contracting with HDR Engineering Inc of the Carolinas (CONSULTANT) to complete the field surveys, geotechnical investigations, traffic studies and modeling, environmental document, permitting, conceptual road/path design, conceptual bridge design, preliminary utility report, subsurface utility engineering, and preliminary hydraulic study. Additionally, the CONSULTANT is being asked to provide support during development of RFQ/RFP procurement, design plan review, and administration during construction. This support for the CITY capital project staff is requested and needed during the preparation of the design build package and contract and administration of the project during construction.

This preliminary information is critical to the project and is required to be included in the Request for Proposals (RFP). The CONSULTANT will be required to expedite the delivery of these services.

ANTICIPATED MILESTONE PROJECT SCHEDULE

Notice-to-Proceed	September 22, 2020
Complete Surveys	November 15, 2020
Public Information Meeting	April 1, 2021
Advertise Request for Qualifications	May 1, 2021
Complete Non-programmatic Categorical Exclusion	July 1, 2021
Deliver Preliminary Hydraulic Study	July 1, 2021
Deliver Preliminary Road Plans	July 1, 2021
Deliver Preliminary Bridge Plans	July 1, 2021
Deliver Preliminary Utility Report	July 1, 2021
Subsurface Utility Report	July 1, 2021
Deliver Wetland Jurisdictional Determination	July 1, 2021
Deliver Environmental Analysis & Review	July 1, 2021
Deliver Geotechnical Baseline Report	July 1, 2021
Traffic Studies and Modeling	July 1, 2021
Issue Request for Proposals for Industry Review	August 1, 2021
Issue Final Request for Proposals (Obligation)	September 30, 2021
Submittal of Technical Proposals	December 1, 2021
Submittal of Cost Proposals	December 31, 2021
Notice of Award	February 1, 2022

QUALITY CONTROL

It is the intention of the CITY that CONSULTANTS are held responsible for their work. The CONSULTANT shall implement all necessary quality control measures to produce the required scope of work that conforms to CITY and FHWA guidelines.

The CONSULTANT shall, without additional compensation, correct all errors or deficiencies in the designs, maps, drawings, specifications and/or other services.

QUALITY ASSURANCE

CITY will perform quality assurance reviews for all deliverables under this scope. CONSULTANT will allow two weeks for CITY quality assurance reviews. CONSULTANT will address all comments and incorporate necessary revisions prior to final delivery dates in milestone schedule.

CONTRACT CHANGES

CONSULTANT shall notify CITY of any event that causes or may cause a change in the contract within fifteen (15) working days of the incident. CITY will not be responsible for incidents that remain unreported longer than the time specified above.

SUMMARY OF WORK

Task 1: Project Organization and Management
Task 2: Aerial mapping and Field surveys
Task 3: Traffic Studies and Modeling
Task 4: Environmental Services
Task 5: Roadway & Path Design
Task 6: Structural Design
Task 7: Hydrology and Hydraulic Design
Task 8: Geotechnical Services and Pavement Design
Task 9: Utility Coordination
Task 10: Subsurface Utility Engineering (SUE)
Task 11: Right of Way (ROW)
Task 12: Support during Development of RFQ & RFP
Task 13: Support during Procurement
Task 14: Design Plan Review and Administration
Task 15: Construction Engineering, Inspection, and Administration

1. PROJECT ORGANIZATION AND MANAGEMENT

1.1. Project Management*

This task includes the Prime Consultant Project Manager's time for management of the project including coordination and correspondence with the CITY, coordination with subconsultants, coordination and data collection of other entities such as the Charleston County, SCDOT, FHWA, preparing meeting minutes, four (4) project site visits, and attending up to twenty (20) (2 per month) coordination meetings. The CONSULTANT will provide a summary of each status meeting.

1.2. Schedule*

The CONSULTANT will develop a flow chart of activities and a milestone schedule. The flow chart and schedule will provide the CITY with a sequential scheme of events and dates to measure the project's progress.

1.3. Progress Report*

Each month the CONSULTANT will provide a progress report along with the monthly invoice that detail the month's activities and reports any upcoming project milestones.

1.4. Project Reporting to FHWA*

Assist the CITY in reporting project progress in accordance with federal grant requirements Attend coordination and update meetings throughout project development and delivery.

1.5. Development of Agreements*

Assist the CITY in the development of bridge operations and maintenance agreement with SCDOT.

Deliverables*:

- Twenty (20) meeting summaries
- Four (4) site visit summaries
- Schedule
- Four (4) Project Updates to FHWA
- Approximately ten (10) invoices and progress reports.
- One (1) operations and maintenance agreement

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

The CONSULTANT will supplement the aerial mapping by performing field surveys as outlined below to determine accurate elevations and locations of existing facilities (e.g., utilities, roadways, bridges, and culverts) for design purposes. All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field

survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection. Along Folly Road from Windermere Drive to 100 feet north of the Wesley Drive Intersection. Along Wesley Drive from Folly Road 100 feet north.
- West Ashley Greenway and Wappoo Road intersection. Along Wappoo Drive from Pinckney Park Drive to Harrison Avenue.

2.2.1. Project Survey Control*

The CONSULTANT will establish Project Survey Control. The project survey control will be tied to the South Carolina State Plane coordinate system to be a basis for all surveys required on the project using the NAD83(current adjustment) horizontal datum, the NAVD88 vertical datum and the International Foot. Supplemental control will be established as needed. A minimum of (2) Project Benchmarks will be established. Additional Project Benchmarks will be established depending on project length. It is assumed that approximately **10** survey control points and **5** project benchmarks will be needed for this project.

2.2.2. Best Fit Existing Roadway Alignment (ERA)*

The CONSULTANT will establish a Best Fit Existing Roadway Alignment (ERA) based on the field survey of the existing centerline of all SCDOT and CITY roads within the project limits. If roads exist within the project limits but are outside the SCDOT or CITY Right-of-Way, best survey practices will be used to develop these rights-of-way. It is assumed that approximately **8300** feet of best fit road alignment will need to be calculated.

2.2.3. Courthouse Research*

The CONSULTANT will conduct Courthouse Research on properties, within the project limits, to obtain the most current deeds, plats, ownership information and tax map number from the County Register of Deeds. The plats and deeds will be used to create property strip maps. CONSULTANT will also obtain the most current

SCDOT record plans and other Right-of-Way information. It is assumed that approximately **56** properties will be researched for the Project and approximately **8300** linear feet of road centerline will be used to establish Right-of-Way lines.

2.2.4. Field Survey Detectable Property Monuments*

The CONSULTANT will perform reconnaissance and Field Survey Detectable Property Monuments (front monuments if sufficient numbers are found) within the project limits to facilitate the mapping of the properties from deed and/or plat information of record. The monuments that are found will be tied into the project's horizontal survey control network. This is considered a partial property survey and does not constitute a full boundary survey. It is assumed that approximately **56** properties will be within the Project limits.

2.2.5. Property Strip Map and the Existing Road Rights-of-Way*

The CONSULTANT will create a Property Strip Map and the Existing Road Rights-of-Way. Property corners found and field surveyed will be used to produce a property strip map which will show property lines calculated from existing deeds and/or plats of record. The existing right-of-way will be mapped for all SCDOT or CITY roads within the project limits utilizing the final Best Fit Existing Roadway Alignment (ERA), evidence of right-of-way (existing road features and/or found right-of-way monuments) and existing SCDOT record plans as well as other right-of-way information. The Property Strip Map is considered a partial property survey and does not constitute a full boundary survey.

2.2.6. Supplement Aerial Mapping*

CONSULTANT will perform **Supplemental Aerial Mapping** by field surveying those planimetric (2D) and topographic breakline (3D) features (such as buildings, fences, trees, poles, top bank, edge of asphalt, walls, etc.) that are obscured on the aerial mapping within the project limits. It is assumed that approximately **70** acres will need to be surveyed.

2.2.7. Drainage Feature Surveys*

CONSULTANT will perform **Drainage Feature** surveys of outfall ditches and creeks to include location and cross sections at intervals of 50 feet, for a length of no less than 400 feet up-stream and 400 down-stream as measured from the end of the drainage structure. Cross sections will extend 50 feet from the top bank of each drainage feature. Drainage surveys will include ditches upstream as well as downstream of each main drainage feature. It is assumed that approximately **800** feet of drainage features will need to be surveyed.

2.2.8. Storm Drainage Structures*

CONSULTANT will locate and field survey existing **Storm Drainage Structures** within the project limits. Information obtained will include rim and invert elevations, pipe size and pipe material. It is assumed that approximately **25** storm drainage structures will need to be surveyed.

2.2.9. Gravity Sanitary Sewer Manholes*

CONSULTANT will field survey **Gravity Sanitary Sewer Manholes** with connectivity between manholes to include rim elevations, invert elevations, type and size of pipe. It is assumed that approximately **10** gravity sanitary sewer manholes will need to be surveyed.

2.2.10. Wetland Boundaries*

Wetland boundaries were included under a separate Small Professional Services contract with the CITY.

2.2.11. Geotechnical Bore Holes*

CONSULTANT will field survey the horizontal location of **Geotechnical Bore Holes** including a ground elevation at each bore hole. It is assumed that approximately **14** geotechnical bore holes will need to be surveyed.

2.2.12. Traffic Control*

CONSULTANT will maintain appropriate signage for **Traffic Control** purposes at all times when working within or near the existing traffic areas. It is assumed that approximately **(5)** days of traffic control will be needed.

2.2.13. Bathymetric Surveys*

CONSULTANT will perform bathymetric surveys of the Ashley River. Surveys shall extend 2500 ft. downstream of the US 17 Northbound Bridge, and 2500 ft. upstream of the US 17 Southbound Bridge. The approximate 250' area between the two bridges will be surveyed.

2.2.14. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.
- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- One (1) digital copy of all courthouse Deeds, Plats and Property Ownership records.
- One (1) digital copy of signed and sealed Wetland Exhibit survey.
- One (1) digital copy of signed and sealed Survey Control Data sheet(s).
- Digital file name conventions will follow the SCDOT survey manual specifications.

3. TRAFFIC STUDIES AND MODELING

3.1. Field Survey*

The CONSULTANT will conduct field surveys to familiarize and document existing operating conditions within the study area. The field surveys may include digital photographs and videos of existing conditions, observations of traffic patterns, and observations of traffic movements along corridor segments.

3.2. Traffic Data Collection*

The CONSULTANT will review available traffic volume data provided by the SCDOT, including data from count stations within the study area (Stations 123, 585, and 275), existing and historic average annual daily traffic (AADT) and other data collected by or for recent projects within the study area. The CONSULTANT will also review data,

findings and conclusions from studies and plans such as the US 17 Corridor Congestion Improvement Study and the CITY's People Pedal Plan. Due to traffic impacts caused by COVID-19, the CONSULTANT shall make use of data collected as a part of recent studies, such as the US 17 Corridor Congestion Improvement Study, and will factor those counts based on the year collected to approximate a 2020 traffic volume baseline.

The CONSULTANT will acquire 24-hour ADT information from previous studies, including vehicle classification, at the following locations:

- US 17 NB off-ramp to Lockwood Drive SB, channelized right turn free-flow lane
- US 17 NB on-ramp from Lockwood Drive NB
- SC 30/James Island Connector on-ramp from Lockwood Drive SB

The CONSULTANT will acquire peak hour turning movement traffic count data and pedestrian/bicyclist crosswalk data from the US 17 Corridor Study at selected intersections within the study area. Data will be reviewed at the following locations:

- Folly Road at Windermere Boulevard
- Folly Road at Wesley Drive
- Folly Road at Albemarle Drive
- US 17 NB off ramp at Lockwood Drive and Bee Street
- US 17 SB off ramp/Spring Street at Lockwood Drive

The CONSULTANT will establish heavy vehicle percentages for use at intersections based on vehicle classification information collected at the above locations.

The CONSULTANT will obtain the most recent five years (2015 – 2019) of crash data from the SCDOT and/or the South Carolina Department of Public Safety. The crash data will consist of the segment and intersection summaries for the roadway segments, ramps, and intersections within the study area. Individual crash reports for the crashes may also be obtained to cross-check against agency coding errors and to provide more detailed information about crashes. Prior to ordering the accident data, the CONSULTANT will provide a draft copy of the accident data request to the CITY for their review and concurrence.

The CONSULTANT will obtain copies of traffic signal construction plans and currently installed traffic signal timing data sheets from the SCDOT or CITY for all signalized intersections impacted by the project.

3.3. Work Zone Traffic Control Study*

The CONSULTANT will evaluate Preliminary work zone traffic control scenarios throughout the project as needed to determine constructability and all ROW requirements. The evaluation will include items like lane widths, transition taper widths, and any geometry necessary to define temporary roadway alignments. All work zone traffic

control studies shall conform to the SCDOT'S Design Manual and Manual on Uniform Traffic Control Devices, latest revision.

Assumptions:

- Temporary pavement design is not included

3.4. Traffic Analysis*

The CONSULTANT will conduct a crash analysis incorporating the crash data and including collision diagrams, and classification of crashes along segments and at intersections. Crash classifications will be by property damage, injury and fatality accidents, and by accident type (rear-end, side-swipe, run-off-road).

The CONSULTANT will prepare traffic projections for opening and design year traffic conditions. Traffic projections will be created using historic and existing traffic volume data, information contained in the regional Travel Demand Model, historical data from SCDOT, land-use plans, and other information as appropriate.

The CONSULTANT will develop an AM and a PM model using data and concept illustrations found in the US 17 Corridor Study. Models will represent an Existing Conditions, as well as for a No-Build and a Build condition. The CONSULTANT will use Synchro/SimTraffic to develop these models and will make use of methodologies described in the Highway Capacity Manual, 6th Edition (HCM6).

The CONSULTANT will use SimTraffic to provide information on modeled queue lengths at the two signalized intersections at Lockwood at Bee Street and at Lockwood at Spring Street.

The CONSULTANT will prepare a **Traffic Analysis Study Report** summarizing the data collection activities, crash evaluation, and analysis of the proposed modification to pedestrian infrastructure at the intersection of Folly Road with Wesley Drive and Windermere Boulevard. Also included will be the results of the operational analysis on Lockwood Drive, including intersection delay, level of service (LOS) and queue length.

Recommendations may include, but are not limited to, signal phasing and/or timing modifications and lane geometry modifications.

Assumptions:

- The crash evaluation is intended to summarize crashes within the study area and to provide information for design. Highway Safety Manual Part C predictive crash analysis methodologies will not be included in the crash evaluation.
- Synchro output will make use of HCM6 methodologies. In instances of HCM6 limitations, previous versions of HCM will be used.
- No traffic counts will be acquired as part of the contract.

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall

be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Initial Field Surveys and Project Initiation

4.1.1. Desktop Survey*

The CONSULTANT shall perform a desktop survey including but not limited to: assessing readily available GIS data (soils, hydrography, National Wetlands Inventory).

Assumptions:

- No overnight stays or direct costs required.

Deliverables:

- No specific deliverables anticipated.

4.1.2. Agency Meetings*

As directed by the CITY, the CONSULTANT shall attend one Agency Coordination Effort (ACE) meeting to discuss the project. In addition, as directed by CITY, the CONSULTANT will schedule one onsite meeting with appropriate State and Federal agencies to review the proposed project, discuss any particular regulatory concerns. The CONSULTANT shall make a determination of the aquatic significance of the river, and confirm these findings with resource and regulatory agency personnel.

Assumptions:

- 1 ACE meeting presentation;
- 2 consultants to attend ACE meeting(s); and
- 1 on site agency meeting.

Deliverables:

- ACE meeting presentation and materials; and
- 2 agency meeting summaries.

4.1.3. Jurisdictional Determination

Jurisdictional determination and critical area coordination were included under a separate Small Professional Services contract with the CITY.

4.2. Environmental Analysis, Documentation, and Review

4.2.1. Geotechnical Studies Programmatic Categorical Exclusion Document*

The CONSULTANT will prepare a Programmatic Categorical Exclusion (PCE) in accordance with the National Environmental Policy Act of 1969 for the potential impacts of the geotechnical investigations. The purpose of these investigations is to provide information for preliminary design. Once the plan is developed identifying the locations of the geotechnical investigations, the

CONSULTANT will complete the PCE using the form developed by FHWA and SCDOT.

Deliverables:

- Digital copy of Programmatic CE for Geotechnical Studies

4.2.2. Non-Programmatic Categorical Exclusion Document*

In consultation with the Federal Highway Administration, the City has determined that the project can be processed as a Non-Programmatic Categorical Exclusion. The CONSULTANT shall be responsible for the preparation of a Non-Programmatic Categorical Exclusion that 1) quantifies the impacts of a conceptual alternative* and 2) identifies environmental constraints for a design build contractor using the defined NEPA Study Area in **Attachment A.*** The purpose and need for the project should be developed using the results and any recommendations of the traffic study.

Assumptions:

- CE will be written in a manner that provides flexibility for a design build contractor to select a build alternative without formal re-evaluation. The environmental document should identify environmental constraints within the study area and thresholds for environmental impact (e.g. 3 acres of wetland impact or less) that would allow the design build contractor to proceed without need for re-evaluation of the NEPA document.

Deliverables:

- Digital copies of the Non-Programmatic CE.

The Non-Programmatic CE will be comprised of the following technical studies:

1. Land Use* - The CONSULTANT will include a discussion of the existing land uses within the project study area and any future land use plans for the area.

   Deliverables:

   - No specific deliverables anticipated.

2. Farmlands* – CONSULTANT will include a discussion of farmland impacts, including a determination of the presence of prime or unique farmlands or farmlands with statewide importance. Coordination with the NRCS, including completion of Form AD-1006, and review of the alternatives pursuant to the Farmland Act will be completed.

   Deliverables:

   - No specific deliverables anticipated.

3. Cultural Resources (Historical, Archaeological)* – Investigations shall be conducted as required. and may include terrestrial archaeological survey,

underwater archaeological survey, and architectural survey. Cultural resource reports will comply with state and federal requirements. However, with findings of up to five non-significant sites, a form report format (provided by the CITY) will be utilized. All SHPO coordination shall occur through CITY.

Deliverables:

- Electronic PDF Version of Cultural Resource Report
- 8 hard copies of draft and final cultural resources report (16 total)

4. Section 4(f) / 6(f)* - CONSULTANT shall identify properties within the project corridor that are protected under Section 4(f) or Section 6(f) and the impacts of the project on the resource(s). If necessary, a Draft and Final Section 4(f) Evaluation and/or De minimus/programmatic 4(f) shall be prepared.

   Deliverables:

   - No specific deliverables anticipated.

5. Parks and Recreational Areas* – CONSULTANT shall identify these areas within the project area and the impacts of the project on the resource(s).

   Deliverables:

   - No specific deliverables anticipated.

6. Social and Economic* - CONSULTANT shall develop a description of the existing demographic, social, and land use conditions.

   Deliverables:

   - No specific deliverables anticipated.

7. Displacements* – CONSULTANT will develop a conceptual design to avoid displacements.

   Assumptions:

   - Relocation Study Report is not included

8. Environmental Justice* - CONSULTANT shall identify any low-income and/or minority areas within the general project area, using US census data and determine if there are potentially disproportionately high and adverse effects on these populations as a result of the project.

   Deliverables:

   - No specific deliverables anticipated

9. Essential Fish Habitat* - CONSULTANT shall complete field evaluation for EFH as defined by the Magnuson-Stevens Fishery Conservation and Management Act, and prepare an EFH Assessment.

   The EFH Assessment will contain:
   a. Project coordinates
   b. Description of the proposed projects including:
      i. Alignment
      ii. Anticipated construction methods and access
      iii. Existing impacts to be removed (e.g. removal of existing fill from marsh)
      iv. Detailed description of habitat present and the quality and functions of habitat, including location of tidal creeks
      v. Location maps, bridge profiles, and preliminary plans.
   c. Analysis of potential adverse effects of the project on EFH and managed species, including quantities of impacts to EFH.
   d. Avoidance, minimization, and mitigation measures including:
      i. Efforts to minimize impacts
      ii. BMP requirements
      iii. Limitation to in water work

   CITY will provide the EFH Assessment to FHWA and National Oceanic and Atmospheric Administration (NOAA) – National Marine Fisheries Service (NMFS).

   CONSULTANT will coordinate with CITY and NOAA-NMFS if design changes affect the EFH Assessment.

   Deliverables:
   - One (1) PDF of EFH Assessment
   - Meeting materials (PDFs) including graphics and maps, and agendas for meetings
   - Meeting minutes (PDFs)

   Meetings/Travel:
   - One (1) site visit with NOAA-NMFS on the EFH

10. Compensatory Mitigation*

    If necessary, compensatory mitigation would be provided through an appropriate mitigation bank or through the purchase of credits from an approved mitigation bank that services the area. The CITY will be responsible for acquiring mitigation credits.

11. US Coast Guard (USCG) Coordination*

    The CONSULTANT will coordinate with the FHWA, CITY, and USCG to determine the level of consultation required for the project. During the CE, the CONSULTANT will complete the USCG Bridge Permit Questionnaire and submit to the CITY.

    - Notification Package
    - Responses to public and/or agency comments

12. Hazardous Waste and Underground Storage Tanks* – In assessing the environmental liabilities associated with the proposed new right of way, the CONSULTANT shall prepare a Limited Phase I Environmental Site Assessment (ESA) Report for up to fifty (50) parcels of land (in general accordance with ASTM 1527-13). The Limited Phase I ESA Reports will not include property chain of ownership or title information, ASTM Questionnaire, or interviews with property owners. All property reconnaissance will be conducted from the public thoroughfares. Local/historical records review will be confined to minimum search distances from the project corridor limits relative to the requirements of the ASTM 1527-13. Documents such as notices of violation, individual property contamination studies, and individual property remediation reports from state and local agencies will be reviewed as available. No sampling or laboratory analysis of any kind is included within this scope of services.

    Deliverables:
    - Electronic PDF Version of Phase I; and
    - # of hard copies of Limited Phase I __1__.

13. Wetlands / Water Quality* – Following completion of the preliminary project design, the CONSULTANT shall quantify the anticipated impacts to jurisdictional waters of the U.S., and provide a qualitative discussion regarding the types of streams, wetlands, and other waters of the U.S. being impacted in the context of the adjacent and surrounding waters of the U.S., including proximity of 303(d), TMDL, ORW, tidal, and shellfish beds. If the project would be constructed in the vicinity of 303(d), TMDL, ORW, tidal, and shellfish beds, then stormwater control measures, both during construction and post-construction would be required in accordance with the CITY's MS4 Permit. The CONSULTANT shall also include a discussion regarding the overall effects to water quality.

    Deliverables:
    - No specific deliverables anticipated.

14. Threatened & Endangered Species Survey* - CONSULTANT will perform field reviews to document the presence or absence of potential habitat for federally listed threatened or endangered species. A wood stork survey was included in the small purchase agreement with the CITY. For any additional species determined to have potential habitat within the project study area, species-specific surveys will be

conducted during the U.S. Fish and Wildlife Service's designated optimal survey windows as applicable for the specific species. The results of the field reviews/surveys will be incorporated into the environmental document, generally only a Biological Assessment (BA) for Threatened and Endangered Species if the document is a CE. The CONSULTANT shall comply with Section 7 of the Endangered Species Act, and provide the appropriate reports to the CITY. If informal consultation with the USFWS is required, CITY shall be responsible for performing this part of the project development process on behalf of SCDOT. Any concessions in either the scope of work or construction activities or mitigation measures will require prior CITY approval, and once approved by USFWS, shall be included as an environmental commitment in the environmental document. Any correspondence or communication with USFWS must receive prior approval by CITY. If formal consultation is required, FHWA will initiate and handle, but the Consultant will be required to provide supplemental information.

Wood Stork Survey was included under a separate Small Professional Services contract with the CITY.

Assumptions:

- BA will be completed.

Deliverables:

- Electronic PDF Version of BA.

15. Environmental Commitment Form*

CONSULTANT will complete an Environmental Commitment Form and include it in the front of the Environmental Document. The CONSULTANT will utilize standard commitment language provided in the Environmental Commitment Form template. If a non-standard commitment is required, CONSULTANT will provide draft language to the CITY and FHWA for review and approval. The City of Charleston is responsible for the commitments.

Deliverables:

- Electronic version of Environmental Commitment Form.

4.2.3. QA/QC of Environmental Document*

CONSULTANT will follow ESO's QA/QC Guidance and complete required reviews of the environmental document.

Deliverables:

- QA/QC review checklist.

4.3. Permitting

1. US Coast Guard (USCG) Permitting*

   The CONSULTANT will prepare the Section 9 Bridge Permit Application, if necessary, in accordance with the USCG's Bridge Permit Application Guide. The application will include a copy of the CE and conceptual bridge design for the preferred alternative.

   The CONSULTANT will prepare and submit the application to the CITY after FHWA approval of the FONSI. The CITY will be responsible for submitting the Questionnaire and Section 9 Bridge Permit Application to the USCG, if necessary.

   The CONSULTANT will be responsible for response to comments on the application, with CITY and FHWA review.

   The CONSULTANT will prepare a Vessel Impact Assessment describing the following:
   a. Vessels on the waterway that are engaged in emergency operations, national defense activities, or channel maintenance, and potential impacts to their operation
   b. Present and prospective recreational and commercial navigation on the waterway, indicating whether the proposed project will have an impact on the safe, efficient movement of segment of the present or prospective recreational/commercial fleet operating on the waterway
   c. Description of the survey methods and results.

   Deliverables:

   Deliverables:
   - One (1) PDF of the US Coast Guard Bridge Permit Questionnaire
   - One (1) PDF of the US Coast Guard Bridge Application, if necessary
   - Meeting materials (PDFs) including graphics and maps, and agendas for meetings
     - Meeting minutes (PDFs)
     - One (1) PDF of the Navigation Survey Results
     - One (1) PDF of the Vessel Impact Assessment Report

   Meetings:
   CONSULTANT will attend two (2) meetings via phone call with the US Coast Guard and FHWA regarding bridge height and Section 9 Coast Guard permitting.

   Decisions/Actions by Others:
   The CITY will be responsible for submitting the HDR prepared Questionnaire and HDR prepared Section 9 Bridge Permit Application to the USCG.

2. US Army Corps of Engineers (USACE) Permitting*

   The CONSULTANT is responsible for securing all permits/certifications involved with acquiring an approved USACE permit to include but not limited to Chas.

Dist. Corps of Engineers Individual Permit, Coastal Zone Consistency (CZC), Critical Area Permit (CAP), Navigational Waters, & 401 Water Quality Certification.

If a Clean Water Act permit is applicable, then the CONSULTANT shall prepare the permit application in the format specified by the Charleston District Corps of Engineers with all required supporting information.

The CONSULTANT will coordinate with the CITY to determine what type of USACE permit will be required. In the completed application, the CONSULTANT shall document all proposed impacts to Waters of the U.S. At its discretion, the City will execute the Joint State and Federal Application form as the applicant, and will designate the CONSULTANT as the City's agent in the processing of the permit application for the subject project and in furnishing supplemental information in support of the application. If a CWA Section 404/401 permit is required, this shall be in addition to the contracted scope of work.

The CONSULTANT shall submit drawings depicting the proposed jurisdictional impacts to waters of the U.S. on the subject project. The CONSULTANT shall include the surveyed or measured boundaries of jurisdictional waters to establish the proposed jurisdictional impacts.

The CONSULTANT will work with federal, state and local representatives throughout the course of the permit application process, and coordinate the submission of any additional information as requested by the respective agencies in order to facilitate permit acquisition. If requested, the CONSULTANT will provide a tour of the project corridor for representatives of the regulatory and commenting agencies.

The CONSULTANT shall also furnish supplemental information in support of the USACE Individual Permit authorization request (e.g., NEPA, Threatened & Endangered Species Report, clarification, additional information or responses to comments, etc.). The CONSULTANT will also prepare the appropriate responses to agency or public comments received as a result of the public notice or from the dissemination of an Individual Permit authorization request, as directed by the CITY. The CITY is to approve both the permit application and any of the supplemental information provided in support of the application (e.g., clarification, additional information or responses to comments, etc.), including any communication (e.g., e-mail, facsimile, phone calls, meetings, etc.), before it

is submitted to the Charleston District Corps of Engineers (or other review and regulatory agencies) on our behalf.

Deliverables:

Permit Determination Form

Individual Permit Pre-Construction Notification Package

One (1) Electronic PDF copy of the Individual Permit Notification Package

Responses to public and/or agency comments

3. SCDHEC-OCRM General Permit* – Authorization under SCDHEC-OCRM's General Permit GP-84-264 will be required for borings that occur within the Critical Area. The CONSULTANT will prepare SCDHEC-OCRM General Permit Application (Form 3903), including drawings depicting the general location and activity.

   The CONSULTANT will mail notifications to adjacent property owners within 100 feet of the proposed boring locations, as well as Charleston County.

   The CONSULTANT will prepare a public notice to be published over one day in The Charleston Post and Courier newspaper. The CONSULTANT will include a notarized affidavit from the newspaper with notice attached in the permit application.

   Prior to commencement of work, the CONSULTANT will submit a Request for Construction Placard to SCDHEC-OCRM.

   Deliverable:
   - SCDHEC-OCRM General Permit
   - SCDHEC-OCRM Construction Placard

4.4. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

1. Project website hosted on the CITY's website
2. Press release
3. One (1) public information meeting
4. One (1) stakeholder meeting
5. Two (2) community meetings
6. One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.

Assumptions:
- Consultant will provide content for the website

Deliverables:

- Content for website;
- 2 displays of project's conceptual design for public information meeting, stakeholder meeting, community meetings, and marina operators meeting.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition;
- SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004 and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception. Any changes that involve SCDOT maintained roadways or facilities will need SCDOT review and approval. Any design exceptions on SCDOT maintained roadways will need SCDOT review and approval*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road (Stantec)
- Intersection safety and pedestrian improvements at Bee St/Lockwood/US 17 offramp (Stantec)
- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway (Stantec)
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection (Stantec)
- Alternatives for a bridge across the Ashley River and connections to existing pathways or intersections (HDR)

These conceptual plans will consist primarily of roll plots; typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, cross sections, Existing Right of way, Proposed Right of way. Additional items that maybe needed in the preliminary plans will be included such that enough detail is provided to allow for verification of controlling criteria.*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

5.2.6. Complete design exception documentation, if needed. SCDOT approval will be needed for areas affecting SCDOT roadways.*

Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.
- One (1) Complete Design Exception with supporting documentation (if necessary). SCDOT approval will be needed for areas affecting SCDOT roadways.

6. STRUCTURAL DESIGN

The CONSULTANT will develop conceptual (Type, Size, & Location (TSL)) bridge plans consistent with SCDOT standards including all items stipulated in Section 3.2.3 of the SCDOT Bridge Design Manual. The TSL plans will be prepared in sufficient detail and appropriate format to clearly illustrate the bridge's location, all significant design features, dimensions, and clearances. The TSL plans will include a plan and profile, elevations (showing movable spans, as applicable, in both the open and closed positions), pathway and bridge typical sections, types of superstructure and substructure, and pertinent plan and profile sheets. The

TSL plans are not intended to become a part of the information provided with the RFP, but will be submitted in an Alternatives Report for selection of preferred alternative.

Upon selection of the preferred alternative, the CONSULTANT – in coordination with the CITY – will finalize the schematic plans, specifications, and estimate for that alternative, defining the bridge design for bidding purposes in the DB procurement. In parallel, conceptual aesthetics will be defined for select bridge component details, including production of 3D renderings for visualization at both overview scale and select detail scale.

The CONSULTANT will conform to the following SCDOT and FHWA design standards in preparation of the bridge plans. During plan development, the CONSULTANT will use the most recent standards in effect at the time of the DFR.

- SCDOT Bridge Design Memoranda (to RPG Structural Engineers and Design Consultants, issued after April, 2006);
- SCDOT Bridge Design Manual, as updated per Bridge Design Memorandum DM0220;
- AASHTO LRFD Bridge Design Specifications, latest edition, including interims;
- AASHTO LRFD Movable Highway Bridge Design Specifications, latest edition, including interims
- AASHTO LRFD Guide Specifications for the Design of Pedestrian Bridges, latest edition
- SCDOT Bridge Standard Drawings and Details, latest versions;
- SCDOT Road Standard Drawings and Details, latest versions;
- SCDOT Geotechnical Design Manual, 2019, Version 2.0, with latest interims;
- SCDOT Standard Specifications for Highway Construction;
- ANSI/AASHTO/AWS D1.5 Bridge Welding Code, the latest edition, with interim revisions
- SCDOT Standard Special Provisions and Supplemental Specifications.
- South Carolina Building Code
- NFPA 70 National Electrical Code; and
- OSHA 29 CFR

The following items will be developed for the bridge design:

6.1. Preliminary Bridge Design

6.1.1. Develop preliminary design criteria for bridge structures and operations that will be necessary for the development of the alternatives. Pedestrian accommodations and aesthetic considerations to be included.*

6.1.2. Representatives from the CITY and the CONSULTANT involved in bridge design will perform a field review of the project. All information gathered during the field investigations will be evaluated and plans revised accordingly.*

6.1.3. Identify and analyze* up to three (3) main span alternatives. Likely candidates are:

6.1.3.1. High Level Fixed Spans

6.1.3.2. Vertical Lift Bridge

6.1.3.3. Second Movable Bridge Option (TBD)

6.1.3.4. Identify and analyze two (2) marsh approach span alternatives

6.1.4. Develop Preliminary Alternatives Report*

6.1.4.1. Including (but not limited to)

- Conceptual TSL bridge plans* for the bridge alternatives.
- Preliminary estimated life-cycle cost* for each alternative.
- Selection Criteria Matrix, with Discussion of Pros and Cons of each alternative.

6.1.4.2. Respond to comments from the CITY on the Alternatives Report.

6.1.4.3. Meet with the CITY to discuss alternatives.

6.1.4.4. Finalize Alternatives Report* with recommendation for the preferred option based on the CITY's input, and submit.

6.2. Conceptual Aesthetics*

6.2.1. The CONSULTANT will research and develop conceptual level aesthetic enhancements for the preferred alternative for coordination with the CITY's Board of Architecture Review (BAR). Aesthetic treatments to be considered include bridge lighting, handrails, and architectural features at movable bridge span.

6.2.2. The CONSULTANT will develop graphics and renderings for conceptual aesthetics. No more than three (3) options will be prepared for each aesthetic treatment.

6.2.3. Following the meeting with the CITY's BAR, a final aesthetics package will be prepared for inclusion in the Design Build RFP.

Deliverables:

- One (1) electronic PDF file of Preliminary Alternatives Report
- One (1) electronic PDF file of Final Alternatives Report
- One (1) electronic PDF file of the Aesthetics Package

7. HYDROLOGY AND HYDRAULIC DESIGN

All hydraulic design and documents will be in compliance with the following design criteria:

- SCDOT's Requirements for Hydraulic Design Studies, latest edition;
- SCDOT Standard Drawings;
- SCDOT Supplemental Specifications;
- SCDOT Engineering Directive Memorandums;
- SCDOT Instructional Bulletins;
- SCDOT Standard Specifications for Highway Construction;
- SCDOT Supplemental Technical Specifications;
- SCDOT Preconstruction Advisory Memorandums;
- City of Charleston Stormwater Design Manual, latest edition;

- FEMA Regulations, 44CFR Chapter 1;
- The State Stormwater and Sediment and Erosion Control Regulations administered by DHEC, 26 S.C. Code Ann. Regs. 72-405 (Supp. 1995) et seq.;
- South Carolina State Water Law;
- AASHTO "Highway Drainage Guidelines" dated 2007;
- AASHTO "Drainage Manual", 2014 first edition;
- SCDOT "Stormwater Quality Design Manual" latest edition;
- SCDOT Hydraulic Design Bulletins;
- SCDHEC NPDES MS4 permit #SCS040001; and
- SCDHEC NPDES Construction Permit #SCR160000.

7.1. Roadway Drainage*

7.1.1. Perform a hydrological study of the watershed(s) using existing topographic maps, information gathered from the field investigation(s) and available information from federal, state and local agencies.

7.1.2. Perform hydraulic analyses for pre- and post-developed conditions on the crossline drainage structures based on the appropriate route designation. Check the crossline drainage structures for roadway overtopping using the 100-yr storm event. Tailwater conditions must be taken into consideration.

7.1.3. Coordinate potential impacts from the proposed project on pre-development peak flow rates and total runoff volume. Prepare conceptual design alternatives for reducing post-development flow rates and total runoff volume to pre-development levels in accordance with CITY standards. This task item is specifically for non-bridge areas.

7.1.4. The CONSULTANT will development a preliminary design assessment of the bridge surface drainage. Alternatives for collecting bridge surface runoff will be coordinated with the preliminary bridge design. The CONSULTANT will evaluate the need for best management practices to collect and provide water quality treatment to the bridge runoff. Potential areas for best management practices will be identified and documented as part of the environmental studies and preliminary design.

7.1.5. Identify all floodways and flood hazard areas and identify significant drainage features that encroach upon these areas.

7.2. Bridge Hydraulics Modeling

7.2.1. Perform hydrologic and hydraulic riverine and tidal analyses for the bridge alternatives crossing Ashley River in accordance with SCDOT's design criteria (utilizing two-dimensional surge and wave modeling software) to determine the waterway opening requirements and analyze the structure(s) for the 1% AEP (100-year) and 0.2% AEP (500- year) events.*

7.2.2. The CONSULTANT shall develop an ADCIRC based model. Bathymetric surveys 2500' upstream and downstream of the existing alignment shall be obtained for use in the model. *

7.2.3. The CONSULTANT will establish the 100-year maximum wave crest elevations across the bridge employing methodologies consistent with AASHTO's "Guide Specifications for Bridges Vulnerable to Coastal Storms" to determine the required clearances and wave forces for the bridge alternatives. Calculate the wave forces based

on the bridge ends being set at 1% AEP surge plus wave height plus freeboard as discussed in the Hydraulic Requirements.*

7.2.4. Hydraulic modeling will examine the proposed alternatives. Bridge geometry will be determined for each alternative. The modeling will be conducted in conformance with the guidelines detailed in SCDOT's "Requirements for Hydraulic Design Studies" consistent with a Level 3 Analysis to determine the minimum low steel and in conformance with the guidelines detailed in AASHTO's "Guide Specifications for Bridges Vulnerable to Coastal Storms". As already stated, bridge geometry must be determined but ultimately the only required data is the low steel and the determination of the pier location constraints. Consultant to coordinate with Coast Guard to determine minimum elevation of low chord over the shipping channel.*

7.2.5. Development of Bridge Hydraulics Report following SCDOT Guidelines.

Deliverables:

- One (1) PDF copy of the Conceptual Roadway Drainage Design Report
- One (1) PDF copy of the Hydraulic Design and Risk Assessment Report
- One (1) PDF copy of the Bridge Hydraulics Report

Assumptions:

- No FEMA Report will be required.

8. GEOTECHNICAL SERVICES AND PAVEMENT DESIGN

The scope of services outlined below for field exploration, laboratory testing, and limited engineering analysis/reporting will be performed for the project. Pavement design and investigation will be performed by the CONSULTANT. All associated field investigations and pavement borings for new pavement design will be performed by CONSULTANT. The following design standards will apply.

- 2007 SCDOT Standard Specifications for Highway Construction.
- SCDOT Standard Supplemental Specifications and Special Provisions.
- 2019 SCDOT Geotechnical Design Manual (GDM), 2019, Version 2.0.
- SCDOT Bridge Design Memorandum to RPG Structural Engineers and Design CONSULTANTs, issued after April, 2006
- AASHTO Standard Specifications for Highway Bridges, 17th Edition
- AASHTO LRFD Bridge Design Specifications, 7th Edition, with interims.
- LFRD Guide for Specifications for Pedestrian Bridges
- SCDOT Pavement Design Guide

Assumptions

- The CONSULTANT developed a preliminary geotechnical boring location plan to facilitate collaboration with the CITY regarding frequency and location of the test locations associated with the subsurface investigation scope herein. The preliminary geotechnical boring location plan as modified based upon collaboration with the CITY is the primary basis for subsurface investigation scope herein;
- The subsurface investigation associated with the bridge will be performed

during the day. The bridge end bent borings and the bridge approach/roadway embankment boring will be performed using low ground pressure/floating (marsh buggy) equipment. The interior bent boring will be performed from the water using a barge.

- The pavement borings and geophysical investigation will be performed with traffic control and adhere to the hourly lane closure restrictions for US 17.
- Property permissions to perform the borings outside of CITY and SCDOT right of way will be obtained by the CITY.
- CONSULTANT will develop and submit programmatic NEPA CE for soil borings.
- CONSULTANT will provide boring locations and details regarding access to the borings needed for development of the NEPA CE for soil borings.

8.1. Geotechnical Field Exploration*

8.1.1. CONSULTANT shall submit a detailed subsurface investigation plan prior to the commencement of field operations. The plan shall consist of proposed boring locations within the project corridor as well as the following items:

- Description of the soil stratification anticipated;
- Description of the proposed testing types;
- Depth of tests
- Location of tests.

8.1.2. Test locations shall be located in the field using GPS survey equipment. Once field work has been completed, all test locations shall be surveyed for State Plane coordinates.

8.1.3. Borings and Soundings: Soil Test Borings (STB), Seismic Piezocone Penetration Test soundings (SCPTu), and a MASW 2D seismic survey will be performed in general accordance with Chapters 4 and 5 of the GDM. A total of ten (10) STBs (2 marine and 8 marsh based) and four (4) SCTPu soundings will be performed as follows:

8.1.4. Marine Based borings

- Two (2) STBs to 200 feet for bridge foundations (assume @ 500' spacing for a 1,500-foot long bridge)
- Assume thirty (30) feet of water from barge to ground surface within river.

8.1.5. Marsh/Land Based borings

- Two (2) STBs to 150 feet for bridge foundations (one near each abutment)
- Two (2) STBs to 100 feet for bridge approach embankments at 100-ft from each bridge end
- Four (4) STBs to 60 feet for embankment design or potential retaining walls.
- Four (4) SCPTu soundings to 125 feet will be performed to explore the approach embankment areas of the proposed bridge (no more than 5 feet from the location of each bridge end bent and approach embankment STB).

8.1.6. All STBs and soundings shall be performed to the depths indicated or refusal below the ground surface/mudline, whichever applies.

8.1.7. All STBs shall be advanced using rotary wash drilling techniques and include Standard Penetration Tests (SPT). SPTs shall be performed continuously in the upper 10 feet

using a 24-inch spoon and on 5-foot centers thereafter to the boring termination or refusal depth. Refusal is defined as drilling tool and SPT refusal (N-value of 50 blows per 1 inch).

8.1.8. Geophysical testing using a 2D Multi-Channel Analysis of Surface Waves (MASW) to a minimum depth of 100 feet aiming to produce an approximate 200-foot seismic survey profile adjacent to one end of the proposed bridge will be performed.

8.1.9. If soft, fine-grained cohesive soils are encountered during the subsurface investigation, five (5) auger probes to 80 feet with four (4) undisturbed samples from each probe (total of 20),will be obtained

8.1.10. Over-water access (barges) will be required to maneuver the drilling rig and advance test borings for bridge interior bents. A mobilization and per-day rate for the barge subcontractor will apply.

8.1.11. On land STBs and SCPT soundings will be performed from a marsh buggy mounted rig.

8.1.12. Pavement coring of existing pavement with bulk sample collection from existing soil will be performed for pavement design purposes. Core thickness shall be reported. Assume three (3) cores with 5.0' soil sampling through asphalt pavement and patching the resulting core holes, and two (2) bulk samples.

8.1.13. It is the responsibility of the CONSULTANT to obtain necessary permits to access each test hole location. Prior to commencing field work, the CONSULTANT shall clear all utilities located at the project site. Locating and protecting utilities before and during field work is the responsibility of the CONSULTANT.

8.1.14. Groundwater table measurements will be taken immediately following and 24-hour after boring completion.

8.1.15. Boreholes will be backfilled with drill cuttings or clean soil.

8.1.16. CONSULTANT shall perform and submit the results of SPT hammer energy measurements for any drill rig used on this project.

8.2. Field Operations Items*

The following items are deemed necessary to complete the field work as proposed:

8.2.1. Drill Crew & Equipment Mobilization to site

8.2.2. Marsh Buggy Drilling Equipment

8.2.3. Marsh mats/plywood and equipment to locate/relocate marsh buggy for drilling access

8.2.4. Barge/equipment mobilization

8.2.5. Barge placement and drill platform setup

8.2.6. Push-boat rental with captain and crew & drill platform and support equipment rental

8.2.7. Barge days –

8.2.8. Difficult boring location access (20 hours STB, 20 hours SCPT)

8.2.9. Rotary Wash Drilling - 1,140 LF (400 LF from barge + 740 LF from land)

8.2.10. Auger Borings – 400 LF

8.2.11. Undisturbed (Shelby Tube) Soil Sampling – 20 Samples

8.2.12. Setting steel drilling casing – On land and over Water (400 LF for marine borings + 740 LF for land based borings)

8.2.13. Geophysical Testing using 2D MASW – 1 test

8.2.14. Per Diem days

8.2.15. Lodging days

8.2.16. Mileage

8.3. Laboratory Testing*

All soil samples will be sealed in appropriate containers and transported to the CONSULTANT's AASHTO accredited laboratory for index and strength tests. Laboratory investigation is to include, as estimation, the following:

8.3.1. Ninety (90) Natural Moisture Content tests;

8.3.2. Ninety (90) Moisture-Plasticity Relationship Determination (Atterberg Limits);

8.3.3. Ninety (90) Grain Size Distribution with wash No.200;

8.3.4. Five (5) Organic content tests;

8.3.5. Six (6) Corrosion Series (including pH, Sulfate, Chloride & Resistivity) for the proposed bridge;

8.3.6. Twenty (20) UD preparations;

8.3.7. Four (4) Consolidation tests

8.3.8. Eight (8) Unconsolidated Undrained Triaxial Shear Strength tests

8.3.9. Ten (10) Consolidated Undrained Triaxial Shear Strength tests with pore water pressure measurements

8.3.10. Classification tests consisting of Grain Size Distribution with Wash No 200 sieve, Atterberg Limits, and Natural Moisture Content shall be conducted on each undisturbed sample and each bulk sample. Consolidated Undrained Triaxial testing with pore pressure measurements shall be performed on samples remolded to 95% of the Standard Proctor maximum dry density for each bulk sample. These tests have been accounted for in the quantities above.

8.4. Preliminary Geotechnical Baseline Report*

The Preliminary Geotechnical Baseline Report will be prepared by the **CONSULTANT** in general accordance with the procedures outlined in the GDM.

8.5. Preliminary Geotechnical Seismic Characterization*

The **CONSULTANT** will perform limited geotechnical analyses required to assess the static and seismic subsurface conditions relative to the existing roadway embankment stability. The preliminary geotechnical calculations will consist of settlement calculations, liquefaction potential calculations, and slope stability analyses.

The **CONSULTANT** will submit the shear wave velocity profile generated from the MASW and SCPT testing to the SCDOT for development of the horizontal Acceleration Design Response Spectrum (ADRS) curves. Information from the ADRS curves will be used as input into the liquefaction calculations and the seismic slope stability analyses.

The **CONSULTANT** will also perform limited analysis of seismic hazard mitigation options.

8.6. Site-Specific Seismic Response Analysis (SSRA)*

The **CONSULTANT** will perform a site-specific seismic response analysis in coordination with the CITY and only if the criteria in GDM Section 12.9 that require such a study are met.

Deliverables

- Geotechnical Base Line Report - One (1) electronic pdf copy of the Geotechnical Base Line Report for the entire project (roadway and bridge) will be submitted. All activities in preparation of the geotechnical base line report shall be conducted in general accordance with the procedures outlined in the GDM and respective bridge design memo. The report will also include the results of the preliminary geotechnical seismic characterization. The report will be prepared in accordance with GDM and applicable Bridge Design Memo guidelines.
- Site-Specific Response Analysis Report – Subject to the CITY's approval for the performance of the study, one (1) electronic pdf of the Site-Specific Response Analysis Report will be submitted.

9. UTILITY COORDINATION

General Responsibilities

The CONSULTANT shall have the responsibility of coordinating the Project development with all utilities that may be affected. All utility relocations shall be handled in accordance with the SCDOT's "A Policy for Accommodating Utilities on Highway Rights of Way" and the Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A & B.

These services shall be performed by individuals skilled and experienced in utility coordination services.

The CONSULTANT shall work with designers of the Project to avoid conflicts with utilities and minimize impacts where conflicts cannot be avoided. This may include, but is not limited to, utilizing all available utility data, whether obtained from SUE services, as-built plans, or provided by the SCDOT or some other source. The CONSULTANT will be expected to

determine all utility conflict points, including all work to properly analyze each conflict point, and make recommendations for resolution of the conflict.

The utility company shall not begin their relocation work until authorized in writing by the SCDOT.

The CONSULTANT shall prepare and maintain a Utility Conflict Matrix (UCM) in order to track each utility within the project limits during the life of the Project.

Scope of Services

Project tasks below that are identified with an asterisk (*) are tasks which are expected to be assigned man-hours. All estimated direct costs for specific project tasks will require supporting documentation.

9.1. Early Utility Coordination

Project Preliminary Review (*): The CONSULTANT shall coordinate with the SCDOT Program Manager to collect and review available project plans and the proposed scope of construction.

Utility Introduction Letter (*): (Required) The CONSULTANT shall develop a Utility Introduction Letter for each utility company. This letter shall be populated by the CONSULTANT with the utility company's information (to include the company's contact person, mailing address, telephone number and appropriate email address) and electronically sent to the SCDOT State Utility Engineer for signature and mailing.

Utility Record Collection and Review (*): The CONSULTANT shall initiate early coordination with all utility companies that are located within the Project limits. Coordination shall include, but shall not be limited to, contacting each utility company to advise the company of the proposed Project, obtaining copies of as-built plans for the existing utility facilities (if available), perform a review of utility as-built plans and determine the utility company's requirements for the relocation of their facilities.

Site Visit (*): The CONSULTANT shall perform a site visit for a visual inventory of existing utilities within the proposed project limits. If it is determined by the SCDOT that an in-depth SUE mapping investigation will not be performed, the CONSULTANT is encouraged to use the "One Call" design ticket service provided by SC811 prior to their Site Visit.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a preliminary review meeting with the utility companies (if deemed necessary) for the completion of Early Utility Coordination.

SUE Mapping Recommendation (*): The CONSULTANT shall develop a SUE recommendation for the project dependent on the information gathered and the projected level of Utility Coordination expected for the Project as directed by the SCDOT Program Manager.

Utility Clearance Separation Values (*): (Project Specific Task) The CONSULTANT shall determine the minimum vertical and horizontal separation values required by each utility.

These values will provide the SCDOT Program Manager vertical and horizontal clearance design criteria during preliminary project development.

Early Utility Coordination Email (*): The CONSULTANT shall prepare and send the Early Utility Coordination Email to the SCDOT Program Manager, SCDOT Utility Office and the District Utility Coordinator. Email to be used as an informal summary of the Early Utility Coordination tasks.

Deliverables:

The CONSULTANT shall prepare and submit to the Department an Early Utility Coordination Email within 30 days after receiving the Notice to Proceed (NTP) which includes:

- List of all utility companies and contact information within the project limits.
- Utility Introduction Letter (Required).
- Early assessment of each Utility Company's facilities located within project limits.
- Utility Companies Coordination Meeting Notes.
- SUE Mapping Recommendation.
- Utility Clearance Separation Values.

9.2. Preliminary Utility Coordination

Initial Plan Distribution (*): The CONSULTANT shall provide the utility company with preliminary design plans as soon as the plans have reached a level of completeness adequate to allow the company to begin understanding the Project impacts.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a review meeting with the utility companies to assess and explain the impact of the Project to the company. The SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be included in this meeting.

Collection and Review of Prior Right Documentation (*): The CONSULTANT shall request the prior rights documents for each utility company's facilities. If there is a dispute over prior rights with a utility, the CONSULTANT shall be responsible for resolving the dispute and making a recommendation to the SCDOT. The CONSULTANT shall meet with the SCDOT's Program Manager to present the prior rights information gathered. This information must be sufficient for the SCDOT's Program Manager to certify the extent of the utility company's prior rights. The SCDOT shall have final approval authority as to the determination of whether the utility company has prior rights.

Preliminary Utility Report (*): The CONSULTANT shall prepare the Preliminary Utility Report.

Progress Review Meeting (*): The CONSULTANT shall conduct a progress review meeting with the SCDOT Program Manager.

Deliverables:

- The CONSULTANT shall prepare and submit to the Department a Preliminary Utility Report which includes:

- List of all utility companies and contact information within the project limits.
- Utility Company Coordination Meeting Notes.
- Preliminary recommendation as to the extent of each utility company's prior rights.
- Preliminary assessment of the impact to each utility company, including costs (for those utilities with prior rights), as can best be determined at the time.
- Information on existing SCDOT ITS infrastructure. Utility companies will be informed that intersections at the interchanges, no overhead lines will be allowed due to the possibility of future signals.
- Recommendations for In-Contract Utility Relocations.
- Recommendations for early Utility Relocations prior to the start of construction.
- Preliminary Utility Report to be delivered in an electronic format (pdf).

9.3. Constructability Review Meeting *

The CONSULTANT shall plan and conduct a Constructability Review Meeting with all utility companies in order to discuss any conflicts with proposed utility relocations vs. roadway construction work and any conflicts between various utilities. SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be invited to the meeting.

10. SUBSURFACE UTILITY ENGINEERING (SUE)

10.1. SUE Work*

The CONSULTANT shall perform work in two phases. The first phase consists of designating services (Quality Level B, C and D; no level A is anticipated). For the purpose of this Agreement, "designate" shall be defined as indicating, by marking, the presence and approximate horizontal position of the subsurface utilities by the use of geophysical prospecting techniques. The second phase consists of test hole services (Quality Level A). For the purpose of this Agreement, "locate" means to obtain the accurate horizontal and vertical position of the subsurface utilities by excavating a test hole. The CONSULTANT shall provide these services as an aide in the design of right-of-way and construction plans for the project. Before SUE work commences the plan shall to be coordinated with the CITY project manager. Consultant shall employ proper quality control measures to ensure accuracy of the SUE deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

Unless specifically stated otherwise, the CONSULTANT shall adhere to the ASCE Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02).

10.2. Designating Services*

- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'C' information for approximately 7,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the completion of

Quality Level 'B' information for approximately 26,000 LF of underground utilities.*

- Provide all equipment, personnel and supplies necessary for the accurate recording of information for approximately 60 aerial pole utilities.*
- Conduct appropriate records and as-built plans research and investigate site conditions.*
- Obtain all necessary permits from city, county, state or any other municipal jurisdictions to allow CONSULTANT personnel to work within the existing streets, roads and rights-of-way.*
- Designate the approximate horizontal position of existing utilities by paint markings in accordance with the APWA Uniform Color Code scheme along the utility and at all bends in the line in order to establish the trend of the line. All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.*
- All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.
- Service lines are excluded from this scope with the following exception:
    - Gas service lines 1" or greater to be designated up to the project limits or gas meter, whichever is encountered first.
    - Underground Telecommunication service lines, Power service lines and Water service lines 2" or greater servicing multi-family dwellings, industrial facilities, commercial buildings or health care facilities in which disturbance to the "service line" would have a negative financial and/or safety effect.
- Survey designating marks, which shall be referenced to project control provided by the surveyor of record.*
- Draft survey information using SCDOT CADD guidelines for Subsurface Utility Engineering consultants (latest version).*
- Final review and seal of all appropriate work by a professional engineer and/or land surveyor licensed in South Carolina in responsible charge of the project.*
- When requested, provide reasonable assistance to the CONSULTANT in obtaining plans showing the project limits, alignment, centerline, rights-of-way limits (existing and proposed), project controls and other data for selected projects.
- Provide notification to CITY and key SCDOT District personnel concerning the upcoming SUE services to be provided by the CONSULTANT.

Deliverables:

- Provide in current SCDOT CADD standard of designation (SUE Quality Level C, B & Aerial) data e-files tied to project survey control for Utility Coordination Sheets.*

11. RIGHT OF WAY

11.1. Right of Way Acquisition Services*

11.1.1. The CONSULTANT shall perform all right-of-way acquisition services in accordance with the following tasks for up to ten (10) parcels requiring acquisition

or permissions and relocation if need:

11.1.2. Perform all title searches for properties which must be acquired to construct the project and provide to the DEPARTMENT a Preliminary and Final Certificate of Title signed by a licensed South Carolina attorney (as required by the SCDOT's Right of Way Manual). Titles certificates shall advise all names of any parties that should be included for payments, and if the investigation reveals that condemnation is necessary to clear title, it shall provide names of all parties that should be served with condemnation, provide recording information for those parties who have an interest in the property and advise whether or not advertisement is required. Preliminary title abstracts must be provided prior to the property being appraised.

11.1.3. All offers of just compensation will be based on a written approved appraisal unless prior approval is given to the Contractor by CITY. If CITY decides to utilize cost estimate offers, CITY will prepare the cost estimates and provide Contractor with the approved right of way cost estimate. CITY may allow offers to be made based on the cost estimates on tracts estimated to be $20,000 or less and determined by CITY to be a non-complicated. In the event the cost estimate offer is rejected by the property owner, a written appraisal shall be required.

CITY will be responsible for reviewing and approving all appraisals and setting just compensation. Appraisals will be reviewed and released within 15 business days of receipt. If appraisal review cannot be completed within 15 days because of deficiencies of the appraisal, the Right of Way Consultant will be notified immediately of the appraisal status. CITY will provide appraisal reviews complying with the technical review guidelines of SCDOT Right of Way Appraisal Manual. The review appraiser will be an CITY staff appraiser or a review appraiser from SCDOT's approved list. CITY will be responsible for review appraiser costs.

11.1.4. Acquire in accordance with all state laws and regulations, both Federal and State, and in the name of the CITY, the right of way necessary to construct the project. Title shall be in fee simple absolute and have a recordable warranty deed unless otherwise authorized by the CITY. The title shall be filed, within seven (7) days of payment to the landowner, in the ROD office in Richland County and the original file stamped instrument will be returned to the CITY. The CONSULTANT is responsible for all cost associated with recording of the deeds.The Consultant shall submit Deed for property owner payment within 30 days of the execution date on the Deed. If this is not possible, the Consultant must submit in writing to SCDOT the reasoning and a new proposed resolve date.

11.1.5. Prepare exhibits in accordance with SCDOT's exhibit preparation guide.

11.1.6. In the event of condemnation the necessary documents as required by the Eminent Domain Procedure Act Sections 28-2-10 et. Seg., South Carolina Code of Laws (1976) as amended will be prepared and submitted electronically to the County's attorney as direct, for the attorney to file the case with the Clerk of Court. The procedure for Condemnation shall be by way of trial after rejection of the amount tendered as provided in Section 28-2-240.

11.1.7. Retain all records dealing with property acquisition and all other costs associated with this project for three (3) years after the final acquisition for the project.

11.1.8. CONSULTANT is responsible for establishing and maintaining Quality Control and Quality Assurance procedures for the entire right of way acquisition process.The Consultant Shall return all corrections to SCDOT within 15 business days from date of returned to the Consultant.

11.2. Evaluation of Marina Operations*

11.2.1. Determine recommended minimum fairway width based on industry guidance.

11.2.2. Review proposed bridge alignment and available survey data and tidal data.

11.2.3. Review dredging records for marina, if available.

11.2.4. Site visit to marina, discussion with marina staff regarding facilities and standard operations.

11.2.5. Develop conceptual alternatives with supporting figures

- Modify bridge alignment
- Modify marina layout
- Modify marina operations
- ROW purchase

11.2.6. Develop summary memorandum.

12. DEVELOPMENT OF THE RFQ/RFP

12.1. Development of the RFQ*

CONSULTANT, with support from the CITY, shall develop the RFQ to follow SCDOT Design-Build RFQ format to include the following sections:

- Introduction
- Project Information and Procurement Overview
- Contents of Statement of Qualifications (SOQ)
- Evaluation Process
- SOQ Submittal Requirements
- Procurement Phase 2
- Conflict of Interest
- Miscellaneous

12.1.1. Coordinate with the CITY to determine minimum qualifications to be met for design/build teams to be considered.

12.1.2. Develop project Risk Matrix and categorize project risks as High, Moderate,

and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies.

12.1.3. Organize and provide answers to RFQ questions.

12.1.4. Development of one (1) RFQ addendum.

12.1.5. Support CITY in review of SOQ's and determination of short-listed design-build teams.

12.2. Development of the RFP for Industry Reviw, Final RFP and Addenda*

CONSULTANT, with support from the CITY, shall develop the RFP for Industry Review, Final RFP and addenda to follow SCDOT Design-Build RFP format, including the following sections:

12.2.1 RFP Instructions Section:

- Purpose of RFP
- Project Overview
- General Instructions
- Proposal Development and Submittal
- Evaluation of Proposals
- Selection of Contractor
- General Information
- Milestone Schedule
- Cost Proposal Bid Form
- Non-Collusion Certification
- Equal Employment Opportunity Certification
- Stipend Acknowledgement Form
- Stipend Agreement
- Bid Bond Form

12.2.2 Attachment A – Agreement

12.2.2.1 Exhibit 1 – Cost Proposal Bid Form
12.2.2.2 Exhibit 2 – Schedule of Values
12.2.2.3 Exhibit 3 – Scope of Work
12.2.2.4 Exhibit 4 – Design Criteria

- Roadway
- Structure
- Electrical
- Architectural
- Mechanical
- Hydrology
- Geotechnical
- Traffic
- Environmental

- Project Design Deliverables

12.2.1.2 Exhibit 5 – Special Provisions

12.2.3 Attachment B – Supplemental Project Design Criteria

12.2.4 Project Information Package

12.2.5 Develop Final RFP

12.2.6 Develop five (5) addenda to Final RFP

13. PROCUREMENT

CONSULTANT shall lead the following tasks with support from the CITY during the procurement of the design-build project:

13.1. Compile, coordinate with the CITY, and respond to RFP for Industry Review and Final RFP questions and clarifications.*

13.2. Provide technical review and recommendations during reviews of Alternative Technical Concept (ATCs)*. Review by SCDOT for roadways and/or facilities maintained by SCDOT.

13.3. Provide review of Technical Proposal roadway, bridge, and maintenance of traffic plans.* Reviews by SCDOT for portions of roadways and/or facilities maintained by SCDOT.

13.4. Provide review and analysis of bid packages to confirm whether costs – item level and overall – are reasonable.*

13.5. Support CITY in evaluation of proposals and selection of design-build contractor.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall

indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

14.1. Project Organization and Management Responsibilities

A. Facilitate Design Review Process*
   i. Create and Manage Submittal and Release for Construction (RFC) folders in ProjectWise. The City does not have ProjectWise; we understand that HDR will provide the City with access.
   ii. Create and Manage Bluebeam session for each submittal
   iii. Manage schedule of design reviews according to the Contract
   iv. Facilitate exchange of comments and responses

B. Manage design reviews including review of comments and communication and coordination with design review team, design-build team, and CITY.*
C. Review Contractor's Contract Deliverables Matrix and Design Review Submittal Schedule*
D. Review and verify Contractor's Quality Control Plan for design, drawings, and specifications *
E. Prepare and submit thirty six (36) Invoices to the CITY. *
F. Miscellaneous Submittals *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) non-conformance report (NCRs)
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

G. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

H. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with the CITY, FHWA, Contractor, and others (assume the *PM/ Design Manager* will attend)
ii. Attend twenty (20) two-hour Design Coordination Meetings (assume PM/Design Manager will attend)
iii. Attend two (2) four-hour Regulatory Agency Meetings (assume PM/Design Manager and one (1) environmental staff will attend)
iv. Attend two (2) Utility Coordination Meetings (assume the PM/Design Manager will attend)

14.2. Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Environmental reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

C. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on forty (40) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers

iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.3. Structural Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Approach Structure Plans
ii. Final Approach Structure Plans
iii. Preliminary Movable Span (Structural, Mechanical, and Electrical)
iv. Final Movable Span (Structural, Mechanical, and Electrical)

B. Shop Plan Reviews *

i. Two (2) packages of Prestressed Concrete Girder Shop Plans and Design Calculations
ii. Two (2) packages of Steel Superstructure (Girders, Floorbeams, Stringers) Shop Drawings, Erection Plan, and Design Calculations
iii. Four (4) packages of main (bascule or lift) pier shop drawings (bar lists, assembly, precasting (if applicable)
iv. Two (2) packages of Foundations Construction Drawings and Design Calculations
v. Two (2) packages of Mechanical Systems Shop Drawings
vi. Two (2) packages of Electrical Systems Shop Drawings
vii. Two (2) packages of other bridge component Shop Plans: SIP Formwork, Bearings, Steel Diaphragms, Expansion Joints, Armor Plates, etc.
viii. Four (4) packages of MSE Wall Shop Plans and Design Calculations.

C. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Review and provide recommendations on twenty (20) Requests for Information
ii. Review and provide recommendations on three (3) NCRs
iii. Review and provide recommendations on three (3) Issue Papers
iv. Review and provide recommendations on two (2) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that eight (8) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.4. Movable Span Structural, Mechanical, Electrical, & Facilities Design Review Responsibilities

A. Design plan reviews will occur as noted below:*

i. Preliminary Movable Span (Structural, Mechanical, Electrical, and Facilities)
ii. Final Movable Span (Structural, Mechanical, Electrical, and Facilities)

B. Shop Plan Reviews *

i. Structural
a. Two (2) packages of Movable Span Foundations construction drawings and design calculations
b. Four (4) packages of Movable Span pier shop drawings and design calculations (bar lists, assembly, precasting if applicable)
c. Seven (7) packages of Structural Steel (Towers, Girders, Floorbeams, Stringers, Armored Joints, Live Load Bearings, Machinery Supports) shop drawings and design calculations

d. Five (5) packages of other movable bridge component Shop Plans and design calculations: Counterweights, FRP Deck, Platform/Stair Access System.
e. Two (2) packages of Fender Construction Drawings and Design Calculations

ii. Mechanical
a. Two (2) packages of Drive Machinery Drawings and Design Calculations
b. Two (2) packages of Locking Mechanism Drawings and Design Calculations
c. Three (3) packages of System-Specific Machinery Drawings and Design Calculations

iii. Electrical
a. Two (2) packages of Power Distribution Drawings and Design Calculations
b. Two (2) packages of Control Systems Drawings and Design Calculations
c. One (1) package of Cross-Channel Communications and Power Drawings and Design Calculations
d. One (1) package of System-Specific Electrical Drawings and Calculations

iv. Facilities
a. Two (2) packages of Fire and Security Drawings and Design Calculations
b. Three (3) packages of Electrical Drawings and Design Calculations
c. Three (3) packages of Structural Drawings and Design Calculations
d. Three (3) packages of Architectural Drawings and Design Calculations
e. One (1) package of Plumbing Drawings and Design Calculations
f. One (1) package of HVAC Drawings and Calculations

C. Working Drawing Reviews *

i. Twelve (12) packages of temporary structural works (formwork, temporary work platforms, cofferdams, water work plans, crane usage plans, etc.)
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Balance Calculations
ii. O&M Manuals
iii. Four (4) Mechanical Installation Procedures
iv. Two (2) Mechanical Shop Test Procedures
v. One (1) Electrical Installation Procedure
vi. Four (4) Electrical Shop Test Procedures

vii. One (1) Mechanical/Electrical Functional Checkout Procedure
viii. Review and provide recommendations on One Hundred (100) Requests for Information (Structural)
ix. Review and provide recommendations on Twenty-Five (25) Requests for Information (Mechanical)
x. Review and provide recommendations on Twenty-Five (25) Requests for Information (Electrical)
xi. Review and provide recommendations on Twenty-Five (25) Requests for Information (Facilities)
xii. Review and provide recommendations on eight (8) NCR's (Structural)
xiii. Review and provide recommendations on two (2) NCR's (Mechanical)
xiv. Review and provide recommendations on two (2) NCR's (Electrical)
xv. Review and provide recommendations on two (2) NCR's (Facilities)
xvi. Review and provide recommendations on ten (10) Issue Papers
xvii. Strain Gauge Balance Report
xviii. Review and provide recommendations on four (4) Technical Special Provisions (1 document for each discipline)
xix. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform ten (10) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that sixteen (16) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with the CITY, Contractor, and others
ii. Ten (10) two-hour Design Coordination Meetings (average 2 attendees each)
iii. One (1) Construction Kick-off Meeting
iv. Twenty-five (25) two-hour Construction Coordination Meetings (average 2 attendees each)
v. Ten (10) on-site Construction Progress Meetings

G. Shop/Site Inspections *
i. Three (3) Mechanical shop inspections
ii. Four (4) Electrical shop inspections
iii. Six (6) Structural shop inspections
iv. Six (6) Mechanical site inspections
v. Six (6) Electrical site inspections
vi. Twelve (12) Structural site inspections
vii. Two (2) Mechanical Functional Check-out site inspections (Initial, and Follow-up)

viii. Two (2) Electrical Functional Check-out site inspections (Initial, and Follow-up)

14.5. Hydraulic Design Review Responsibilities

A. Hydraulic Design reviews performed for the entire project limits for each site*

i. Preliminary Roadway Plans and Preliminary Roadway Drainage Report
ii. Preliminary Bridge Plans and Preliminary Bridge Hydraulic Design Report for Ashley River
iii. Right of Way Plans (Roadway/Path) and Final Roadway Drainage Report
iv. Final Bridge Plans and Final Bridge Hydraulic Design Report for Ashley River
v. Final Roadway/Path Plans

B. Additional Project-wide reviews will include: *

i. Signed, completed copy of the SCDHEC Notice of Intent (NOI)
ii. No Impact, CLOMR and LOMR, Ashley River

C. Miscellaneous Submittal Reviews will include (numbers are a total for both sites combined): *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight (8)-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.6. Geotechnical Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Roadway Geotechnical Reports
ii. Final Roadway Geotechnical Engineering Reports, including Roadway and Roadway Structures
iii. Preliminary Bridge Geotechnical Report
iv. Final Bridge Geotechnical Engineering Report
v. Geotechnical Bridge Plan Sheets
vi. Geotechnical Roadway Plan Sheets
vii. Two (2) sets of Foundation Installation Plans
viii. Two (2) sets of Foundation Testing Reports

B. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations

C. Miscellaneous Submittals Reviews will include:*

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.7. Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for the plan submittals noted below:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *
viii. Traffic Management Plan *
ix. Conceptual Work Zone Traffic Control Plans*
x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

15. CONSTRUCTION ENGINEERING, INSPECTION AND ADMINISTRATION (CEI&A)

If this task is needed the scope and fee will be under a contract modification.

ATTACHMENT "B"

SERVICES OF THE CITY

The CITY agrees to provide to the CONSULTANT, and at no cost to the CONSULTANT, the following upon request:

1. Access to and use of all reports, data and information in possession of the CITY which may prove pertinent to the work set forth herein.
2. Existing Policies and Procedures of the CITY with reference to geometrics, standards, specifications and methods pertaining to all phases of the CONSULTANT's work.

ATTACHMENT "C"

ENGINEERING FEE

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 2.46

Project Information

Project Name	**Ashley River Pedestrian Bridge**
Project Phase or Segment	**DB Prepraration Services**
Project Location	**Charleston**
CM Number/Descriptor	**CP-2007**
Contract Designation	

Labor Multipliers

Overhead Rate	150.81 %	*a*
FCCM Rate	0.57 %	*b*
Profit Rate	10.00 %	*c*
Combined Multiplier	2.7646	*(1 + a)*(1 + c) + b*

Consultant Information

Firm Name	**HDR**
Certified DBE ?	No
Reviewer Name	
Submittal Date	**September 10, 2020**
Estimate Type	**Prime Consultant**

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Task Identification

Active	Number	Description
✓	01	**Project Organization and Management**
✓	02	**Aerial Mapping and Field Surveys**
✓	03	**Traffic Studies and Modeling**
✓	04	**Environmental Services**
✓	05	**Roadway and Path Design**
✓	06	**Structural Design**
✓	07	**Hydrology and Hydraulic Design**
✓	08	**Geotechnical Services and Pavement Design**
✓	09	**Utility Coordination**
✓	10	**Subsurface Utility Engineering**
✓	11	**Right of Way**
✓	12	**Development of RFQ and RFP**
✓	13	**Procurement**
✓	14	**Design Plan Review and Administration**
	15	**CE&I**
	16	
	17	
	18	
	19	
	20	

Subconsultant Roster

Subconsultant	Certified DBE ?
Alta	
Bihl	Yes
Atlantic South	Yes
Cornerstone	Yes
McKim & Creed	
Stantec	
DESA	Yes
Mid Atlantic Drilling	Yes
Soil Consultants	Yes
Providence Engineering Consultants	Yes

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	**Task 10**
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 2
MFE Version 2.46

Staff Classifications and Rates

Ashley River Pedestrian Bridge (DB Prepraration Services)

DIRECT SALARY RATE SCHEDULE

Staff Classification	Base Rate	Loaded*
Principal	$ 93.63	$ 258.85
Sr Project Manager	$ -	$ -
Project Manager	$ 69.48	$ 192.09
Sr Transportation Engineer	$ 63.41	$ 175.30
Transportation Engineer	$ 37.99	$ 105.03
Jr Transportation Engineer/EIT	$ 31.32	$ 86.59
Sr. Structural Engineer	$ 81.11	$ 224.24
Structural Engineer	$ 59.00	$ 163.11
Jr. Structural Engineer/EIT	$ 36.39	$ 100.60
Sr Hydraulic Engineer	$ 68.00	$ 187.99
Hydraulic Engineer	$ 55.00	$ 152.05
Jr. Hydraulic Engineer/EIT	$ 35.00	$ 96.76
Sr. Geotechnical Engineer	$ 68.80	$ 190.21
Geotechnical Engineer	$ 47.46	$ 131.21
Jr. Geotechnical Engineer/EIT	$ 32.09	$ 88.72
Sr Traffic Engineer	$ 61.19	$ 169.17
Traffic Engineer	$ 44.31	$ 122.50
Jr Traffic Engineer/EIT	$ 30.90	$ 85.43
Sr. Utilities Engineer	$ -	$ -
Utilities Engineer	$ -	$ -
Utilities Coordinator	$ -	$ -
Sr Electrical Engineer	$ 75.62	$ 209.06
Electrical Engineer	$ 48.35	$ 133.67
Jr Electrical Engineer/EIT	$ 37.61	$ 103.98
Sr Transportation Planner	$ -	$ -
Transportation Planner	$ -	$ -
Jr Transportation Planner	$ -	$ -
Transportation Modeler	$ -	$ -
Project Economist	$ -	$ -
Sr Landscape Architect	$ -	$ -
Landscape Architect	$ -	$ -
Sr Architect	$ 70.00	$ 193.52
Architect	$ -	$ -
Sr Land Surveyor	$ -	$ -
Land Surveyor	$ -	$ -
Jr Land Surveyor/LSIT	$ -	$ -
Sr. Environmental Specialist	$ 69.70	$ 192.69
Environmental Specialist	$ 46.69	$ 129.08
Jr. Environmental Specialist	$ 31.96	$ 88.36
Principal Investigator	$ -	$ -
Project Historian	$ -	$ -
Project Architectural Historian	$ 45.00	$ 124.41
Project Archaeologist	$ 47.00	$ 129.94
Project Geologist	$ 40.89	$ 113.04
Project Biologist	$ -	$ -
Project Wetlands Ecologist	$ -	$ -
Project Laboratory Director	$ -	$ -
Project Laboratory Technician	$ -	$ -
Sr. Engineering Technician	$ 48.65	$ 134.50
Engineering Technician	$ 36.15	$ 99.94
Jr. Engineering Technician	$ -	$ -
Sr Structural Engineering Technician	$ -	$ -
Structural Engineering Technician	$ 40.00	$ 110.58
Sr Permitting Technician	$ -	$ -
Permitting Technician	$ -	$ -
Sr Survey Technician	$ -	$ -
Survey Technician	$ -	$ -
Jr Survey Technician	$ -	$ -
Sr. GIS Technician	$ -	$ -
GIS Technician	$ -	$ -
Jr. GIS Technician	$ -	$ -
Sr. Administrative Assistant	$ -	$ -
Administrative Assistant	$ 36.78	$ 101.68
Office Manager	$ -	$ -
Controller/Accountant	$ -	$ -
Survey Crew Chief	$ -	$ -
Survey Instrument Man	$ -	$ -
Survey Rodman	$ -	$ -
SUE Crew Manager	$ -	$ -
SUE Technician	$ -	$ -
Drill Rig Crew Manager	$ -	$ -
Drill Rig Technician	$ -	$ -
Sr. Certified Inspector	$ -	$ -
Certified Inspector	$ -	$ -
Jr. Certified Inspector	$ -	$ -
Sr ROW Specialist	$ -	$ -
ROW Abstractor	$ -	$ -
ROW Appraiser	$ -	$ -
Information Technology Specialist	$ -	$ -
Graphics Designer	$ 34.21	$ 94.58
Public Involvement Specialist	$ 43.00	$ 118.88
Sr Mechanical Engineer	$ 79.41	$ 219.54
Mechanical Engineer	$ 47.40	$ 131.04
Jr Aerial Mapper	$ -	$ -

Rate	Employee Name	Rate	Employee Name	Rate	Employee Name
$ 93.63	David Kinard	$ -		$ -	
$ -		$ -		$ -	
$ 69.48	Michael Darby	$ -		$ -	
$ 63.41	Phillip Hutcherson	$ -		$ -	
$ 37.99	Lee Tupper	$ -		$ -	
$ 31.32	Fedora Nwachukwu	$ -		$ -	
$ 89.40	Herb Protin	$ 84.19	Greg Harrell	$ 69.73	George Nickels
$ 59.00	Tim Strickland	$ -		$ -	
$ 41.44	Phil Monticciolo	$ 35.92	Stephanie Santrich	$ 31.81	Elie Haddad
$ 68.00	Ed Owens	$ -		$ -	
$ 55.00	Tom Miller	$ -		$ -	
$ 35.00	Cole Pierce	$ -		$ -	
$ 61.53	Lila Leon	$ 76.07	Sanjoy Chakraborty	$ -	
$ 46.02	Kenny Bussey	$ 48.89	Anil Varri	$ -	
$ 32.61	Zach Bruce	$ 31.56	Phillip Grainger	$ -	
$ 61.19	Josh Johnson	$ -		$ -	
$ 44.31	Graham Malone	$ -		$ -	
$ 30.90	Bekah Payne	$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ 95.00	Raphael Costa	$ 63.20	David Neveu	$ 68.66	Yetunde Adelekan
$ 50.40	Farid Amador	$ 48.08	Chuanyue Shen	$ 46.57	Samir Abde
$ 36.06	Chad Ingram	$ 34.03	Carlos Larco	$ 42.74	Anton Matevski
$ -		$ -		$ -	
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$ -		$ -		$ -	
$ 69.70	Jennifer Pearson	$ -		$ -	
$ 43.37	Erica Wadl	$ 50.00	Jeanne Barnes	$ -	
$ 31.96	Miles Spenrath	$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ 45.00	Jessica Forbes	$ -		$ -	
$ 47.00	Josh Fletcher	$ -		$ -	
$ 35.31	Jared Crenshaw	$ 46.47	Bret Watkins	$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ 48.65	Joe Rath	$ -		$ -	
$ 40.51	Chas Wolfe	$ 31.78	Wesley Shuecraft	$ -	
$ -		$ -		$ -	
$ -		$ -		$ -	
$ 40.00		$ -		$ -	
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$ 36.78	Karen Watterson	$ -		$ -	
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$ -		$ -		$ -	
$ 38.17	Erin Koch	$ 30.25	Stefani Wilkens	$ -	
$ 43.00	Samantha Dubay	$ -		$ -	
$ 77.63	Mike Carlton	$ 70.00	Stephen Grabowski	$ 90.61	Paul Jakubicki
$ 45.69	Diana Jandreski	$ 49.10	Matt Cassera	$ -	
$ -		$ -		$ -	

* Effective "Loaded" Hourly Rate (Base Rate x "Combined Multiplier") Provided for information only

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 3
MFE Version 2.46

Non-salary Direct Expense Rates

Ashley River Pedestrian Bridge (DB Prepraration Services)

DIRECT NON-LABOR COSTS SCHEDULE

Expense Description	Unit Cost	Unit	Unit (plural)	Backup	Notes
Per Diem, with Overnight Stay	$ 55.00	day	days		
Per Diem, without Overnight Stay	$ 40.00	day	days		
Lodging	$ 108.00	night	nights		
Mileage	$ 0.58	mile	miles		
Shipping, Standard	$ 10.00	shipment	shipments		
Shipping, Overnight	$ 50.00	shipment	shipments		
Printing, B&W 8.5 x 11	$ 0.08	each	each		
Printing, Color 8.5 x 11	$ 0.25	each	each		
Printing, B&W 11 x 17	$ 0.15	each	each		
Printing, Color 11 x 17	$ 0.50	each	each		
Public Meeting Venue Rental	$ 500.00	each	each		
Public Meeting Boards	$ 100.00	each	each		
PAN	$ 64,000.00	LS	LS		
Tidewater Atlantic	$ 12,413.24	LS	LS		
	$ -				
	$ -	day	days		
	$ -	day	days		
	$ -				
	$ -	test hole	test holes		
	$ -	LF	LF		
	$ -	LF	LF		
	$ -	LF	LF		
	$ -	pole	LF		
	$ -	manhole	manholes		
	$ -				
	$ -	day	days		
	$ -	day	days		
	$ -	day	days		
	$ -				
	$ -	LS	LS		
	$ -	LS	LS		
	$ -				
	$ -	LS	LS		
	$ -				
Pyramid (2D MASW Testing)	$ 7,117.00	LS	LS		
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				
	$ -				

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 4
MFE Version 2.46

Subconsultant Involvement by Task

Ashley River Pedestrian Bridge (DB Prepraration Services)

	Task																		
	01	02	03	04	05	06	07	08	09	10	11	12	13	14	15				
	Project Organization and Management	Aerial Mapping and Field Surveys	Traffic Studies and Modeling	Environmental Services	Roadway and Path Design	Structural Design	Hydrology and Hydraulic Design	Geotechnical Services and Pavement Design	Utility Coordination	Subsurface Utility Engineering	Right of Way	Development of RFQ and RFP	Procurement	Design Plan Review and Administration	CE&I				
Alta				x	x							x	x	x						5
Bihl			x	x								x		x						4
Atlantic South					x				x											2
Cornerstone		x																		1
McKim & Creed		x								x										2
Stantec					x		x													2
DESA				x																1
Mid Atlantic Drilling								x												1
Soil Consultants								x												1
Providence Engineering Consultants				x								x	x	x						4
																				Count
																				23

Brief Description of Subconsultant Role & Responsibilites for the Project

Alta	
Bihl	
Atlantic South	
Cornerstone	
McKim & Creed	
Stantec	
DESA	
Mid Atlantic Drilling	
Soil Consultants	
Providence Engineering Consultants	

Manhour and Fee Estimate
Ashley River Pedestrian Bridge (DB Prepraration Services)
Charleston
CP-2007

HDR
Prime Consultant

9/10/2020

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 136,599.41	$ 1,049.25	$ -	$ 137,648.66	6.9%
02	Aerial Mapping and Field Surveys	$ -	$ -	$ 126,320.09	$ 126,320.09	6.3%
03	Traffic Studies and Modeling	$ 33,578.58	$ 118.00	$ 7,143.55	$ 40,840.13	2.0%
04	Environmental Services	$ 172,131.80	$ 15,523.24	$ 19,679.60	$ 207,334.64	10.3%
05	Roadway and Path Design	$ 37,305.14	$ 394.25	$ 98,535.06	$ 136,234.45	6.8%
06	Structural Design	$ 131,176.09	$ 2,018.50	$ -	$ 133,194.59	6.6%
07	Hydrology and Hydraulic Design	$ 53,569.53	$ 357.25	$ 20,775.59	$ 74,702.37	3.7%
08	Geotechnical Services and Pavement Design	$ 91,352.77	$ 10,821.00	$ 205,405.00	$ 307,578.77	15.3%
09	Utility Coordination	$ -	$ -	$ 35,339.35	$ 35,339.35	1.8%
10	Subsurface Utility Engineering	$ -	$ -	$ 50,820.00	$ 50,820.00	2.5%
11	Right of Way	$ 14,292.81	$ 64,569.10	$ -	$ 78,861.91	3.9%
12	Development of RFQ and RFP	$ 40,608.88	$ 708.50	$ 103,101.11	$ 144,418.49	7.2%
13	Procurement	$ 77,292.85	$ -	$ 45,745.22	$ 123,038.07	6.1%
14	Design Plan Review and Administration	$ 359,196.93	$ -	$ 53,701.17	$ 412,898.10	20.6%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,147,104.79	$ 95,559.09	$ 766,565.74	$2,009,229.62	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 49,410.00	$ 74,515.24	$ 12,392.53	$ 281.64	$ 136,599.41	$ 1,049.25	$ 137,648.66
02	Aerial Mapping and Field Surveys	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ 12,145.86	$ 18,317.18	$ 3,046.31	$ 69.23	$ 33,578.58	$ 118.00	$ 33,696.58
04	Environmental Services	$ 62,262.60	$ 93,898.21	$ 15,616.09	$ 354.90	$ 172,131.80	$ 15,523.24	$ 187,655.04
05	Roadway and Path Design	$ 13,493.82	$ 20,350.03	$ 3,384.38	$ 76.91	$ 37,305.14	$ 394.25	$ 37,699.39
06	Structural Design	$ 47,448.32	$ 71,556.81	$ 11,900.51	$ 270.45	$ 131,176.09	$ 2,018.50	$ 133,194.59
07	Hydrology and Hydraulic Design	$ 19,376.88	$ 29,222.28	$ 4,859.92	$ 110.45	$ 53,569.53	$ 357.25	$ 53,926.78
08	Geotechnical Services and Pavement Design	$ 33,043.64	$ 49,833.11	$ 8,287.67	$ 188.35	$ 91,352.77	$ 10,821.00	$ 102,173.77
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Subsurface Utility Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ 5,169.92	$ 7,796.75	$ 1,296.67	$ 29.47	$ 14,292.81	$ 64,569.10	$ 78,861.91
12	Development of RFQ and RFP	$ 14,688.82	$ 22,152.22	$ 3,684.11	$ 83.73	$ 40,608.88	$ 708.50	$ 41,317.38
13	Procurement	$ 27,957.96	$ 42,163.39	$ 7,012.15	$ 159.35	$ 77,292.85	$ -	$ 77,292.85
14	Design Plan Review and Administration	$ 129,926.80	$ 195,942.60	$ 32,586.95	$ 740.58	$ 359,196.93	$ -	$ 359,196.93
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 414,924.62	$ 625,747.82	$ 104,067.29	$ 2,365.06	$ 1,147,104.79	$ 95,559.09	$ 1,242,663.88
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
HDR	$ 1,242,663.88		$ -
Alta	$ 44,335.01		$ -
Bihl	$ 42,616.06	100.0%	$ 42,616.06
Atlantic South	$ 46,212.04	100.0%	$ 46,212.04
Cornerstone	$ 103,222.91	100.0%	$ 103,222.91
McKim & Creed	$ 73,917.18		$ -
Stantec	$ 96,884.90		$ -
DESA	$ 7,500.00	100.0%	$ 7,500.00
Mid Atlantic Drilling	$ 160,000.00	100.0%	$ 160,000.00
Soil Consultants	$ 45,405.00	100.0%	$ 45,405.00
Providence Engineering Consultants	$ 146,472.64	100.0%	$ 146,472.64
	Total DBE Qualifying Fee		$ 551,428.65
	Percentage of Fee Total		27.4%

Fee Summary

A - Direct Labor	$	414,924.62
B - Overhead [A x 1.5081]	$	625,747.82
C - Profit [(A+B) x 0.1]	$	104,067.29
D - FCCM [A x 0.0057]	$	2,365.06
E - Labor Total	$	1,147,104.79
F - Total Non-Salary Direct Expenses	$	95,559.09
G - Subconsultant Fees	$	766,565.74
Fee Total	$	2,009,229.62

fee total less profit $1,905,162.33

Prepared by _____

Subconsultant Fee Summary

Subconsultant Fees Broken Down by Task

Task	Alta	Bihl	Atlantic South	Cornerstone	McKim & Creed	Stantec	DESA	Mid Atlantic Drilling	Soil Consultants	Providence Engineering Consultants	Total
01	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	$ -	$ -	$ -	$ 103,222.91	$ 23,097.18	$ -	$ -	$ -	$ -	$ -	$ 126,320.09
03	$ -	$ 7,143.55	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 7,143.55
04	$ 6,182.29	$ 2,650.47	$ -	$ -	$ -	$ -	$ 7,500.00	$ -	$ -	$ 3,346.84	$ 19,679.60
05	$ 11,553.06	$ -	$ 10,872.69	$ -	$ -	$ 76,109.31	$ -	$ -	$ -	$ -	$ 98,535.06
06	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	$ -	$ -	$ -	$ -	$ -	$ 20,775.59	$ -	$ -	$ -	$ -	$ 20,775.59
08	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 160,000.00	$ 45,405.00	$ -	$ 205,405.00
09	$ -	$ -	$ 35,339.35	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 35,339.35
10	$ -	$ -	$ -	$ -	$ 50,820.00	$ -	$ -	$ -	$ -	$ -	$ 50,820.00
11	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	$ 6,761.93	$ 8,060.87	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 88,278.31	$ 103,101.11
13	$ 6,761.93	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 38,983.29	$ 45,745.22
14	$ 13,075.80	$ 24,761.17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ 15,864.20	$ 53,701.17
15	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
17	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
18	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
19	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
20	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Totals	$ 44,335.01	$ 42,616.06	$ 46,212.04	$ 103,222.91	$ 73,917.18	$ 96,884.90	$ 7,500.00	$ 160,000.00	$ 45,405.00	$ 146,472.64	$ 766,565.74
											(G)

Fee Breakdown by Firm

HDR	$	1,242,663.88	61.8%
Alta	$	44,335.01	2.2%
Bihl	$	42,616.06	2.1%
Atlantic South	$	46,212.04	2.3%
Cornerstone	$	103,222.91	5.1%
McKim & Creed	$	73,917.18	3.7%
Stantec	$	96,884.90	4.8%
DESA	$	7,500.00	0.4%
Mid Atlantic Drilling	$	160,000.00	8.0%
Soil Consultants	$	45,405.00	2.3%
Providence Engineering Consultants	$	146,472.64	7.3%
Project Totals	$	2,009,229.62	

Manhour and Fee Estimate
Ashley River Pedestrian Bridge (DB Prepraration Services)
Charleston
CP-2007

HDR
Prime Consultant

9/10/2020

Project Manhour Summary

Staff Classification	Project Manhour Totals by Classification	Percentage of Total Hours	Task 01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I
Project Totals by Task	7221		716		322	1364	332	856	374	711			80	202	384	1880	
Principal	78	1.1%	64											6	8		
Sr. Project Manager																	
Project Manager	1105	15.3%	512			84	14	24	6	5			16	64	120	260	
Sr. Transportation Engineer	352	4.9%	16				58						64	18	56	140	
Transportation Engineer	256	3.5%					76									180	
Jr. Transportation Engineer/EIT	144	2.0%					144										
Sr. Structural Engineer	810	11.2%	16					120						36	96	540	
Structural Engineer	236	3.3%						236									
Jr. Structural Engineer/EIT	184	2.5%						184									
Sr. Hydraulic Engineer	188	2.6%	8						80					8	12	80	
Hydraulic Engineer	292	4.0%							172							120	
Jr. Hydraulic Engineer/EIT	116	1.6%							116								
Sr. Geotechnical Engineer	546	7.6%	8							186				20	12	320	
Geotechnical Engineer	88	1.2%								88							
Jr. Geotechnical Engineer/EIT	184	2.5%								184							
Sr. Traffic Engineer	30	0.4%			30												
Traffic Engineer	96	1.3%			96												
Jr. Traffic Engineer/EIT	196	2.7%			196												
Sr. Utilities Engineer																	
Utilities Engineer																	
Utilities Coordinator																	
Sr. Electrical Engineer	160	2.2%						28						12	20	100	
Electrical Engineer	36	0.5%						36									
Jr. Electrical Engineer/EIT																	
Sr. Transportation Planner																	
Transportation Planner																	
Jr. Transportation Planner																	
Transportation Modeler																	
Project Economist																	
Sr. Landscape Architect																	
Landscape Architect																	
Sr. Architect	60	0.8%						36						12	12		
Architect																	
Sr. Land Surveyor																	
Land Surveyor																	
Jr. Land Surveyor/LSIT																	
Sr. Environmental Specialist	300	4.2%	32			188								12	28	40	
Environmental Specialist	296	4.1%				296											
Jr. Environmental Specialist	236	3.3%				236											
Principal Investigator																	
Project Historian																	
Project Architectural Historian	84	1.2%				84											

Project Manhour Summary

Staff Classification	Project Manhour Totals by Classification	Percentage of Total Hours	Task 01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I
Project Totals by Task	**7221**		716		322	1364	332	856	374	711			80	202	384	1880	
Project Archaeologist	48	0.7%				48											
Project Geologist	180	2.5%								180							
Project Biologist																	
Project Wetlands Ecologist																	
Project Laboratory Director																	
Project Laboratory Technician																	
Sr. Engineering Technician																	
Engineering Technician	108	1.5%					40			68							
Jr. Engineering Technician																	
Sr. Structural Engineering Technician																	
Structural Engineering Technician	128	1.8%						128									
Sr. Permitting Technician																	
Permitting Technician																	
Sr. Survey Technician																	
Survey Technician																	
Jr. Survey Technician																	
Sr. GIS Technician																	
GIS Technician																	
Jr. GIS Technician																	
Sr. Administrative Assistant																	
Administrative Assistant	80	1.1%	60			20											
Office Manager																	
Controller/Accountant																	
Survey Crew Chief																	
Survey Instrument Man																	
Survey Rodman																	
SUE Crew Manager																	
SUE Technician																	
Drill Rig Crew Manager																	
Drill Rig Technician																	
Sr. Certified Inspector																	
Certified Inspector																	
Jr. Certified Inspector																	
Sr. ROW Specialist																	
ROW Abstractor																	
ROW Appraiser																	
Information Technology Specialist																	
Graphics Designer	268	3.7%				268											
Public Involvement Specialist	140	1.9%				140											
Sr. Mechanical Engineer	160	2.2%						28						12	20	100	
Mechanical Engineer	36	0.5%						36									
Jr Aerial Mapper																	

Non-salary Direct Expense Summary

Expense Description	Total Units		Total Cost	01 Project Organization and Management	02 Aerial Mapping and Field Surveys	03 Traffic Studies and Modeling	04 Environmental Services	05 Roadway and Path Design	06 Structural Design	07 Hydrology and Hydraulic Design	08 Geotechnical Services and Pavement Design	09 Utility Coordination	10 Subsurface Utility Engineering	11 Right of Way	12 Development of RFQ and RFP	13 Procurement	14 Design Plan Review and Administration	15 CE&I
Per Diem, with Overnight Stay	49	days	$ 2,695.00	X			X	X	X	X	X			X	X			
Per Diem, without Overnight Stay	2	days	$ 80.00								X							
Lodging	49	nights	$ 5,292.00	X			X	X	X	X	X			X	X			
Mileage	3950	miles	$ 2,271.25	X		X	X	X	X	X	X			X	X			
Shipping, Standard	13	shipments	$ 130.00	X		X	X			X								
Shipping, Overnight		shipments	$ -															
Printing, B&W 8.5 x 11	2020	each	$ 161.60	X		X	X		X	X				X	X			
Printing, Color 8.5 x 11	520	each	$ 130.00	X		X	X		X	X				X				
Printing, B&W 11 x 17	760	each	$ 114.00	X		X	X	X	X	X				X	X			
Printing, Color 11 x 17	310	each	$ 155.00	X		X	X	X	X	X				X				
Public Meeting Venue Rental	1	each	$ 500.00				X											
Public Meeting Boards	5	each	$ 500.00				X											
PAN	1	LS	$ 64,000.00											X				
Tidewater Atlantic	1	LS	$ 12,413.24				X											
			$ -															
		days	$ -															
		days	$ -															
			$ -															
		test holes	$ -															
		LF	$ -															
		LF	$ -															
		LF	$ -															
		LF	$ -															
		manholes	$ -															
			$ -															
		days	$ -															
		days	$ -															
		days	$ -															
			$ -															
		LS	$ -															
		LS	$ -															
			$ -															
		LS	$ -															
			$ -															
Pyramid (2D MASW Testing)	1	LS	$ 7,117.00								X							
			$ -															
			$ -															
			$ -															
			$ -															
			$ -															
			$ -															
			$ -															
			$ -															
			$ -															
Preliminary Geotechnical Investigation			$ -															
Final Geotechnical Investigation			$ -															
Total Non-salary Direct Expenses			$ 95,559.09															

Direct Salary Rate Schedule Certificate

Staff Classification	Average Hourly Wage Rate	Employee Name	Hourly Wage Rate	Employee Name	Hourly Wage Rate	Employee Name	Hourly Wage Rate
Principal	$ 93.63	David Kinard	$ 93.63		$ -		$ -
Sr Project Manager	$ -		$ -		$ -		$ -
Project Manager	$ 69.48	Michael Darby	$ 69.48		$ -		$ -
Sr Transportation Engineer	$ 63.41	Phillip Hutcherson	$ 63.41		$ -		$ -
Transportation Engineer	$ 37.99	Lee Tupper	$ 37.99		$ -		$ -
Jr Transportation Engineer/EIT	$ 31.32	Fedora Nwachukwu	$ 31.32		$ -		$ -
Sr. Structural Engineer	$ 81.11	Herb Pretin	$ 89.40	Greg Harrell	$ 84.19	George Nickels	$ 69.73
Structural Engineer	$ 59.00	Tim Strickland	$ 59.00		$ -		$ -
Jr. Structural Engineer/EIT	$ 36.39	Phil Monticciolo	$ 41.44	Stephanie Santrich	$ 35.92	Elie Haddad	$ 31.81
Sr Hydraulic Engineer	$ 68.00	Ed Owens	$ 68.00		$ -		$ -
Hydraulic Engineer	$ 55.00	Tom Miller	$ 55.00		$ -		$ -
Jr Hydraulic Engineer/EIT	$ 35.00	Cole Pierce	$ 35.00		$ -		$ -
Sr. Geotechnical Engineer	$ 68.80	Lila Leon	$ 61.53	Sanjoy Chakraborty	$ 76.07		$ -
Geotechnical Engineer	$ 47.46	Kenny Bussey	$ 46.02	Anil Varri	$ 48.89		$ -
Jr. Geotechnical Engineer/EIT	$ 32.09	Zach Bruce	$ 32.61	Phillip Grainger	$ 31.56		$ -
Sr Traffic Engineer	$ 61.19	Josh Johnson	$ 61.19		$ -		$ -
Traffic Engineer	$ 44.31	Graham Malone	$ 44.31		$ -		$ -
Jr Traffic Engineer/EIT	$ 30.90	Bekah Payne	$ 30.90		$ -		$ -
Sr. Utilities Engineer	$ -		$ -		$ -		$ -
Utilities Engineer	$ -		$ -		$ -		$ -
Utilities Coordinator	$ -		$ -		$ -		$ -
Sr Electrical Engineer	$ 75.62	Raphael Costa	$ 95.00	David Neves	$ 63.20	Yetunde Adelakun	$ 68.66
Electrical Engineer	$ 48.35	Farid Amador	$ 50.40	Chuanyue Shen	$ 48.08	Samir Abdo	$ 46.57
Jr Electrical Engineer/EIT	$ 37.61	Chad Ingram	$ 36.06	Carlos Larco	$ 34.03	Anton Matevski	$ 42.74
Sr. Transportation Planner	$ -		$ -		$ -		$ -
Transportation Planner	$ -		$ -		$ -		$ -
Jr. Transportation Planner	$ -		$ -		$ -		$ -
Transportation Modeler	$ -		$ -		$ -		$ -
Project Economist	$ -		$ -		$ -		$ -
Sr Landscape Architect	$ -		$ -		$ -		$ -
Landscape Architect	$ -		$ -		$ -		$ -
Sr Architect	$ 70.00		$ 70.00		$ -		$ -
Architect	$ -		$ -		$ -		$ -
Sr Land Surveyor	$ -		$ -		$ -		$ -
Land Surveyor	$ -		$ -		$ -		$ -
Jr Land Surveyor/LSIT	$ -		$ -		$ -		$ -
Sr. Environmental Specialist	$ 69.70	Jennifer Pearson	$ 69.70		$ -		$ -
Environmental Specialist	$ 46.69	Erica Wadl	$ 43.37	Jeanne Barnes	$ 50.00		$ -
Jr. Environmental Specialist	$ 31.96	Miles Speerath	$ 31.96		$ -		$ -
Principal Investigator	$ -		$ -		$ -		$ -
Project Historian	$ -		$ -		$ -		$ -
Project Architectural Historian	$ 45.00	Jessica Forbes	$ 45.00		$ -		$ -
Project Archaeologist	$ 47.00	Josh Fletcher	$ 47.00		$ -		$ -
Project Geologist	$ 40.89	Jared Crenshaw	$ 35.31	Bret Watkins	$ 46.47		$ -
Project Biologist	$ -		$ -		$ -		$ -
Project Wetlands Ecologist	$ -		$ -		$ -		$ -
Project Laboratory Director	$ -		$ -		$ -		$ -
Project Laboratory Technician	$ -		$ -		$ -		$ -
Sr. Engineering Technician	$ 48.65	Joe Rath	$ 48.65		$ -		$ -
Engineering Technician	$ 36.15	Chas Wolfe	$ 40.51		$ 31.78		$ -
Jr. Engineering Technician	$ -		$ -		$ -		$ -
Sr Structural Engineering Technician	$ -		$ -		$ -		$ -
Structural Engineering Technician	$ 40.00		$ 40.00		$ -		$ -
Sr Permitting Technician	$ -		$ -		$ -		$ -
Permitting Technician	$ -		$ -		$ -		$ -
Sr Survey Technician	$ -		$ -		$ -		$ -
Survey Technician	$ -		$ -		$ -		$ -
Jr Survey Technician	$ -		$ -		$ -		$ -
Sr. GIS Technician	$ -		$ -		$ -		$ -
GIS Technician	$ -		$ -		$ -		$ -
Jr. GIS Technician	$ -		$ -		$ -		$ -
Sr Administrative Assistant	$ -		$ -		$ -		$ -
Administrative Assistant	$ 36.78	Karen Watterson	$ 36.78		$ -		$ -
Office Manager	$ -		$ -		$ -		$ -
Controller/Accountant	$ -		$ -		$ -		$ -
Survey Crew Chief	$ -		$ -		$ -		$ -
Survey Instrument Man	$ -		$ -		$ -		$ -
Survey Rodman	$ -		$ -		$ -		$ -
SUE Crew Manager	$ -		$ -		$ -		$ -
SUE Technician	$ -		$ -		$ -		$ -
Drill Rig Crew Manager	$ -		$ -		$ -		$ -
Drill Rig Technician	$ -		$ -		$ -		$ -
Sr Certified Inspector	$ -		$ -		$ -		$ -
Certified Inspector	$ -		$ -		$ -		$ -
Jr. Certified Inspector	$ -		$ -		$ -		$ -
Sr ROW Specialist	$ -		$ -		$ -		$ -
ROW Abstractor	$ -		$ -		$ -		$ -
ROW Appraiser	$ -		$ -		$ -		$ -
Information Technology Specialist	$ -		$ -		$ -		$ -
Graphics Designer	$ 34.21	Erin Koch	$ 38.17	Stefani Wilkens	$ 30.25		$ -
Public Involvement Specialist	$ 43.00	Samantha Dubay	$ 43.00		$ -		$ -
Sr Mechanical Engineer	$ 79.41	Mike Carlton	$ 77.63	Stephen Grabowski	$ 70.00	Paul Jakubicki	$ 90.61
Mechanical Engineer	$ 47.40	Diana Jandreski	$ 45.69	Matt Cassera	$ 49.10		$ -
Jr Aerial Mapper	$ -		$ -		$ -		$ -

Consultant hereby certifies that the hourly wage rate shown is the actual rate paid the employee as of the submittal of this schedule. Consultant further acknowledges that:

a) the rates listed have been in effect for 30 days prior to this submittal (any exceptions should be identified on this schedule), and
b) any accepted changes to rates (including direct salary rates [DSR], escalated salary rates [ESR], overhead [OH] rates, and/or FCCM rates) will be limited by contract not to exceed (NTE) amounts.

Certified By

Title

Effective Date

Direct Non-Labor Costs Schedule Certificate

Expense Description		Unit Cost	Unit	Additional Backup Provided?	Note
Per Diem, with Overnight Stay	$	55.00	day		
Per Diem, without Overnight Stay	$	40.00	day		
Lodging	$	108.00	night		
Mileage	$	0.575	mile		
Shipping, Standard	$	10.00	shipment		
Shipping, Overnight	$	50.00	shipment		
Printing, B&W 8.5 x 11	$	0.08	each		
Printing, Color 8.5 x 11	$	0.25	each		
Printing, B&W 11 x 17	$	0.15	each		
Printing, Color 11 x 17	$	0.50	each		
Public Meeting Venue Rental	$	500.00	each		
Public Meeting Boards	$	100.00	each		
PAN	$	64,000.00	LS		
Tidewater Atlantic	$	12,413.240	LS		
	$	-			
	$	-	day		
	$	-	day		
	$	-			
	$	-	test hole		
	$	-	LF		
	$	-	LF		
	$	-	LF		
	$	-	pole		
	$	-	manhole		
	$	-			
	$	-	day		
	$	-	day		
	$	-	day		
	$	-			
	$	-	LS		
	$	-	LS		
	$	-			
	$	-	LS		
	$	-			
Pyramid (2D MASW Testing)	$	7,117.00	LS		
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			
	$	-			

The allowability of costs is dependent upon the standards in the Code of Federal Regulations (CFR) Title 48 - Federal Acquisition Regulations System (FARS), Part 31, "Contractor Cost Principles and Procedures."

Consultant hereby certifies that the direct non-labor rates charged to Agency projects shall be no greater than the lowest rates charged to other public or private clients, up to the rates listed above.

Certified By:

Title:

Effective Date:

Task 01: Project Organization and Management

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Administrative Assistant	-	-	Manhour Totals	
Manhour Totals by Classification	64	512	16	16	8	8	32	60			**716**	
Sub-task												
1.1 Project Management	40	288						24			352	49.2%
1.2 Schedule		40					16	8			64	8.9%
1.3 Progress Reports		24	16	16	8	8	16	4			92	12.8%
1.4 Project Reporting to FHWA	8	40									48	6.7%
1.5 Development of Agreements	16	120						24			160	22.3%

Task 01: Project Organization and Management

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
1.1	Project Management	352	Assumes 18 months through selection of design build contractor - PM for design reviews included i
1.2	Schedule	64	Creation of initial schedule and monthly updates as needed
1.3	Progress Reports	92	Monthly progress reports to be included with invoicing
1.4	Project Reporting to FHWA	48	Support city with required reporting to FHWA
1.5	Development of Agreements	160	Support city with agreements with SCDOT, County, FHWA as needed

Task 01: Project Organization and Management

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	64	$ 93.63	$ 5,992.32	$ 9,037.02	$ 1,502.93	$ 34.16	$ 16,566.43
Project Manager	512	$ 69.48	$ 35,573.76	$ 53,648.79	$ 8,922.26	$ 202.77	$ 98,347.58
Sr. Transportation Engineer	16	$ 63.41	$ 1,014.56	$ 1,530.06	$ 254.46	$ 5.78	$ 2,804.86
Sr Structural Engineer	16	$ 81.11	$ 1,297.76	$ 1,957.15	$ 325.49	$ 7.40	$ 3,587.80
Sr. Hydraulic Engineer	8	$ 68.00	$ 544.00	$ 820.41	$ 136.44	$ 3.10	$ 1,503.95
Sr Geotechnical Engineer	8	$ 68.80	$ 550.40	$ 830.06	$ 138.05	$ 3.14	$ 1,521.65
Sr. Environmental Specialist	32	$ 69.70	$ 2,230.40	$ 3,363.67	$ 559.41	$ 12.71	$ 6,166.19
Administrative Assistant	60	$ 36.78	$ 2,206.80	$ 3,328.08	$ 553.49	$ 12.58	$ 6,100.95
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	**716**		**$ 49,410.00 (A)**	**$ 74,515.24 (B)**	**$ 12,392.53 (C)**	**$ 281.64 (D)**	**$ 136,599.41 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard	5	shipments	@	$ 10.00	per shipment	$ 50.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay	5	days	@	$ 55.00	per day	$ 275.00
Lodging	5	nights	@	$ 108.00	per night	$ 540.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 1,049.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 49,410.00
B	Overhead [A x 1.5081]	$ 74,515.24
C	Profit [(A+B) x 0.1]	$ 12,392.53
D	FCCM [A x 0.0057]	$ 281.64
E	Labor Total	$ 136,599.41
F	Non-salary Direct Expenses	$ 1,049.25
G	Subconsultant Fees	$ -
	Task Total	$ 137,648.66

$137,648.66

Task 02: Aerial Mapping and Field Surveys

Manhours

Staff Classification	Project Manager	Transportation Engineer	Hydraulic Engineer	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification											

Sub-task												
2.2	Field Surveys											
2.2.1	Project Survey Control											
2.2.2	Best Fit ERA											
2.2.3	Courthouse Research											
2.2.4	Field Survey Detectable Property Monuments											
2.2.5	Property Strip Map and Existing Road ROW											
2.2.6	Supplemental Aerial Mapping											
2.2.7	Drainage Feature Surveys											
2.2.8	Storm Drainage Structures											
2.2.9	Gravity Sanitary Sewer Manholes											
2.2.10	Wetland Boundaries											
2.2.11	Geotechnical Bore Holes											
2.2.12	Traffic Control											
2.2.13	Bathymetric Surveys											

Task 02: Aerial Mapping and Field Surveys

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
2.2	Field Surveys		Coordination w/ McKim & Creed and Cornerstone included in Task 1
2.2.1	Project Survey Control		
2.2.2	Best Fit ERA		
2.2.3	Courthouse Research		
2.2.4	Field Survey Detectable Property Monuments		
2.2.5	Property Strip Map and Existing Road ROW		
2.2.6	Supplemental Aerial Mapping		
2.2.7	Drainage Feature Surveys		
2.2.8	Storm Drainage Structures		
2.2.9	Gravity Sanitary Sewer Manholes		
2.2.10	Wetland Boundaries		
2.2.11	Geotechnical Bore Holes		
2.2.12	Traffic Control		
2.2.13	Bathymetric Surveys		

Task 02: Aerial Mapping and Field Surveys

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150 81%	Profit 10 00%	FCCM 0 57%	Labor Total
Project Manager		$ 69 48	$ -	$ -	$ -	$ -	$ -
Transportation Engineer		$ 37 99	$ -	$ -	$ -	$ -	$ -
Hydraulic Engineer		$ 55 00	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ 103,222 91	
	McKim & Creed	$ 23,097 18	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 126,320.09 (G)	

Fee Summary for Task

A	Direct Labor	$ -
B	Overhead [A x 1.5081]	$ -
C	Profit [(A+B) x 0.1]	$ -
D	FCCM [A x 0.0057]	$ -
E	Labor Total	$ -
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 126,320.09
	Task Total	$ 126,320.09

$126,320.09

Task 03: Traffic Studies and Modeling

Manhours

Staff Classification	Sr Traffic Engineer	Traffic Engineer	Jr Traffic Engineer/EIT	,	,	,	,	,	,	,	Manhour Totals	
Manhour Totals by Classification	30	96	196								322	
Sub-task												
3.1 Field Survey		8	8								16	5.0%
3.2 Traffic Data Collection		8	18								26	8.1%
3.3 Work Zone Traffic Control Study	10	24	48								82	25.5%
3.4 Traffic Analysis	20	56	122								198	61.5%

Task 03: Traffic Studies and Modeling

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
3.1	Field Survey	16	One day visit to site
3.2	Traffic Data Collection	26	Review of existing studies and extracting best available data
3.3	Work Zone Traffic Control Study	82	Study at 4 sites
3.4	Traffic Analysis	198	

Task 03: Traffic Studies and Modeling

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Sr. Traffic Engineer	30	$ 61.19	$ 1,835.70	$ 2,768.42	$ 460.41	$ 10.46	$ 5,074.99
Traffic Engineer	96	$ 44.31	$ 4,253.76	$ 6,415.10	$ 1,066.89	$ 24.25	$ 11,760.00
Jr. Traffic Engineer/EIT	196	$ 30.90	$ 6,056.40	$ 9,133.66	$ 1,519.01	$ 34.52	$ 16,743.59
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	322		$ 12,145.86 (A)	$ 18,317.18 (B)	$ 3,046.31 (C)	$ 69.23 (D)	$ 33,578.58 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	100	miles	@	$ 0.575	per mile	$ 57.50
Shipping, Standard	2	shipments	@	$ 10.00	per shipment	$ 20.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay		days	@	$ 55.00	per day	$ -
Lodging		nights	@	$ 108.00	per night	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 118.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ 7,143.55	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 7,143.55 (G)	

Fee Summary for Task

A	Direct Labor	$ 12,145.86
B	Overhead [A x 1.5081]	$ 18,317.18
C	Profit [(A+B) x 0.1]	$ 3,046.31
D	FCCM [A x 0.0057]	$ 69.23
E	Labor Total	$ 33,578.58
F	Non-salary Direct Expenses	$ 118.00
G	Subconsultant Fees	$ 7,143.55
	Task Total	$ 40,840.13

$40,840.13

Task 04: Environmental Services

Manhours

Staff Classification	Project Manager	Sr Environmental Specialist	Environmental Specialist	Jr Environmental Specialist	Project Architectural Historian	Project Archaeologist	Graphics Designer	Public Involvement Specialist	Administrative Assistant	-	Manhour Totals
Manhour Totals by Classification	84	188	296	236	84	48	268	140	20		**1364**

Sub-task												
4.1 Initial Field Surveys and Project Initiation												
4.1.1 Desktop Survey			4				8				12	0.9%
4.1.2 Agency Meetings	4	22	8								34	2.5%
4.1.3 Jurisdictional Determination												
4.2 Environmental Analysis, Documentation, & Review												
4.2.1 Geotechnical Studies PCE		8	24								32	2.3%
4.2.2 Non-Programmatic CE	2	24	40	16	4	4	24				114	8.4%
1 Land Use			4								4	0.3%
2 Farmlands			2								2	0.1%
3 Cultural Resources		8			80	44	40				172	12.6%
4 Section 4(f)/6(f)		4	16	48			20				88	6.5%
5 Parks and Rec				2							2	0.1%
6 Social and Economic			2	4			2				8	0.6%
7 Displacements				2							2	0.1%
8 Environmental Justice			2	8			2				12	0.9%
9 Essential Fish Habitat		16	40				16				72	5.3%
10 Compensatory Mitigation		8	2								10	0.7%
11 USCG Coordination	8	12		40			12				72	5.3%
12 Haz Waste/UST		4	40	8			4				56	4.1%
13 Wetlands/Water Quality			2	4							6	0.4%
14 Threatened and Endangered Species		4	16	24			8				52	3.8%
15 Environmental Commitment Form		2	8								10	0.7%
4.2.3 QA/QC of Environmental Document	16	16									32	2.3%
4.3.0 Permitting												
1 USCG Permit	8	12		40			12				72	5.3%
2 USACE Permit	4	8	24	40			24				100	7.3%
3 SCDHEC OCRM Permit	2	16	30				16				64	4.7%
4.4.0 Public Involvement	40	24	32				80	140	20		336	24.6%

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1 Initial Field Surveys and Project Initiation		
4.1.1 Desktop Survey	12	
4.1.2 Agency Meetings	34	
4.1.3 Jurisdictional Determination		Completed in pre-work
4.2 Environmental Analysis, Documentation, & Review		
4.2.1 Geotechnical Studies PCE	32	
4.2.2 Non-Programmatic CE	114	
1 Land Use	4	
2 Farmlands	2	
3 Cultural Resources	172	
4 Section 4(f)/6(f)	88	
5 Parks and Rec	2	
6 Social and Economic	8	
7 Displacements	2	
8 Environmental Justice	12	
9 Essential Fish Habitat	72	
10 Compensatory Mitigation	10	
11 USCG Coordination	72	
12 Haz Waste/UST	56	
13 Wetlands/Water Quality	6	
14 Threatened and Endangered Species	52	
15 Environmental Commitment Form	10	
4.2.3 QA/QC of Environmental Document	32	
4.3.0 Permitting		
1 USCG Permit	72	
2 USACE Permit	100	
3 SCDHEC OCRM Permit	64	
4.4.0 Public Involvement	336	

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	84	$ 69.48	$ 5,836.32	$ 8,801.75	$ 1,463.81	$ 33.27	$ 16,135.15
Sr Environmental Specialist	188	$ 69.70	$ 13,103.60	$ 19,761.54	$ 3,286.51	$ 74.69	$ 36,226.34
Environmental Specialist	296	$ 46.69	$ 13,820.24	$ 20,842.30	$ 3,466.25	$ 78.78	$ 38,207.57
Jr Environmental Specialist	236	$ 31.96	$ 7,542.56	$ 11,374.93	$ 1,891.75	$ 42.99	$ 20,852.23
Project Architectural Historian	84	$ 45.00	$ 3,780.00	$ 5,700.62	$ 948.06	$ 21.55	$ 10,450.23
Project Archaeologist	48	$ 47.00	$ 2,256.00	$ 3,402.27	$ 565.83	$ 12.86	$ 6,236.96
Graphics Designer	268	$ 34.21	$ 9,168.28	$ 13,826.68	$ 2,299.50	$ 52.26	$ 25,346.72
Public Involvement Specialist	140	$ 43.00	$ 6,020.00	$ 9,078.76	$ 1,509.88	$ 34.31	$ 16,642.95
Administrative Assistant	20	$ 36.78	$ 735.60	$ 1,109.36	$ 184.50	$ 4.19	$ 2,033.65
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	1364		$ 62,262.60 (A)	$ 93,898.21 (B)	$ 15,616.09 (C)	$ 354.90 (D)	$ 172,131.80 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard	5	shipments	@	$ 10.00	per shipment	$ 50.00
Printing, B&W 8.5 x 11	500	each	@	$ 0.08	per each	$ 40.00
Printing, Color 8.5 x 11	250	each	@	$ 0.25	per each	$ 62.50
Printing, B&W 11 x 17	100	each	@	$ 0.15	per each	$ 15.00
Printing, Color 11 x 17	50	each	@	$ 0.50	per each	$ 25.00
Per Diem, with Overnight Stay	10	days	@	$ 55.00	per day	$ 550.00
Lodging	10	nights	@	$ 108.00	per night	$ 1,080.00
Public Meeting Venue Rental	1	each	@	$ 500.00	per each	$ 500.00
Public Meeting Boards	5	each	@	$ 100.00	per each	$ 500.00
Tidewater Atlantic	1	LS	@	$ 12,413.24	per LS	$ 12,413.24
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 15,523.24 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,182.29	
yes	Bihl	$ 2,650.47	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ 7,500.00	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 3,346.84	

Task Totals for Subconsultant Involvement $ 19,679.60 (G)

Fee Summary for Task

A	Direct Labor	$ 62,262.60
B	Overhead [A x 1.5081]	$ 93,898.21
C	Profit [(A+B) x 0.1]	$ 15,616.09
D	FCCM [A x 0.0057]	$ 354.90
E	Labor Total	$ 172,131.80
F	Non-salary Direct Expenses	$ 15,523.24
G	Subconsultant Fees	$ 19,679.60
	Task Total	$ 207,334.64

$207,334.64

Task 05: Roadway and Path Design

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	Transportation Engineer	Jr Transportation Engineer/EIT	Engineering Technician	-	-	-	-	-	Manhour Totals
Manhour Totals by Classification	14	58	76	144	40						**332**

Sub-task												
5.1 Conceptual Plans												
5.1.1 Detailed Design Criteria		4		8							12	3.6%
5.1.2 Conceptual Plans	4	16	24	40	16						100	30.1%
5.1.3 Conceptual Cost Estimates	2	4	8	16							30	9.0%
5.2 Preliminary Road/Path Plans												
5.2.1 Preparation of Preliminary Plans	4	16	24	40	16						100	30.1%
5.2.2 Preliminary Cost Estimate	2	4	8	16							30	9.0%
5.2.3 DFR		8									8	2.4%
5.2.4 Comment Response/Revision	2	4	12	16	8						42	12.7%
5.2.5 Preliminary ROW/Environmental impacts		2		8							10	3.0%
5.2.6 Design Exceptions												

Task 05: Roadway and Path Design

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
5.1 Conceptual Plans		
5.1.1 Detailed Design Criteria	12	
5.1.2 Conceptual Plans	100	Scroll plots of 2 alternatives
5.1.3 Conceptual Cost Estimates	30	2 alternatives
5.2 Preliminary Road/Path Plans		
5.2.1 Preparation of Preliminary Plans	100	HDR performing design of path from West Ashley to Lockwood - Stantec designing intersections
5.2.2 Preliminary Cost Estimate	30	Preferred alternative
5.2.3 DFR	8	1 attendee
5.2.4 Comment Response/Revision	42	
5.2.5 Preliminary ROW/Environmental impacts	10	
5.2.6 Design Exceptions		Hours for design exceptions included in Stantec fee

Task 05: Roadway and Path Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	14	$ 69.48	$ 972.72	$ 1,466.96	$ 243.97	$ 5.54	$ 2,689.19
Sr Transportation Engineer	58	$ 63.41	$ 3,677.78	$ 5,546.46	$ 922.42	$ 20.96	$ 10,167.62
Transportation Engineer	76	$ 37.99	$ 2,887.24	$ 4,354.25	$ 724.15	$ 16.46	$ 7,982.10
Jr Transportation Engineer/EIT	144	$ 31.32	$ 4,510.08	$ 6,801.65	$ 1,131.17	$ 25.71	$ 12,468.61
Engineering Technician	40	$ 36.15	$ 1,446.00	$ 2,180.71	$ 362.67	$ 8.24	$ 3,997.62
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	332		$ 13,493.82 (A)	$ 20,350.03 (B)	$ 3,384.38 (C)	$ 76.91 (D)	$ 37,305.14 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11		each	@	$ 0.08	per each	$ -
Printing, Color 8.5 x 11		each	@	$ 0.25	per each	$ -
Printing, B&W 11 x 17	250	each	@	$ 0.15	per each	$ 37.50
Printing, Color 11 x 17	100	each	@	$ 0.50	per each	$ 50.00
Per Diem, with Overnight Stay	1	days	@	$ 55.00	per day	$ 55.00
Lodging	1	nights	@	$ 108.00	per night	$ 108.00
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 394.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 11,553.06	
yes	Bihl	$ -	
yes	Atlantic South	$ 10,872.69	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ 76,109.31	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 98,535.06 (G)	

Fee Summary for Task

A	Direct Labor		$ 13,493.82
B	Overhead	[A x 1.5081]	$ 20,350.03
C	Profit	[(A+B) x 0.1]	$ 3,384.38
D	FCCM	[A x 0.0057]	$ 76.91
E	Labor Total		$ 37,305.14
F	Non-salary Direct Expenses		$ 394.25
G	Subconsultant Fees		$ 98,535.06
		Task Total	$ 136,234.45

$136,234.45

Task 06: Structural Design

Manhours

Staff Classification	Project Manager	Sr Structural Engineer	Structural Engineer	Jr Structural Engineer/EIT	Sr Electrical Engineer	Electrical Engineer	Sr Mechanical Engineer	Mechanical Engineer	Structural Engineering Technician	Sr Architect	Manhour Totals	
Manhour Totals by Classification	24	120	236	184	28	36	28	36	128	36	**856**	
Sub-task												
6.1.1 Preliminary Design Criteria	4	8	8		4		4			8	36	4.2%
6.1.2 Design Field Review		8									8	0.9%
6.1.3 Analyze Bridge Alternatives	4	24	96	56	8	12	8	12			220	25.7%
6.1.4 Alternatives Report (Prelim & Final)	8	56	108	96	16	24	16	24	64	12	424	49.5%
6.20 Conceptual Aesthetics	8	24	24	32					64	16	168	19.6%

Task 06: Structural Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
6.1.1	Preliminary Design Criteria	36	Movable Span
6.1.2	Design Field Review	8	Two attendees
6.1.3	Analyze Bridge Alternatives	220	2 alts - fixed and movable
6.1.4	Alternatives Report (Prelim & Final)	424	2 alts - fixed and movable
6.20	Conceptual Aesthetics	168	2 alts - fixed and movable

Task 06: Structural Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	24	$ 69.48	$ 1,667.52	$ 2,514.79	$ 418.23	$ 9.50	$ 4,610.04
Sr Structural Engineer	120	$ 81.11	$ 9,733.20	$ 14,678.64	$ 2,441.18	$ 55.48	$ 26,908.50
Structural Engineer	236	$ 59.00	$ 13,924.00	$ 20,998.78	$ 3,492.28	$ 79.37	$ 38,494.43
Jr Structural Engineer/EIT	184	$ 36.39	$ 6,695.76	$ 10,097.88	$ 1,679.36	$ 38.17	$ 18,511.17
Sr Electrical Engineer	28	$ 75.62	$ 2,117.36	$ 3,193.19	$ 531.06	$ 12.07	$ 5,853.68
Electrical Engineer	36	$ 48.35	$ 1,740.60	$ 2,625.00	$ 436.56	$ 9.92	$ 4,812.08
Sr Mechanical Engineer	28	$ 79.41	$ 2,223.48	$ 3,353.23	$ 557.67	$ 12.67	$ 6,147.05
Mechanical Engineer	36	$ 47.40	$ 1,706.40	$ 2,573.42	$ 427.98	$ 9.73	$ 4,717.53
Structural Engineering Technician	128	$ 40.00	$ 5,120.00	$ 7,721.47	$ 1,284.15	$ 29.18	$ 14,154.80
Sr Architect	36	$ 70.00	$ 2,520.00	$ 3,800.41	$ 632.04	$ 14.36	$ 6,966.81
Task Totals for Labor	856		$ 47,448.32 (A)	$ 71,556.81 (B)	$ 11,900.51 (C)	$ 270.45 (D)	$ 131,176.09 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11	200	each	@	$ 0.08	per each	$ 16.00
Printing, Color 8.5 x 11	100	each	@	$ 0.25	per each	$ 25.00
Printing, B&W 11 x 17	150	each	@	$ 0.15	per each	$ 22.50
Printing, Color 11 x 17	75	each	@	$ 0.50	per each	$ 37.50
Per Diem, with Overnight Stay	10	days	@	$ 55.00	per day	$ 550.00
Lodging	10	nights	@	$ 108.00	per night	$ 1,080.00
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 2,018.50 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 47,448.32
B	Overhead [A x 1.5081]	$ 71,556.81
C	Profit [(A+B) x 0.1]	$ 11,900.51
D	FCCM [A x 0.0057]	$ 270.45
E	Labor Total	$ 131,176.09
F	Non-salary Direct Expenses	$ 2,018.50
G	Subconsultant Fees	$ -
	Task Total	$ 133,194.59

$133,194.59

Task 07: Hydrology and Hydraulic Design

Manhours

Staff Classification	Project Manager	Sr Hydraulic Engineer	Hydraulic Engineer	Jr Hydraulic Engineer/EIT	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification	6	80	172	116							374	
Sub-task												
7.10 Roadway drainage design report (Stantec)												
7.20 **Bridge hydraulics report**												
7.2.1 Hydrologic and Hydraulic Analysis		28	44	44							116	31.0%
7.2.2 ADCIRC Modeling		16	56	32							104	27.8%
7.2.3 Determination of Wave Heights		8	20	20							48	12.8%
7.2.4 Hydraulic Design and Risk Assessment Report	2	16	32								50	13.4%
7.2.5 Bridge Hydraulics Report	4	12	20	20							56	15.0%

Task 07: Hydrology and Hydraulic Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
7.10	Roadway drainage design report (Stantec)		Performed by Stantec
7.20	**Bridge hydraulics report**		
7.2.1	Hydrologic and Hydraulic Analysis	116	
7.2.2	ADCIRC Modeling	104	
7.2.3	Determination of Wave Heights	48	
7.2.4	Hydraulic Design and Risk Assessment Report	50	
7.2.5	Bridge Hydraulics Report	56	

Task 07: Hydrology and Hydraulic Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	6	$ 69.48	$ 416.88	$ 628.70	$ 104.56	$ 2.38	$ 1,152.52
Sr Hydraulic Engineer	80	$ 68.00	$ 5,440.00	$ 8,204.06	$ 1,364.41	$ 31.01	$ 15,039.48
Hydraulic Engineer	172	$ 55.00	$ 9,460.00	$ 14,266.63	$ 2,372.66	$ 53.92	$ 26,153.21
Jr Hydraulic Engineer/EIT	116	$ 35.00	$ 4,060.00	$ 6,122.89	$ 1,018.29	$ 23.14	$ 11,224.32
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	374		$ 19,376.88 (A)	$ 29,222.28 (B)	$ 4,859.92 (C)	$ 110.45 (D)	$ 53,569.53 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	250	miles	@	$ 0.575	per mile	$ 143.75
Shipping, Standard	1	shipments	@	$ 10.00	per shipment	$ 10.00
Printing, B&W 8.5 x 11	100	each	@	$ 0.08	per each	$ 8.00
Printing, Color 8.5 x 11	50	each	@	$ 0.25	per each	$ 12.50
Printing, B&W 11 x 17	50	each	@	$ 0.15	per each	$ 7.50
Printing, Color 11 x 17	25	each	@	$ 0.50	per each	$ 12.50
Per Diem, with Overnight Stay	1	days	@	$ 55.00	per day	$ 55.00
Lodging	1	nights	@	$ 108.00	per night	$ 108.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 357.25 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ 20,775.59	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ 20,775.59 (G)

Fee Summary for Task

A	Direct Labor		$ 19,376.88
B	Overhead [A x 1.5081]		$ 29,222.28
C	Profit [(A+B) x 0.1]		$ 4,859.92
D	FCCM [A x 0.0057]		$ 110.45
E	Labor Total		$ 53,569.53
F	Non-salary Direct Expenses		$ 357.25
G	Subconsultant Fees		$ 20,775.59
		Task Total	$ 74,702.37

$74,702.37

Task 08: Geotechnical Services and Pavement Design

Manhours

Staff Classification	Project Manager	Sr Geotechnical Engineer	Geotechnical Engineer	Jr Geotechnical Engineer/EIT	Project Geologist	Engineering Technician	Administrative Assistant	,	,	,	Manhour Totals	
Manhour Totals by Classification	5	186	88	184	180	68					**711**	
Sub-task												
8.10 Geotechnical Field Exploration	1	16			160	4					181	25.5%
8.30 Laboratory Testing	1	8	8	16							33	4.6%
8.40 Preliminary Geotechnical Baseline Report	1	36	48	48	4	40					177	24.9%
8.50 Preliminary Geotechnical Seismic Characterization	1	24	24	32							81	11.4%
8.60 Site-Specific Seismic Response Analysis Study	1	102	8	88	16	24					239	33.6%

Estimate for this task prepared by L. Leon

Task 08: Geotechnical Services and Pavement Design

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
8.10	Geotechnical Field Exploration	181	
8.30	Laboratory Testing	33	
8.40	Preliminary Geotechnical Baseline Report	177	
8.50	Preliminary Geotechnical Seismic Characterization	81	
8.60	Site-Specific Seismic Response Analysis Study	239	

Estimate for this task prepared by L. Leon

Task 08: Geotechnical Services and Pavement Design

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager	5	$ 69.48	$ 347.40	$ 523.91	$ 87.13	$ 1.98	$ 960.42
Sr Geotechnical Engineer	186	$ 68.80	$ 12,796.80	$ 19,298.85	$ 3,209.57	$ 72.94	$ 35,378.16
Geotechnical Engineer	88	$ 47.46	$ 4,176.48	$ 6,298.55	$ 1,047.50	$ 23.81	$ 11,546.34
Jr Geotechnical Engineer/EIT	184	$ 32.09	$ 5,904.56	$ 8,904.67	$ 1,480.92	$ 33.66	$ 16,323.81
Project Geologist	180	$ 40.89	$ 7,360.20	$ 11,099.92	$ 1,846.01	$ 41.95	$ 20,348.08
Engineering Technician	68	$ 36.15	$ 2,458.20	$ 3,707.21	$ 616.54	$ 14.01	$ 6,795.96
Administrative Assistant		$ 36.78	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	711		$ 33,043.64 (A)	$ 49,833.11 (B)	$ 8,287.67 (C)	$ 188.35 (D)	$ 91,352.77 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay	18	days	@	$ 55.00	per day	$ 990.00
Lodging	18	nights	@	$ 108.00	per night	$ 1,944.00
Mileage	1,200	miles	@	$ 0.575	per mile	$ 690.00
Per Diem, without Overnight Stay	2	days	@	$ 40.00	per day	$ 80.00
Pyramid (2D MASW Testing)	1	LS	@	$ 7,117.00	per LS	$ 7,117.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 10,821.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ 160,000.00	
yes	Soil Consultants	$ 45,405.00	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 205,405.00 (G)	

Fee Summary for Task

A	Direct Labor	$ 33,043.64
B	Overhead [A x 1.5081]	$ 49,833.11
C	Profit [(A+B) x 0.1]	$ 8,287.67
D	FCCM [A x 0.0057]	$ 188.35
E	Labor Total	$ 91,352.77
F	Non-salary Direct Expenses	$ 10,821.00
G	Subconsultant Fees	$ 205,405.00
	Task Total	$ 307,578.77

$307,578.77

Estimate for this task prepared by L. Leon

Task 09: Utility Coordination

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification											
Sub-task											
9.10 Utility Coordination											
9.20 Preliminary Utility Coordination											
9.30 Constructability Review Meeting											

Task 09: Utility Coordination

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
9.10	Utility Coordination		Coordination hours included in Task 1
9.20	Preliminary Utility Coordination		
9.30	Constructability Review Meeting		

Task 09: Utility Coordination

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager		$ 69.48	$ -	$ -	$ -	$ -	$ -
Sr Transportation Engineer		$ 63.41	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ 35,339.35	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 35,339.35 (G)	

Fee Summary for Task

A	Direct Labor	$	-
B	Overhead [A x 1.5081]	$	-
C	Profit [(A+B) x 0.1]	$	-
D	FCCM [A x 0.0057]	$	-
E	Labor Total	$	-
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	35,339.35
	Task Total	$	35,339.35

$35,339.35

Task 10: Subsurface Utility Engineering

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification											
Sub-task											
10.10 SUE Work											
10.20 Designating Services											

Task 10: Subsurface Utility Engineering

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
10.10 SUE Work		Coordination hours included in Task 1
10.20 Designating Services		

Task 10: Subsurface Utility Engineering

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Project Manager		$ 69.48	$ -	$ -	$ -	$ -	$ -
Sr Transportation Engineer		$ 63.41	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ 50,820.00	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	
Task Totals for Subconsultant Involvement		$ 50,820.00 (G)	

Fee Summary for Task

A	Direct Labor	$	-
B	Overhead [A x 1.5081]	$	-
C	Profit [(A+B) x 0.1]	$	-
D	FCCM [A x 0.0057]	$	-
E	Labor Total	$	-
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	50,820.00
	Task Total	$	50,820.00

$50,820.00

Task 11: Right of Way

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification	16	64									80

Sub-task												
Right of Way												
Evaluation of Marina Operations	16	64									80	100.0%

Task 11: Right of Way

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
Right of Way		Coordination hours included in task 1
Evaluation of Marina Operations	80	one day site visit by 2 staff, development of 4 recommendatiosn and memo

Task 11: Right of Way

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150 81%	Profit 10 00%	FCCM 0 57%	Labor Total
Project Manager	16	$ 69 48	$ 1,111 68	$ 1,676 52	$ 278 82	$ 6.34	$ 3,073 36
Sr Transportation Engineer	64	$ 63 41	$ 4,058 24	$ 6,120 23	$ 1,017 85	$ 23 13	$ 11,219 45
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	80		$ 5,169.92 (A)	$ 7,796.75 (B)	$ 1,296.67 (C)	$ 29.47 (D)	$ 14,292.81 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	400	miles	@	$ 0.575	per mile	$ 230.00
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8 5 x 11	20	each	@	$ 0.08	per each	$ 1.60
Printing, Color 8 5 x 11	20	each	@	$ 0.25	per each	$ 5 00
Printing, B&W 11 x 17	10	each	@	$ 0.15	per each	$ 1.50
Printing, Color 11 x 17	10	each	@	$ 0.50	per each	$ 5 00
Per Diem, with Overnight Stay	2	days	@	$ 55.00	per day	$ 110.00
Lodging	2	nights	@	$ 108 00	per night	$ 216 00
PAN	1	LS	@	$ 64,000.00	per LS	$ 64,000 00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 64,569.10 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ -	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor		$ 5,169.92
B	Overhead [A x 1.5081]		$ 7,796.75
C	Profit [(A+B) x 0.1]		$ 1,296.67
D	FCCM [A x 0.0057]		$ 29.47
E	Labor Total		$ 14,292.81
F	Non-salary Direct Expenses		$ 64,569.10
G	Subconsultant Fees		$ -
		Task Total	$ 78,861.91

$78,861.91

Task 12: Development of RFQ and RFP

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Sr Mechanical Engineer	Sr Electrical Engineer	Sr Architect	Manhour Totals	
Manhour Totals by Classification	6	64	18	38	8	20	12	12	12	12	**202**	
Sub-task												
12.10 Development of the RFQ	2	16	8	8							34	16.8%
12.20 Development of the RFP for Industry Review, Final RFP an	4	48	10	30	8	20	12	12	12	12	168	83.2%

Task 12: Development of RFQ and RFP

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
12.10	Development of the RFQ	34	
12.20	Development of the RFP for Industry Review, Final RFP and Addenda	168	

Task 12: Development of RFQ and RFP

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	6	$ 93.63	$ 561.78	$ 847.22	$ 140.90	$ 3.20	$ 1,553.10
Project Manager	64	$ 69.48	$ 4,446.72	$ 6,706.10	$ 1,115.28	$ 25.35	$ 12,293.45
Sr. Transportation Engineer	18	$ 63.41	$ 1,141.38	$ 1,721.32	$ 286.27	$ 6.51	$ 3,155.48
Sr Structural Engineer	38	$ 81.11	$ 3,082.18	$ 4,648.24	$ 773.04	$ 17.57	$ 8,521.03
Sr. Hydraulic Engineer	8	$ 68.00	$ 544.00	$ 820.41	$ 136.44	$ 3.10	$ 1,503.95
Sr Geotechnical Engineer	20	$ 68.80	$ 1,376.00	$ 2,075.15	$ 345.12	$ 7.84	$ 3,804.11
Sr. Environmental Specialist	12	$ 69.70	$ 836.40	$ 1,261.37	$ 209.78	$ 4.77	$ 2,312.32
Sr Mechanical Engineer	12	$ 79.41	$ 952.92	$ 1,437.10	$ 239.00	$ 5.43	$ 2,634.45
Sr. Electrical Engineer	12	$ 75.62	$ 907.44	$ 1,368.51	$ 227.60	$ 5.17	$ 2,508.72
Sr Architect	12	$ 70.00	$ 840.00	$ 1,266.80	$ 210.68	$ 4.79	$ 2,322.27
Task Totals for Labor	**202**		**$ 14,688.82 (A)**	**$ 22,152.22 (B)**	**$ 3,684.11 (C)**	**$ 83.73 (D)**	**$ 40,608.88 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	500	miles	@	$ 0.575	per mile	$ 287.50
Shipping, Standard		shipments	@	$ 10.00	per shipment	$ -
Printing, B&W 8.5 x 11	1,000	each	@	$ 0.08	per each	$ 80.00
Printing, Color 8.5 x 11		each	@	$ 0.25	per each	$ -
Printing, B&W 11 x 17	100	each	@	$ 0.15	per each	$ 15.00
Printing, Color 11 x 17		each	@	$ 0.50	per each	$ -
Per Diem, with Overnight Stay	2	days	@	$ 55.00	per day	$ 110.00
Lodging	2	nights	@	$ 108.00	per night	$ 216.00
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
-	-	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 708.50 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,761.93	
yes	Bihl	$ 8,060.87	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 88,278.31	

Task Totals for Subconsultant Involvement $ 103,101.11 (G)

Fee Summary for Task

A	**Direct Labor**		$ 14,688.82
B	**Overhead**	[A x 1.5081]	$ 22,152.22
C	**Profit**	[(A+B) x 0.1]	$ 3,684.11
D	**FCCM**	[A x 0.0057]	$ 83.73
E	**Labor Total**		$ 40,608.88
F	**Non-salary Direct Expenses**		$ 708.50
G	**Subconsultant Fees**		$ 103,101.11
		Task Total	$ 144,418.49

$144,418.49

Task 13: Procurement

Manhours

Staff Classification	Principal	Project Manager	Sr Transportation Engineer	Sr Structural Engineer	Sr Hydraulic Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Sr Mechanical Engineer	Sr Electrical Engineer	Sr Architect	Manhour Totals	
Manhour Totals by Classification	8	120	56	96	12	12	28	20	20	12	**384**	
Sub-task												
13.10 Respond to RFP Questions	2	40	12	24	6	6	6	6	6	6	114	29.7%
13.20 Technical Assistance During Review of ATCs	2	40	12	24	6	6	6	6	6	6	114	29.7%
13.30 Review Technical Proposal		16	16	16			16				64	16.7%
13.40 Review and Analysis of Bid Packages		8	8	16				8	8		48	12.5%
13.50 Evaluation of Proposals	4	16	8	16							44	11.5%

Task 13: Procurement

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
13.10	Respond to RFP Questions	114	Assume 120 questions (40 from each short listed team)
13.20	Technical Assistance During Review of ATCs	114	30 ATC's - 10 from each short listed team
13.30	Review Technical Proposal	64	Review of 3 sets of plans from short listed teams
13.40	Review and Analysis of Bid Packages	48	Review of 3 bid packages
13.50	Evaluation of Proposals	44	Assume 3 proposals to evaluate

Task 13: Procurement

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.81%	Profit 10.00%	FCCM 0.57%	Labor Total
Principal	8	$ 93.63	$ 749.04	$ 1,129.63	$ 187.87	$ 4.27	$ 2,070.81
Project Manager	120	$ 69.48	$ 8,337.60	$ 12,573.93	$ 2,091.15	$ 47.52	$ 23,050.20
Sr. Transportation Engineer	56	$ 63.41	$ 3,550.96	$ 5,355.20	$ 890.62	$ 20.24	$ 9,817.02
Sr Structural Engineer	96	$ 81.11	$ 7,786.56	$ 11,742.91	$ 1,952.95	$ 44.38	$ 21,526.80
Sr. Hydraulic Engineer	12	$ 68.00	$ 816.00	$ 1,230.61	$ 204.66	$ 4.65	$ 2,255.92
Sr Geotechnical Engineer	12	$ 68.80	$ 825.60	$ 1,245.09	$ 207.07	$ 4.71	$ 2,282.47
Sr. Environmental Specialist	28	$ 69.70	$ 1,951.60	$ 2,943.21	$ 489.48	$ 11.12	$ 5,395.41
Sr Mechanical Engineer	20	$ 79.41	$ 1,588.20	$ 2,395.16	$ 398.34	$ 9.05	$ 4,390.75
Sr. Electrical Engineer	20	$ 75.62	$ 1,512.40	$ 2,280.85	$ 379.33	$ 8.62	$ 4,181.20
Sr Architect	12	$ 70.00	$ 840.00	$ 1,266.80	$ 210.68	$ 4.79	$ 2,322.27
Task Totals for Labor	**384**		**$ 27,957.96 (A)**	**$ 42,163.39 (B)**	**$ 7,012.15 (C)**	**$ 159.35 (D)**	**$ 77,292.85 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - **(F)**

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 6,761.93	
yes	Bihl	$ -	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 38,983.29	
Task Totals for Subconsultant Involvement		**$ 45,745.22 (G)**	

Fee Summary for Task

A	Direct Labor	$ 27,957.96
B	Overhead [A x 1.5081]	$ 42,163.39
C	Profit [(A+B) x 0.1]	$ 7,012.15
D	FCCM [A x 0.0057]	$ 159.35
E	Labor Total	$ 77,292.85
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 45,745.22
	Task Total	$ 123,038.07

$123,038.07

Task 14: Design Plan Review and Administration

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	Transportation Engineer	Sr Hydraulic Engineer	Hydraulic Engineer	Sr Structural Engineer	Sr Electrical Engineer	Sr Mechanical Engineer	Sr Geotechnical Engineer	Sr Environmental Specialist	Manhour Totals	
Manhour Totals by Classification	260	140	180	80	120	540	100	100	320	40	**1880**	
Sub-task												
14.10 Project Organization and Management Responsibilities	260										260	13.8%
14.20 Roadway/Path Design Review Responsibilities		100	100							8	208	11.1%
14.30 Structural Design Review Responsibilities						340				8	348	18.5%
14.40 Movable Span Structure, Mechanical, Electrical&Facilities						200	100	100		8	408	21.7%
14.50 Hydaulic Design Review Responsibilities				80	120					8	208	11.1%
14.60 Geotechnical Design Review Responsibilites									320	8	328	17.4%
14.70 Traffic Engineering Review Responsibilities		40	80								120	6.4%

Task 14: Design Plan Review and Administration

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
14.10	Project Organization and Management Responsibilities	260	
14.20	Roadway/Path Design Review Responsibilities	208	
14.30	Structural Design Review Responsibilities	348	
14.40	Movable Span Structure, Mechanical, Electrical&Facilities Design Rev	408	
14.50	Hydaulic Design Review Responsibilities	208	
14.60	Geotechnical Design Review Responsibilties	328	
14.70	Traffic Engineering Review Responsibilties	120	

Task 14: Design Plan Review and Administration

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150 81%	Profit 10 00%	FCCM 0 57%	Labor Total
Project Manager	260	$ 69.48	$ 18,064.80	$ 27,243.52	$ 4,530.83	$ 102.97	$ 49,942.12
Sr. Transportation Engineer	140	$ 63.41	$ 8,877.40	$ 13,388.01	$ 2,226.54	$ 50.60	$ 24,542.55
Transportation Engineer	180	$ 37.99	$ 6,838.20	$ 10,312.69	$ 1,715.09	$ 38.98	$ 18,904.96
Sr. Hydraulic Engineer	80	$ 68.00	$ 5,440.00	$ 8,204.06	$ 1,364.41	$ 31.01	$ 15,039.48
Hydraulic Engineer	120	$ 55.00	$ 6,600.00	$ 9,953.46	$ 1,655.35	$ 37.62	$ 18,246.43
Sr. Structural Engineer	540	$ 81.11	$ 43,799.40	$ 66,053.88	$ 10,985.33	$ 249.66	$ 121,088.27
Sr. Electrical Engineer	100	$ 75.62	$ 7,562.00	$ 11,404.25	$ 1,896.63	$ 43.10	$ 20,905.98
Sr. Mechanical Engineer	100	$ 79.41	$ 7,941.00	$ 11,975.82	$ 1,991.68	$ 45.26	$ 21,953.76
Sr. Geotechnical Engineer	320	$ 68.80	$ 22,016.00	$ 33,202.33	$ 5,521.83	$ 125.49	$ 60,865.65
Sr. Environmental Specialist	40	$ 69.70	$ 2,788.00	$ 4,204.58	$ 699.26	$ 15.89	$ 7,707.73
Task Totals for Labor	**1880**		**$ 129,926.80 (A)**	**$ 195,942.60 (B)**	**$ 32,586.95 (C)**	**$ 740.58 (D)**	**$ 359,196.93 (E)**

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost	Total Cost
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
-		-	@	$ -	$ -
					$ -
					$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
	Alta	$ 13,075.80	
yes	Bihl	$ 24,761.17	
yes	Atlantic South	$ -	
yes	Cornerstone	$ -	
	McKim & Creed	$ -	
	Stantec	$ -	
yes	DESA	$ -	
yes	Mid Atlantic Drilling	$ -	
yes	Soil Consultants	$ -	
yes	Providence Engineering Consultants	$ 15,864.20	

Task Totals for Subconsultant Involvement $ 53,701.17 (G)

Fee Summary for Task

A	Direct Labor	$ 129,926.80
B	Overhead [A x 1.5081]	$ 195,942.60
C	Profit [(A+B) x 0.1]	$ 32,586.95
D	FCCM [A x 0.0057]	$ 740.58
E	Labor Total	$ 359,196.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ 53,701.17
	Task Total	$ 412,898.10

$412,898.10

Alta Planning & Design

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract.

4.1. Environmental Analysis, Documentation, and Review

4.1.1. Non-Programmatic Categorical Exclusion Document*

In consultation with the Federal Highway Administration, the SCDOT has determined that the project can be processed as a Non-Programmatic Categorical Exclusion. The CONSULTANT shall be responsible for the preparation of a Non-Programmatic Categorical Exclusion that 1) quantifies the impacts of a conceptual alternative* and 2) identifies environmental constraints for a design build contractor using the defined NEPA Study Area.*

1. Purpose and Need - CONSULTANT will outline background that led to initiation of proposed action. A description of the need for the action, along with specific components (i.e. goals, objectives, benefits to be gained by the public, etc.) will be included.
2. Proposed Facility - CONSULTANT will prepare description of proposed the roadway facility/improvements, anticipated LOS, logical termini, etc.
4. Alternatives - CONSULTANT will complete an alternatives analysis, including a discussion of all alternatives considered and a detailed discussion of reasonable alternatives considered and basis of elimination.

Deliverables:

- Word documents as needed for inclusion in CE documentation.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition; SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition and;

- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. The CONSULTANT shall review conceptual plans for the alternatives to provide feedback on bike-ped improvements at each location. Improvement locations include:*

- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road
- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway
- Alternatives for the Greenway to traverse from its current termini at Albemarle/Croghan Spur to the proposed path behind the condominiums on the southeast corner of Folly/Albemarle intersection.
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection
- Alternatives for a bridge across the Ashley River and connections to existing pathways or intersections

5.2. Preliminary Road/Path Design

5.2.1. The CONSULTANT shall review 30% plans for the selected alternative at each improvement location to provide feedback on bike-ped improvements at each location.

5.3. Deliverables

- One (1) electronic PDF of review of conceptual plans.
- One (1) electronic PDF of review of 30% plans.

12. SUPPORT DURING DEVELOPMENT OF THE RFQ/RFP

12.1. CONSULTANT shall provide support, as needed, for the following tasks while the CITY is developing the Design-Build RFQ and RFP:

- Develop project Risk Matrix and categorize project risks as High, Moderate, and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies.*
- Develop Project Design Criteria for each discipline for the RFP.*
  - Roadway
  - Traffic
- Provide assistance with Development of project-specific special provisions.*

13. SUPPORT DURING PROCUREMENT

13.1. CONSULTANT shall provide support, as needed, for the following tasks during the procurement of the design-build project:

- Provide assistance to respond to the RFP for Industry Review and Final RFP questions and clarifications.*
- Provide technical assistance during reviews of ATCs.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor, and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

14.1 Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on five (5) Requests for Information
ii.
iii.
iv. Review and provide recommendations on one (1) Technical Special Provisions
v.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that one (1) design modification will be initiated.*

D. Meetings *

i. Attend ten (10) two-hour Design Coordination Meetings

14.2 Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for both of the two (2) plan submittals noted in the Anticipated Project Segmentation and Submittal Section:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *

E. Additional reviews are anticipated on the following miscellaneous submittals: *

vi. Review and provide recommendations on five (5) Requests for Information

vii. Review and provide recommendations on one (1) Technical Special Provisions

F. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that one (1) design modification will be initiated.*

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description		Labor	Directs	Subs	Total	
04	Environmental Services		$ 6,182.29	$ -	$ -	$ 6,182.29	13.9%
05	Roadway & Path Design		$ 11,553.06	$ -	$ -	$ 11,553.06	26.1%
12	Support During Development of RFQ/RFP		$ 6,761.93	$ -	$ -	$ 6,761.93	15.3%
13	Support During Procurement		$ 6,761.93	$ -	$ -	$ 6,761.93	15.3%
15	Roadway & Path Design Review		$ 13,075.80	$ -	$ -	$ 13,075.80	29.5%
		Totals	$ 44,335.01	$ -	$ -	$ 44,335.01	

Alta Planning + Design, Inc.

Task	Task Description		Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
04	Environmental Services		$ 1,945.40	$ 3,674.86	$ 562.03	$ -	$ 6,182.29	$ -	$ 6,182.29
05	Roadway & Path Design		$ 3,635.44	$ 6,867.34	$ 1,050.28	$ -	$ 11,553.06	$ -	$ 11,553.06
12	Support During Development of RFQ/RFP		$ 2,127.80	$ 4,019.41	$ 614.72	$ -	$ 6,761.93	$ -	$ 6,761.93
13	Support During Procurement		$ 2,127.80	$ 4,019.41	$ 614.72	$ -	$ 6,761.93	$ -	$ 6,761.93
15	Roadway & Path Design Review		$ 4,114.60	$ 7,772.49	$ 1,188.71	$ -	$ 13,075.80	$ -	$ 13,075.80
		Totals	$ 13,951.04	$ 26,353.51	$ 4,030.46	$ -	$ 44,335.01	$ -	$ 44,335.01
			(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Alta Planning + Design, Inc.	$ 44,335.01		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $44,335.01		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	13,951.04
B - Overhead [A x 1.889]	$	26,353.51
C - Profit [(A+B) x 0.1]	$	4,030.46
D - FCCM [A x 0]	$	-
E - Labor Total	$	44,335.01
F - Total Non-Salary Direct Expenses	$	-
G - Subconsultant Fees	$	-
Fee Total	$	44,335.01

fee total less profit $40,304.55

Prepared by: _____

04

Task 04: Environmental Services

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer								Manhour Totals
Manhour Totals by Classification	4	8			40	12									64
Sub-task															
4.1.1 Non Programmatic Categorical Exclusion Document	4	8			40	12									64
Purpose and Need															
Proposed Facility															
Alternatives															

	100.0%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1.1 Non Programmatic Categorical Exclusion Document	64	
Purpose and Need		
Proposed Facility		
Alternatives		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (185.00%)	Profit (10.00%)	FCCM	Labor Total
Principal	4	$ 63.87	$ 255.48	$ 482.60	$ 73.81	$ -	$ 811.89
Project Manager	8	$ 35.67	$ 285.36	$ 539.05	$ 82.44	$ -	$ 906.85
Sr. Traffic Engineer		$ 68.72	$ -	$ -	$ -	$ -	$ -
Sr. Transportation Planner		$ 44.52	$ -	$ -	$ -	$ -	$ -
Jr. Transportation Planner	40	$ 26.00	$ 1,040.00	$ 1,964.56	$ 300.46	$ -	$ 3,305.02
Transportation Planner	12	$ 30.38	$ 364.56	$ 688.65	$ 105.32	$ -	$ 1,158.53
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	64		$ 1,945.40 (A)	$ 3,674.86 (B)	$ 562.03 (C)	$ - (D)	$ 6,182.29 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 1,945.40
B	Overhead [A x 1.889]	$ 3,674.86
C	Profit [(A+B) x 0.1]	$ 562.03
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,182.29
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,182.29

$6,182.29

05

Task 05: Roadway & Path Design

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer									Manhour Totals
Manhour Totals by Classification	20	20	6	16	20											82
Sub-task																
5.10 Conceptual Plans	20	20	6	16	20											82 100.0%
5.1.1 Review of conceptual plans																
5.20 Preliminary Road																
5.2.1 Review of preliminary plans																

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
5.10 Conceptual Plans	82	
5.1.1 Review of conceptual plans		
5.20 Preliminary Road		
5.2.1 Review of preliminary plans		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (188.9%)	Profit (10.00%)	FCCM	Labor Total
Principal	20	$ 63.87	$ 1,277.40	$ 2,413.01	$ 369.04	$ -	$ 4,059.45
Project Manager	20	$ 35.67	$ 713.40	$ 1,347.61	$ 206.10	$ -	$ 2,267.11
Sr. Traffic Engineer	6	$ 68.72	$ 412.32	$ 778.87	$ 119.12	$ -	$ 1,310.31
Sr. Transportation Planner	16	$ 44.52	$ 712.32	$ 1,345.57	$ 205.79	$ -	$ 2,263.68
Jr. Transportation Planner	20	$ 26.00	$ 520.00	$ 982.28	$ 150.23	$ -	$ 1,652.51
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	82		$ 3,635.44 (A)	$ 6,867.34 (B)	$ 1,050.28 (C)	$ - (D)	$ 11,553.06 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 3,635.44
B	Overhead [A x 1.889]	$ 6,867.34
C	Profit [(A+B) x 0.1]	$ 1,050.28
D	FCCM [A x 0]	$ -
E	Labor Total	$ 11,553.06
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 11,553.06

$11,553.06

12

Task 12: Support During Development of RFQ/RFP

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer								Manhour Totals
Manhour Totals by Classification	10	10	10	10											40

Sub-task																
12.10	Risk Matrix	10	10	10	10										40	100.0%
12.20	Develop Design Criteria															
12.30	Scope of Work															
12.40	Project Specific Special Provisions															

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
12.10	Risk Matrix	40	
12.20	Develop Design Criteria		
12.30	Scope of Work		
12.40	Project Specific Special Provisions		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (188.9%)	Profit (10.0%)	FCCM	Labor Total
Principal	10	$ 63.87	$ 638.70	$ 1,206.50	$ 184.52	$ -	$ 2,029.72
Project Manager	10	$ 35.67	$ 356.70	$ 673.81	$ 103.05	$ -	$ 1,133.56
Sr. Traffic Engineer	10	$ 68.72	$ 687.20	$ 1,298.12	$ 198.53	$ -	$ 2,183.85
Sr. Transportation Planner	10	$ 44.52	$ 445.20	$ 840.98	$ 128.62	$ -	$ 1,414.80
Jr. Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	40		$ 2,127.80 (A)	$ 4,019.41 (B)	$ 614.72 (C)	$ - (D)	$ 6,761.93 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,127.80
B	Overhead [A x 1.889]	$ 4,019.41
C	Profit [(A+B) x 0.1]	$ 614.72
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,761.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,761.93

$6,761.93

13

Task 13: Support During Procurement

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer								Manhour Totals
Manhour Totals by Classification	10	10	10	10											40

Sub-task																
13.10	Respond to RFP Questions	10	10	10	10										40	100.0%
13.20	Technical Assistance During Review of ATCs															

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
13.10	Respond to RFP Questions	40	
13.20	Technical Assistance During Review of ATCs		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (188.90%)	Profit (16.66%)	FCCM	Labor Total
Principal	10	$ 63.87	$ 638.70	$ 1,206.50	$ 184.52	$ -	$ 2,029.72
Project Manager	10	$ 35.67	$ 356.70	$ 673.81	$ 103.05	$ -	$ 1,133.56
Sr. Traffic Engineer	10	$ 68.72	$ 687.20	$ 1,298.12	$ 198.53	$ -	$ 2,183.85
Sr. Transportation Planner	10	$ 44.52	$ 445.20	$ 840.98	$ 128.62	$ -	$ 1,414.80
Jr. Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	40		$ 2,127.80 (A)	$ 4,019.41 (B)	$ 614.72 (C)	$ - (D)	$ 6,761.93 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,127.80
B	Overhead [A x 1.889]	$ 4,019.41
C	Profit [(A+B) x 0.1]	$ 614.72
D	FCCM [A x 0]	$ -
E	Labor Total	$ 6,761.93
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 6,761.93

$6,761.93

15

Task 15: Roadway & Path Design Review

Manhours

Staff Classification	Principal	Project Manager	Sr. Traffic Engineer	Sr. Transportation Planner	Jr. Transportation Planner	Transportation Planner	Traffic Engineer								Manhour Totals
Manhour Totals by Classification	15	25	20	20											80

Sub-task																
A	Roadway Design Reviews	15	25	20	20										80	100.0%
	i. Preliminary Plans															
	ii. ROW Plans															
	iii. Final Plans															
C	Miscellaneous Submittals															
	i. RFIs (5)															
	iv. Technical Special Provisions (1)															
D	Revised Drawings/Contractor Changes (1)															
E	Meetings															
	ii. Design Coordination Meetings (10)															

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
A	Roadway Design Reviews	80	
	i. Preliminary Plans		
	ii. ROW Plans		
	iii. Final Plans		
C	Miscellaneous Submittals		
	i. RFIs (5)		
	iv. Technical Special Provisions (1)		
D	Revised Drawings/Contractor Changes (1)		
E	Meetings		
	ii. Design Coordination Meetings (10)		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (188.90%)	Profit (10.00%)	FCCM	Labor Total
Principal	15	$ 63.87	$ 958.05	$ 1,809.76	$ 276.78	$ -	$ 3,044.59
Project Manager	25	$ 35.67	$ 891.75	$ 1,684.52	$ 257.63	$ -	$ 2,833.90
Sr. Traffic Engineer	20	$ 68.72	$ 1,374.40	$ 2,596.24	$ 397.06	$ -	$ 4,367.70
Sr. Transportation Planner	20	$ 44.52	$ 890.40	$ 1,681.97	$ 257.24	$ -	$ 2,829.61
Jr. Transportation Planner		$ 26.00	$ -	$ -	$ -	$ -	$ -
Transportation Planner		$ 30.38	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ 49.04	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	80		$ 4,114.60 (A)	$ 7,772.49 (B)	$ 1,188.71 (C)	$ - (D)	$ 13,075.80 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
Task Total for Non-salary Direct Expenses				$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 4,114.60
B	Overhead [A x 1.889]	$ 7,772.49
C	Profit [(A+B) x 0.1]	$ 1,188.71
D	FCCM [A x 0]	$ -
E	Labor Total	$ 13,075.80
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 13,075.80

$13,075.80

Atlantic South

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition;
- SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 2004 and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception. Any changes that involve SCDOT maintained roadways or facilities will need SCDOT review and approval. Any design exceptions on SCDOT maintained roadways will need SCDOT review and approval*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Alternatives for connecting West Ashley Greenway along Albemarle Drive.

These conceptual plans will consist primarily of roll plots; typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, cross sections, Existing Right of way, Proposed Right of way. Additional items that maybe needed in the preliminary plans will be included such that enough detail is provided to allow for verification of controlling criteria.*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design

Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.

9. UTILITY COORDINATION

General Responsibilities

The CONSULTANT shall have the responsibility of coordinating the Project development with all utilities that may be affected. All utility relocations shall be handled in accordance with the SCDOT's "A Policy for Accommodating Utilities on Highway Rights of Way" and the Code of Federal Regulations, Title 23, Chapter 1, Subchapter G, part 645, subparts A & B.

These services shall be performed by individuals skilled and experienced in utility coordination services.

The CONSULTANT shall work with designers of the Project to avoid conflicts with utilities and minimize impacts where conflicts cannot be avoided. This may include, but is not limited to, utilizing all available utility data, whether obtained from SUE services, as-built plans, or provided by the SCDOT or some other source. The CONSULTANT will be expected to determine all utility conflict points, including all work to properly analyze each conflict point, and make recommendations for resolution of the conflict.

The utility company shall not begin their relocation work until authorized in writing by the SCDOT.

The CONSULTANT shall prepare and maintain a Utility Conflict Matrix (UCM) in order to track each utility within the project limits during the life of the Project.

Scope of Services

Project tasks below that are identified with an asterisk (*) are tasks which are expected to be assigned man-hours. All estimated direct costs for specific project tasks will require supporting documentation.

9.1. Early Utility Coordination

Project Preliminary Review (*): The CONSULTANT shall coordinate with the SCDOT Program Manager to collect and review available project plans and the proposed scope of construction.

Utility Introduction Letter (*): (Required) The CONSULTANT shall develop a Utility Introduction Letter for each utility company. This letter shall be populated by the CONSULTANT with the utility company's information (to include the company's contact person, mailing address, telephone number and appropriate email address) and electronically sent to the SCDOT State Utility Engineer for signature and mailing.

Utility Record Collection and Review (*): The CONSULTANT shall initiate early coordination with all utility companies that are located within the Project limits. Coordination shall include, but shall not be limited to, contacting each utility company to advise the company of the proposed Project, obtaining copies of as-built plans for the existing utility facilities (if available), perform a review of utility as-built plans and determine the utility company's requirements for the relocation of their facilities.

Site Visit (*): The CONSULTANT shall perform a site visit for a visual inventory of existing utilities within the proposed project limits. If it is determined by the SCDOT that an in-depth SUE mapping investigation will not be performed, the CONSULTANT is encouraged to use the "One Call" design ticket service provided by SC811 prior to their Site Visit.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a preliminary review meeting with the utility companies (if deemed necessary) for the completion of Early Utility Coordination.

SUE Mapping Recommendation (*): The CONSULTANT shall develop a SUE recommendation for the project dependent on the information gathered and the projected level of Utility Coordination expected for the Project as directed by the SCDOT Program Manager.

Utility Clearance Separation Values (*): (Project Specific Task) The CONSULTANT shall determine the minimum vertical and horizontal separation values required by each utility. These values will provide the SCDOT Program Manager vertical and horizontal clearance design criteria during preliminary project development.

Early Utility Coordination Email (*): The CONSULTANT shall prepare and send the Early Utility Coordination Email to the SCDOT Program Manager, SCDOT Utility Office and the District Utility Coordinator. Email to be used as an informal summary of the Early Utility Coordination tasks.

Deliverables:

The CONSULTANT shall prepare and submit to the Department an Early Utility Coordination Email within 30 days after receiving the Notice to Proceed (NTP) which includes:

- List of all utility companies and contact information within the project limits.
- Utility Introduction Letter (Required).
- Early assessment of each Utility Company's facilities located within project limits.
- Utility Companies Coordination Meeting Notes.

- SUE Mapping Recommendation.
- Utility Clearance Separation Values.

9.2. Preliminary Utility Coordination

Initial Plan Distribution (*): The CONSULTANT shall provide the utility company with preliminary design plans as soon as the plans have reached a level of completeness adequate to allow the company to begin understanding the Project impacts.

Coordination Meeting with Utility Companies (*): The CONSULTANT shall coordinate and conduct a review meeting with the utility companies to assess and explain the impact of the Project to the company. The SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be included in this meeting.

Collection and Review of Prior Right Documentation (*): The CONSULTANT shall request the prior rights documents for each utility company's facilities. If there is a dispute over prior rights with a utility, the CONSULTANT shall be responsible for resolving the dispute and making a recommendation to the SCDOT. The CONSULTANT shall meet with the SCDOT's Program Manager to present the prior rights information gathered. This information must be sufficient for the SCDOT's Program Manager to certify the extent of the utility company's prior rights. The SCDOT shall have final approval authority as to the determination of whether the utility company has prior rights.

Preliminary Utility Report (*): The CONSULTANT shall prepare the Preliminary Utility Report.

Progress Review Meeting (*): The CONSULTANT shall conduct a progress review meeting with the SCDOT Program Manager.

Deliverables:

- The CONSULTANT shall prepare and submit to the Department a Preliminary Utility Report which includes:
- List of all utility companies and contact information within the project limits.
- Utility Company Coordination Meeting Notes.
- Preliminary recommendation as to the extent of each utility company's prior rights.
- Preliminary assessment of the impact to each utility company, including costs (for those utilities with prior rights), as can best be determined at the time.
- Information on existing SCDOT ITS infrastructure. Utility companies will be informed that intersections at the interchanges, no overhead lines will be allowed due to the possibility of future signals.
- Recommendations for In-Contract Utility Relocations.
- Recommendations for early Utility Relocations prior to the start of construction.
- Preliminary Utility Report to be delivered in an electronic format (pdf).

9.3. Constructability Review Meeting *

The CONSULTANT shall plan and conduct a Constructability Review Meeting with all utility companies in order to discuss any conflicts with proposed utility relocations vs. roadway construction work and any conflicts between various utilities. SCDOT's Program Manager, Resident Construction Engineer (RCE), Resident Maintenance Engineer (RME), District Utility Coordinator and Utilities Manager (or designee) shall be invited to the meeting.

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3.0.9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	**0**
Contract Designation	**0**

Labor Multipliers

Overhead Rate	**123.00 %**	*a*
FCCM Rate	**0.00 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.4530**	*(1 + a)*(1 + c) + b*

Consultant Information

Firm Name	**Atlantic South**
Certified DBE ?	**Yes**
Reviewer Name	**0**
Submittal Date	**September 4, 2020**
Estimate Type	**Subconsultant**

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
	02	Aerial Mapping & Field Surveys (inactive)
	03	Traffic Studies & Modeling (inactive)
	04	Environmental Services (inactive)
✓	**05**	**Roadway & Path Design**
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
✓	**09**	**Utility Coordination**
	10	Subsurface Utility Engineering (SUE) (inactive)
	11	Right of Way (inactive)
	12	Support During Development of RFQ/RFP (inactive)
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
	19	Traffic Engineering Review (inactive)
	20	Design Contingency (inactive)
	21	0
	22	0
	23	0
	24	0
	25	0

Subconsultant Roster

Subconsultant	Certified DBE ?
0	
0	
0	
0	
0	
0	
0	
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0	
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0	
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0	
0	
0	

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Task 05: Roadway & Path Design

Manhours

Staff Classification	Project Manager	Sr Transportation Engineer	Transportation Engineer	Jr Transportation Engineer EIT	Engineering Technician	.	.	.	.	.	.	.	.	.	.	Manhour Totals	
Manhour Totals by Classification	12	26	0	60	0	0	0	0	0	0	0	0	0	0	0	98	
Sub-task																	
5.10 Conceptual Plans	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.1.1 Design Criteria	2	2	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
5.1.2 Preparation of Conceptual Plans	0	8	0	20	0	0	0	0	0	0	0	0	0	0	0	28	28.6%
5.1.3 Conceptual Cost Estimates	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.20 Preliminary Road	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
5.2.1 Preparation of Preliminary Plans	0	8	0	16	0	0	0	0	0	0	0	0	0	0	0	24	24.5%
5.2.2 Preliminary Cost Estimates	4	0	0	2	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
5.2.3 Design Field Review Meeting	2	0	0	2	0	0	0	0	0	0	0	0	0	0	0	4	4.1%
5.2.4 Finalize Preliminary Road Plans	0	6	0	12	0	0	0	0	0	0	0	0	0	0	0	18	18.4%
5.2.5 ROW and Environmental Impacts	0	2	0	4	0	0	0	0	0	0	0	0	0	0	0	6	6.1%
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
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0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Task Notes

General Task Notes

0

0

0

Sub-task	Manhour Totals	Notes
5.10 Conceptual Plans	0	0
5.1.1 Design Criteria	6	0
5.1.2 Preparation of Conceptual Plans	28	0
5.1.3 Conceptual Cost Estimates	6	0
0.00 0	0	0
5.20 Preliminary Road	0	0
5.2.1 Preparation of Preliminary Plans	24	0
5.2.2 Preliminary Cost Estimates	6	0
5.2.3 Design Field Review Meeting	4	0
5.2.4 Finalize Preliminary Road Plans	18	0
5.2.5 ROW and Environmental Impacts	6	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

05

Task 05: Roadway & Path Design

0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead	Profit	FCCM		Labor Total
					123.00%	10.00%	0.00%		
	Project Manager	12	$ 67.30	$ 807.60	$ 993.35	$ 180.10	$ -	0	$ 1,981.05
	Sr Transportation Engineer	26	$ 67.30	$ 1,749.80	$ 2,152.25	$ 390.21	$ -	0	$ 4,292.26
	Transportation Engineer	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	Jr Transportation Engineer EIT	60	$ 31.25	$ 1,875.00	$ 2,306.25	$ 418.13	$ -	0	$ 4,599.38
	Engineering Technician	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
DBE% 100%	Task Totals for Labor	98	0	$ 4,432.40 (A)	$ 5,451.85 (B)	$ 988.44 (C)	$ - (D)	0	$ 10,872.69 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
	Task Totals for Subconsultant Involvement	$ - (G)	0

Fee Summary for Task

A	Direct Labor	$ 4,432.40
B	Overhead [A x 1.23]	$ 5,451.85
C	Profit [(A+B) x 0.1]	$ 988.44
D	FCCM [A x 0]	$ -
E	Labor Total	$ 10,872.69
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 10,872.69

$10.872.69

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

09

Task 09: Utility Coordination

Manhours

Staff Classification	Project Manager	Utilities Coordinator	-	-	-	-	-	-	-	-	-	-	-	-	-	Manhour Totals	
Manhour Totals by Classification	114	214	0	0	0	0	0	0	0	0	0	0	0	0	0	328	
Sub-task																	
9.30 Preliminary Review Meeting w/ Utility Companies	2	2	0	0	0	0	0	0	0	0	0	0	0	0	0	4	1.2%
9.40 Research of Utility Owners	20	40	0	0	0	0	0	0	0	0	0	0	0	0	0	60	18.3%
9.50 Initial Joint Utility Coordination Meeting & Summary	4	4	0	0	0	0	0	0	0	0	0	0	0	0	0	8	2.4%
9.80 Prior Rights Documentation	80	160	0	0	0	0	0	0	0	0	0	0	0	0	0	240	73.2%
9.90 Preliminary Utility Report	8	8	0	0	0	0	0	0	0	0	0	0	0	0	0	16	4.9%
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	
0.00 0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	

Task Notes

General Task Notes

0

0

0

Sub-task	Manhour Totals	Notes
9.30 Preliminary Review Meeting w/ Utility Companies	4	0
9.40 Research of Utility Owners	60	0
9.50 Initial Joint Utility Coordination Meeting & Summary	8	0
9.80 Prior Rights Documentation	240	0
9.90 Preliminary Utility Report	16	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
0.00 0	0	0
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0.00 0	0	0
0.00 0	0	0

09

Task 09: Utility Coordination

0.00	0	0	0
0.00	0	0	0
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0.00	0	0	0
0.00	0	0	0
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0.00	0	0	0
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0.00	0	0	0
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0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0
0.00	0	0	0

Fee Determination for Labor

	Staff Classification	Hours	Rate	Direct Labor	Overhead 123.00%	Profit 10.00%	FCCM 0.00%		Labor Total
	Project Manager	114	$ 67.30	$ 7,672.20	$ 9,436.81	$ 1,710.90	$ -	0	$ 18,819.91
	Utilities Coordinator	214	$ 31.25	$ 6,687.50	$ 8,225.63	$ 1,491.31	$ -	0	$ 16,404.44
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
	-	0	$ -	$ -	$ -	$ -	$ -	0	$ -
DBE% 100%	Task Totals for Labor	328	0	$ 14,359.70 (A)	$ 17,662.44 (B)	$ 3,202.21 (C)	$ - (D)	0	$ 35,224.35 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	200	miles	@	$ 0.575	per mile	$ 115.00
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
-	0	-	@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 115.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$0.00	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
0%	0	$ -	0
	Task Totals for Subconsultant Involvement	$ - (G)	0

Fee Summary for Task

A	Direct Labor	$ 14,359.70
B	Overhead [A x 1.23]	$ 17,662.44
C	Profit [(A+B) x 0.1]	$ 3,202.21
D	FCCM [A x 0]	$ -
E	Labor Total	$ 35,224.35
F	Non-salary Direct Expenses	$ 115.00
G	Subconsultant Fees	$ -
	Task Total	$ 35,339.35

$35,339.35

Bihl Engineering

Bihl Engineering has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

3. TRAFFIC STUDIES AND MODELING

3.1. Traffic Study Support and QC

The CONSULTANT will assist HDR with existing and historical information related to recent traffic studies performed in the area

The CONSULTANT will provide an independent QC review of the Traffic Analysis Study Report.

4. ENVIRONMENTAL SERVICES

4.1. Public Involvement*

The CONSULTANT shall be responsible for participating in public involvement meetings as detailed below:

1. One (1) public information meeting
2. One (1) stakeholder meeting
3. Two (2) community meetings

12. SUPPORT DURING DEVELOPMENT OF THE RFQ/RFP

12.1. CONSULTANT shall provide support, as needed, for the following tasks while the CITY is developing the Design-Build RFQ and RFP:

- Develop Project Design Criteria for each discipline for the RFP.*
  - Traffic Signals
- Provide assistance with Development of project-specific special provisions.*

19. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule.

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to

act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor, and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for both of the two (2) plan submittals noted in the Anticipated Project Segmentation and Submittal Section:

   i. Permanent Pavement Marking Plans *
   ii. Permanent Signing Plans *
   iii. Permanent Lighting Plans *
   iv. As Built Signing Plans *
   v. As Built Lighting Plans *
   vi. Traffic Signal Plans *
   vii. As Built Traffic Signal Plans *
   viii. Traffic Management Plan *
   ix. Conceptual Work Zone Traffic Control Plans*
   x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on five (5) Requests for Information
ii. Review and provide recommendations on one (1) Technical Special Provisions

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that two (1) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with CITY, Contractor, and others
ii. Attend five (5) two-hour Design Coordination Meetings

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**Bihl**
Certified DBE ?	Yes
Reviewer Name	
Submittal Date	
Estimate Type	**Subconsultant**

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
	02	Aerial Mapping & Field Surveys (inactive)
✓	**03**	**Traffic Studies & Modeling**
✓	**04**	**Environmental Services**
	05	Roadway & Path Design (inactive)
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
	09	Utility Coordination (inactive)
	10	Subsurface Utility Engineering (SUE) (inactive)
	11	Right of Way (inactive)
✓	**12**	**Support During Development of RFQ/RFP**
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
✓	**19**	**Traffic Engineering Review**
	20	Design Contingency (inactive)
	21	
	22	
	23	
	24	
	25	

Labor Multipliers

Overhead Rate	**122.58 %**	*a*
FCCM Rate	**0.33 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.4517**	*(1 + a)*(1 + c) + b*

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
03	Traffic Studies & Modeling	$ 7,143.55	$ -	$ -	$ 7,143.55	16.8%
04	Environmental Services	$ 2,650.47	$ -	$ -	$ 2,650.47	6.2%
12	Support During Development of RFQ/RFP	$ 8,060.87	$ -	$ -	$ 8,060.87	18.9%
19	Traffic Engineering Review	$ 24,761.17	$ -	$ -	$ 24,761.17	58.1%
	Totals	$ 42,616.06	$ -	$ -	$ 42,616.06	

Bihl

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
03	Traffic Studies & Modeling	$ 2,913.73	$ 3,571.65	$ 648.55	$ 9.62	$ 7,143.55	$ -	$ 7,143.55
04	Environmental Services	$ 1,081.08	$ 1,325.19	$ 240.63	$ 3.57	$ 2,650.47	$ -	$ 2,650.47
12	Support During Development of RFQ/RFP	$ 3,287.90	$ 4,030.30	$ 731.82	$ 10.85	$ 8,060.87	$ -	$ 8,060.87
19	Traffic Engineering Review	$ 10,099.67	$ 12,380.18	$ 2,247.99	$ 33.33	$ 24,761.17	$ -	$ 24,761.17
	Totals	$ 17,382.38	$ 21,307.32	$ 3,868.99	$ 57.37	$ 42,616.06	$ -	$ 42,616.06
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Bihl	$ 42,616.06	100.0%	$ 42,616.06
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $42,616.06		
	Total DBE Qualifying Fee		$ 42,616.06
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	17,382.38
B - Overhead [A x 1.2258]	$	21,307.32
C - Profit [(A+B) x 0.1]	$	3,868.99
D - FCCM [A x 0.0033]	$	57.37
E - Labor Total	$	42,616.06
F - Total Non-Salary Direct Expenses	$	-
G - Subconsultant Fees	$	-
Fee Total	$	42,616.06

fee total less profit $38,747.07

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Task 03: Traffic Studies & Modeling

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant									Manhour Totals
Manhour Totals by Classification		17	30	5										52

Sub-task															
3.10	Traffic Study Support and QC		17	30	5									52	100.0%

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
3.10	Traffic Study Support and QC	52	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (122.58%)	Profit (10.00%)	FCCM (0.33%)	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer	17	$ 90.09	$ 1,531.53	$ 1,877.35	$ 340.89	$ 5.05	$ 3,754.82
Traffic Engineer	30	$ 37.74	$ 1,132.20	$ 1,387.85	$ 252.01	$ 3.74	$ 2,775.80
Sr Transportation Engineer	5	$ 50.00	$ 250.00	$ 306.45	$ 55.65	$ 0.83	$ 612.93
Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE%							
100%	Task Totals for Labor	52	$ 2,913.73 (A)	$ 3,571.65 (B)	$ 648.55 (C)	$ 9.62 (D)	$ 7,143.55 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,913.73
B	Overhead [A x 1.2258]	$ 3,571.65
C	Profit [(A+B) x 0.1]	$ 648.55
D	FCCM [A x 0.0033]	$ 9.62
E	Labor Total	$ 7,143.55
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 7,143.55

$7,143.55

Task 04: Environmental Services

Manhours

Staff Classification	Project Manager	Sr. Traffic Engineer	Traffic Engineer	Sr. Transportation Engineer	Administrative Assistant										Manhour Totals
Manhour Totals by Classification		12													12
Sub-task															
4.1.1 Public Information Meeting		4													4 33.3%
4.1.2 Stakeholder Meeting		3													3 25.0%
4.1.3 Community Meetings		5													5 41.7%
4.30 Public Involvement															
4.3.1 Project Website															
4.3.2 Press Release															
4.3.3 Public Information Meeting															
4.3.4 Stakeholder Meeting															
4.3.5 Community Meetings															
4.3.6 Marina Operator Meeting															

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
4.1.1 Public Information Meeting	4	
4.1.2 Stakeholder Meeting	3	
4.1.3 Community Meetings	5	
4.30 Public Involvement		
4.3.1 Project Website		
4.3.2 Press Release		
4.3.3 Public Information Meeting		
4.3.4 Stakeholder Meeting		
4.3.5 Community Meetings		
4.3.6 Marina Operator Meeting		

Fee Determination for Labor

DBE*	Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
	Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
	Sr Traffic Engineer	12	$ 90.09	$ 1,081.08	$ 1,325.19	$ 240.63	$ 3.57	$ 2,650.47
	Traffic Engineer		$ 37.74	$ -	$ -	$ -	$ -	$ -
	Sr Transportation Engineer		$ 50.00	$ -	$ -	$ -	$ -	$ -
	Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
	-		$ -	$ -	$ -	$ -	$ -	$ -
DBE* 100%	Task Totals for Labor	12		$ 1,081.08 (A)	$ 1,325.19 (B)	$ 240.63 (C)	$ 3.57 (D)	$ 2,650.47 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 1,081.08
B	Overhead [A x 1.2258]	$ 1,325.19
C	Profit [(A+B) x 0.1]	$ 240.63
D	FCCM [A x 0.0033]	$ 3.57
E	Labor Total	$ 2,650.47
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 2,650.47

$2,650.47

12

Task 12: Support During Development of RFQ/RFP

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant										Manhour Totals
Manhour Totals by Classification		10	50	10											70
Sub-task															
12.1.3 Develop Design Criteria		5	30	5											40 57.1%
12.1.5 Special Provisions		5	20	5											30 42.9%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
12.1.3 Develop Design Criteria	40	
12.1.5 Special Provisions	30	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (122.58%)	Profit (10.00%)	FCCM (0.33%)	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer	10	$ 90.09	$ 900.90	$ 1,104.32	$ 200.52	$ 2.97	$ 2,208.71
Traffic Engineer	50	$ 37.74	$ 1,887.00	$ 2,313.08	$ 420.01	$ 6.23	$ 4,626.32
Sr Transportation Engineer	10	$ 50.00	$ 500.00	$ 612.90	$ 111.29	$ 1.65	$ 1,225.84
Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE*							
100% Task Totals for Labor	70		$ 3,287.90 (A)	$ 4,030.30 (B)	$ 731.82 (C)	$ 10.85 (D)	$ 8,060.87 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 3,287.90
B	Overhead [A x 1.2258]	$ 4,030.30
C	Profit [(A+B) x 0.1]	$ 731.82
D	FCCM [A x 0.0033]	$ 10.85
E	Labor Total	$ 8,060.87
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 8,060.87

$8,060.87

19

Task 19: Traffic Engineering Review

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Sr Transportation Engineer	Administrative Assistant										Manhour Totals	
Manhour Totals by Classification		63	100	13											176	
Subtask																
A Traffic Reviews																
i. Permanent Pavement Marking Plans		2	6												8	4.5%
ii Permanent Signing Plans		2	6												8	4.5%
iii. Permanent Lighting Plans																
iv As Built Signing Plans		4	8												12	6.8%
v As Built Lighting Plans																
vi Traffic Signal Plans		4	8												12	6.8%
vii As Built Traffic Signal Plans		4	8												12	6.8%
viii Traffic Management Plan		5	15												20	11.4%
ix. Conceptual Work Zone Traffic Control Plans		3	10												13	7.4%
x Work Zone Traffic Control Plans		3	10												13	7.4%
B Miscellaneous Submittals																
i RFIs (15)		3	6	3											12	6.8%
ii. NCRs (3)																
iii. Issue Papers (3)																
iv. Technical Special Provisions (2)		8	8	5											21	11.9%
v Independent Analyses (4)																
C Revised Drawings/Contractor Changes (2)		4	15	5											24	13.6%
D Meetings																
i. Partnering Meeting (1)		8													8	4.5%
ii Design Coordination Meetings (5)		13													13	7.4%

Task Notes

General Task Notes

Subtask	Manhour Totals	Notes
A Traffic Reviews		
i. Permanent Pavement Marking Plans	8	
ii Permanent Signing Plans	8	
iii. Permanent Lighting Plans		
iv As Built Signing Plans	12	
v As Built Lighting Plans		
vi Traffic Signal Plans	12	
vii As Built Traffic Signal Plans	12	
viii Traffic Management Plan	20	
ix. Conceptual Work Zone Traffic Control Plans	13	
x Work Zone Traffic Control Plans	13	
B Miscellaneous Submittals		
i RFIs (15)	12	
ii. NCRs (3)		
iii. Issue Papers (3)		
iv. Technical Special Provisions (2)	21	
v Independent Analyses (4)		
C Revised Drawings/Contractor Changes (2)	24	
D Meetings		
i. Partnering Meeting (1)	8	
ii Design Coordination Meetings (5)	13	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 122.58%	Profit 10.00%	FCCM 0.33%	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer	63	$ 90.09	$ 5,675.67	$ 6,957.24	$ 1,263.29	$ 18.73	$ 13,914.93
Traffic Engineer	100	$ 37.74	$ 3,774.00	$ 4,626.17	$ 840.02	$ 12.45	$ 9,252.64
Sr Transportation Engineer	13	$ 50.00	$ 650.00	$ 796.77	$ 144.68	$ 2.15	$ 1,593.60
Administrative Assistant		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -

DBE%								
100%	Task Totals for Labor	176	$ 10,099.67 (A)	$ 12,380.18 (B)	$ 2,247.99 (C)	$ 33.33 (D)	$ 24,761.17 (E)

Non-salary Direct Expenses

19

Task 19: Traffic Engineering Review

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
	Task Totals for Subconsultant Involvement	$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 10,099.67
B	Overhead [A x 1.2258]	$ 12,380.18
C	Profit [(A+B) x 0.1]	$ 2,247.99
D	FCCM [A x 0.0033]	$ 33.33
E	Labor Total	$ 24,761.17
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 24,761.17

$24,761.17

Cornerstone

Cornerstone has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

The CONSULTANT will supplement the aerial mapping by performing field surveys as outlined below to determine accurate elevations and locations of existing facilities (e.g., utilities, roadways, bridges, and culverts) for design purposes. All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection.
- West Ashley Greenway/Wappoo Road

2.2.1. Project Survey Control*

The CONSULTANT will establish Project Survey Control. The project survey control will be tied to the South Carolina State Plane coordinate system to be a basis for all surveys required on the project using the NAD83(current adjustment) horizontal datum, the NAVD88 vertical datum and the International Foot. Supplemental control will be established as needed. A minimum of (2) Project Benchmarks will be established. Additional Project Benchmarks will be established

depending on project length. It is assumed that approximately **10** survey control points and **5** project benchmarks will be needed for this project.

2.2.2. Best Fit Existing Roadway Alignment (ERA)*

The CONSULTANT will establish a Best Fit Existing Roadway Alignment (ERA) based on the field survey of the existing centerline of all SCDOT and CITY roads within the project limits. If roads exist within the project limits but are outside the SCDOT or CITY Right-of-Way, best survey practices will be used to develop these rights-of-way. It is assumed that approximately **9000** feet of best fit road alignment will need to be calculated.

2.2.3. Courthouse Research*

The CONSULTANT will conduct Courthouse Research on properties, within the project limits, to obtain the most current deeds, plats, ownership information and tax map number from the County Register of Deeds. The plats and deeds will be used to create property strip maps. CONSULTANT will also obtain the most current SCDOT record plans and other Right-of-Way information. It is assumed that approximately **56** properties will be researched for the Project and approximately **8300** linear feet of road centerline will be used to establish Right-of-Way lines.

2.2.4. Field Survey Detectable Property Monuments*

The CONSULTANT will perform reconnaissance and Field Survey Detectable Property Monuments (front monuments if sufficient numbers are found) within the project limits to facilitate the mapping of the properties from deed and/or plat information of record. The monuments that are found will be tied into the project's horizontal survey control network. This is considered a partial property survey and does not constitute a full boundary survey. It is assumed that approximately **56** properties will be within the Project limits.

2.2.5. Property Strip Map and the Existing Road Rights-of-Way*

The CONSULTANT will create a Property Strip Map and the Existing Road Rights-of-Way. Property corners found and field surveyed will be used to produce a property strip map which will show property lines calculated from existing deeds and/or plats of record. The existing right-of-way will be mapped for all SCDOT or CITY roads within the project limits utilizing the final Best Fit Existing Roadway Alignment (ERA), evidence of right-of-way (existing road features and/or found right-of-way monuments) and existing SCDOT record plans as well as other right-of-way information. The Property Strip Map is considered a partial property survey and does not constitute a full boundary survey.

2.2.6. Supplement Aerial Mapping*

CONSULTANT will perform **Supplemental Aerial Mapping** by field surveying those planimetric (2D) and topographic breakline (3D) features (such as buildings, fences, trees, poles, top bank, edge of asphalt, walls, etc.) that are obscured on the aerial mapping within the project limits. It is assumed that approximately **50** acres will need to be surveyed.

2.2.7. Drainage Feature Surveys*

CONSULTANT will perform **Drainage Feature** surveys of outfall ditches and creeks to include location and cross sections at intervals of 50 feet, for a length of no less than 400 feet up-stream and 400 down-stream as measured from the end of the drainage structure. Cross sections will extend 50 feet from the top bank of each drainage feature. Drainage surveys will include ditches upstream as well as downstream of each main drainage feature. It is assumed that approximately **800** feet of drainage features will need to be surveyed.

2.2.8. Storm Drainage Structures*

CONSULTANT will locate and field survey existing **Storm Drainage Structures** within the project limits. Information obtained will include rim and invert elevations, pipe size and pipe material. It is assumed that approximately **25** storm drainage structures will need to be surveyed.

2.2.9. Gravity Sanitary Sewer Manholes*

CONSULTANT will field survey **Gravity Sanitary Sewer Manholes** with connectivity between manholes to include rim elevations, invert elevations, type and size of pipe. It is assumed that approximately **10** gravity sanitary sewer manholes will need to be surveyed.

2.2.10. Wetland Boundaries*

Wetland boundaries were included under a separate Small Professional Services contract with the CITY.

2.2.11. Geotechnical Bore Holes*

CONSULTANT will field survey the horizontal location of **Geotechnical Bore Holes** including a ground elevation at each bore hole. It is assumed that approximately **17** geotechnical bore holes will need to be surveyed.

2.2.12. Traffic Control*

CONSULTANT will maintain appropriate signage for **Traffic Control** purposes at all times when working within or near the existing traffic areas. It is assumed that approximately **(5)** days of traffic control will be needed.

2.2.13. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.
- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- One (1) digital copy of all courthouse Deeds, Plats and Property Ownership records.
- One (1) digital copy of signed and sealed Wetland Exhibit survey.
- One (1) digital copy of signed and sealed Survey Control Data sheet(s).
- Digital file name conventions will follow the SCDOT survey manual specifications.

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Manhour and Fee Estimate Overview

MFE Version 3 0 9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**Cornerstone Surveying & Engineering, Inc.**
Certified DBE ?	Yes
Prepared by	
Effective Date	
Estimate Type	**Subconsultant**

Labor Multipliers

Overhead Rate	**142.81%**	*a*
FCCM Rate		*b*
Profit Rate	**10.00%**	*c*
Combined Multiplier	**2.6709**	*(1 + a)*(1 + c) + b*

Task Identification

	Number	Description
	01	Project Organization and Management
✓	02	Aerial Mapping & Field Surveys
	03	Traffic Studies & Modeling
	04	Environmental Services
	05	Roadway & Path Design
	06	Structural Design
	07	Hydrology & Hydraulic Design
	08	Geotechnical Services
	09	Utility Coordination
	10	Subsurface Utility Engineering (SUE)
	11	Right of Way
	12	Support During Development of RFQ/RFP
	13	Support During Procurement
	14	Design Plan Review Organization & Management
	15	Roadway & Path Design Review
	16	Structural Design Review
	17	Hydraulic Design Review
	18	Geotechnical Design Review
	19	Traffic Engineering Review
	20	Design Contingency
	21	
	22	
	23	
	24	
	25	

Subconsultant Roster

Subconsultant	Certified DBE ?

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
02	Aerial Mapping & Field Surveys	$ 98,847.91	$ 4,375.00	$ -	$ 103,222.91	100.0%
	Totals	$ 98,847.91	$ 4,375.00	$ -	$ 103,222.91	

Cornerstone Surveying & Engineering, Inc.

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
02	Aerial Mapping & Field Surveys	$ 37,009.07	$ 52,852.66	$ 8,986.18	$ -	$ 98,847.91	$ 4,375.00	$ 103,222.91
	Totals	$ 37,009.07	$ 52,852.66	$ 8,986.18	$ -	$ 98,847.91	$ 4,375.00	$ 103,222.91
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Cornerstone Surveying & Engineering, In	$ 103,222.91	100.0%	$ 103,222.91
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $103,222.91		
	Total DBE Qualifying Fee		$ 103,222.91
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	37,009.07
B - Overhead [A x 1.4281]	$	52,852.66
C - Profit [(A+B) x 0.1]	$	8,986.18
D - FCCM [A x 0]	$	-
E - Labor Total	$	98,847.91
F - Total Non-Salary Direct Expenses	$	4,375.00
G - Subconsultant Fees	$	-
Fee Total	$	103,222.91

fee total less profit $94,236.73

Prepared by: _____

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Task 02: Aerial Mapping & Field Surveys

Manhours

Staff Classification	Project Manager	Sr Traffic Engineer	Traffic Engineer	Jr Traffic Engineer EIT	Land Surveyor	Survey Crew Chief	Survey Instrument Man	Survey Rodman								Manhour Totals
Manhour Totals by Classification					279	425	425	305								1434

Sub-task																	
2.2.1	Project Survey Control					10	30	30	30								100	7.0%
2.2.2	Best Fit Existing Roadway Alignment (ERA)					100	160	160	160								580	40.4%
2.2.3	Courthouse Research					28											28	2.0%
2.2.4	Field Survey Detectable Property Monuments					20	60	60									140	9.8%
2.2.5	Property Strip Map					60											60	4.2%
2.2.6	Supplement Aerial Mapping					40	60	60	60								220	15.3%
2.2.7	Drainage Feature					5	20	20	20								65	4.5%
2.2.8	Storm Drainage Structures					5	25	25	25								80	5.6%
2.2.9	Gravity Sanitary Sewer Manholes					2	10	10	10								32	2.2%
2.2.10	Wetland Boundaries (Previously Surveyed)																	
2.2.11	Geotechnical Bore Holes					4	20	20									44	3.1%
2.2.12	Traffic Control					5	40	40									85	5.9%
2.2.13	Bridge Structures																	
2.2.14	Bathymetric Surveys																	

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
2.2.1	Project Survey Control	100	
2.2.2	Best Fit Existing Roadway Alignment (ERA)	580	
2.2.3	Courthouse Research	28	
2.2.4	Field Survey Detectable Property Monuments	140	
2.2.5	Property Strip Map	60	
2.2.6	Supplement Aerial Mapping	220	
2.2.7	Drainage Feature	65	
2.2.8	Storm Drainage Structures	80	
2.2.9	Gravity Sanitary Sewer Manholes	32	
2.2.10	Wetland Boundaries (Previously Surveyed)		
2.2.11	Geotechnical Bore Holes	44	
2.2.12	Traffic Control	85	
2.2.13	Bridge Structures		
2.2.14	Bathymetric Surveys		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (142.91%)	Profit (16.65%)	FCCM	Labor Total
Project Manager		$ -	$ -	$ -	$ -	$ -	$ -
Sr Traffic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
Traffic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
Jr Traffic Engineer/EIT		$ -	$ -	$ -	$ -	$ -	$ -
Land Surveyor	279	$ 50.33	$ 14,042.07	$ 20,053.48	$ 3,409.56	$ -	$ 37,505.11
Survey Crew Chief	425	$ 24.21	$ 10,289.25	$ 14,694.08	$ 2,498.33	$ -	$ 27,481.66
Survey Instrument Man	425	$ 17.63	$ 7,492.75	$ 10,700.40	$ 1,819.32	$ -	$ 20,012.47
Survey Rodman	305	$ 17.00	$ 5,185.00	$ 7,404.70	$ 1,258.97	$ -	$ 13,848.67
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -

DBE%						
100%	**Task Totals for Labor**	$ 37,009.07 (A)	$ 52,852.66 (B)	$ 8,986.18 (C)	$ - (D)	$ 98,847.91 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay		days	@	$ 71.00	per day	$ -
Per Diem, without Overnight Stay		days	@	$ 53.25	per day	$ -
Lodging		nights	@	$ 164.00	per night	$ -
Mileage	5,000	miles	@	$ 0.575	per mile	$ 2,875.00
Traffic Control		nights	@	$ 3,500.00	per night	$ -
Scanner		days	@	$ 1,000.00	per day	$ -
Boat	3	days	@	$ 500.00	per day	$ 1,500.00
				Task Total for Non-salary Direct Expenses		$ 4,375.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours

Fee Summary for Task

A	**Direct Labor**	$ 37,009.07

02

Task 02: Aerial Mapping & Field Surveys

	$	-
	$	-
	$	-
	$	-
	$	-
	$	-
	$	-
	$	-

Task Totals for Subconsultant Involvement

(G)

B	Overhead [A x 1.4281]	$	52,852.66
C	Profit [(A+B) x 0.1]	$	8,986.18
D	FCCM [A x 0]	$	-
E	Labor Total	$	98,847.91
F	Non-salary Direct Expenses	$	4,375.00
G	Subconsultant Fees		
	Task Total	$	103,222.91

$103,222.91

DESA

DESA will provide the services highlighted in blue below.

4. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

~~1. Project website hosted on the CITY's website~~
~~2. Press release~~
3. One (1) public information meeting (DESA PROVIDING STAFF, LOGISTICAL SUPPORT, & COMMENT SUMMARY)
4. One (1) stakeholder meeting(DESA PROVIDING STAFF & LOGISTICAL SUPPORT)
5. Two (2) community meetings (DESA PROVIDING STAFF & LOGISTICAL SUPPORT)
~~6. One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.~~

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1
MFE Version 2.46

Project Information

Project Name	**Ashley River Pedestrian Bridge**
Project Phase or Segment	**DB Prepraration Services**
Project Location	**Charleston**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**DESA**
Certified DBE ?	Yes
Reviewer Name	
Submittal Date	**September 11, 2020**
Estimate Type	**Subconsultant**

Task Identification

Active	Number	Description
	01	Project Organization and Management
	02	Field Surveys (Supplemental)
	03	Traffic Studies and Modeling
✓	04	Environmental Services
	05	Roadway and Path Design
	06	Structural Design
	07	Hydrology and Hydraulic Design
	08	Geotechnical Services
	09	Utility Coordination
	10	SUE
	11	Right of Way
	12	Development of RFQ and RFP
	13	Procurement
	14	Design Plan Review and Administration
	15	CE&I
	16	
	17	
	18	
	19	
	20	

Labor Multipliers

Overhead Rate	**125.00 %**	*a*
FCCM Rate		*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**2.4750**	*(1 + a)*(1 + c) + b*

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	**Task 10**
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ -	$ -	$ -	$ -	-
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	-
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	-
04	Environmental Services	$ 7,316.10	$ 183 90	$ -	$ 7,500.00	100.0%
05	Roadway and Path Design	$ -	$ -	$ -	$ -	-
06	Structural Design	$ -	$ -	$ -	$ -	-
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	-
08	Geotechnical Services	$ -	$ -	$ -	$ -	-
09	Utility Coordination	$ -	$ -	$ -	$ -	-
10	SUE	$ -	$ -	$ -	$ -	-
11	Right of Way	$ -	$ -	$ -	$ -	-
12	Development of RFQ and RFP	$ -	$ -	$ -	$ -	-
13	Procurement	$ -	$ -	$ -	$ -	-
14	Design Plan Review and Administration	$ -	$ -	$ -	$ -	-
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$ 7,316 10	$ 183 90	$ -	$ 7,500 00	

DESA

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
04	Environmental Services	$ 2,956 00	$ 3,695 00	$ 665 10	$ -	$ 7,316 10	$ 183 90	$ 7,500 00
05	Roadway and Path Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
06	Structural Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
08	Geotechnical Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	SUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ -	$ -	$ -	$ -	$ -	$ -	$ -
13	Procurement	$ -	$ -	$ -	$ -	$ -	$ -	$ -
14	Design Plan Review and Administration	$ -	$ -	$ -	$ -	$ -	$ -	$ -
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 2,956 00	$ 3,695 00	$ 665 10	$ -	$ 7,316 10	$ 183 90	$ 7,500 00
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
DESA	$ 7,500.00	100.0%	$ 7,500.00
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Total DBE Qualifying Fee		$ 7,500 00
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	**2,956.00**
B - Overhead [A x 1.25]	$	**3,695.00**
C - Profit [(A+B) x 0.1]	$	**665.10**
D - FCCM [A x 0]	$	**-**
E - Labor Total	$	**7,316.10**
F - Total Non-Salary Direct Expenses	$	**183.90**
G - Subconsultant Fees	$	**-**
Fee Total	$	**7,500.00**

fee total less profit $6,834 90

Prepared by _____

Task 04: Environmental Services

Manhours

Staff Classification	Sr Public Involvement Coordinator	Public Involvement Coordinator	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification	42	40									82

Sub-task												
4.1.3 Public Information Meeting	4	4									8	9.8%
Logistical Planning/Coordination/Materials	15	14									29	35.4%
4.1.4 Stakeholder Meeting	4	4									8	9.8%
Logistical Planning/Coordination/Materials	10	10									20	24.4%
4.1.5 Community Meeting (x2)	4	4									8	9.8%
Logistical Planning/Coordination/Materials	5	4									9	11.0%

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
4.1.3	Public Information Meeting	8	
	Logistical Planning/Coordination/Materials	29	
4.1.4	Stakeholder Meeting	8	
	Logistical Planning/Coordination/Materials	20	
4.1.5	Community Meeting (x2)	8	
	Logistical Planning/Coordination/Materials	9	

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 125.00%	Profit 10.00%	FCCM	Labor Total
Sr. Public Involvement Coordinator	42	$ 38.00	$ 1,596.00	$ 1,995.00	$ 359.10	$ -	$ 3,950.10
Public Involvement Coordinator	40	$ 34.00	$ 1,360.00	$ 1,700.00	$ 306.00	$ -	$ 3,366.00
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE%							
100% Task Totals for Labor	82		$ 2,956.00 (A)	$ 3,695.00 (B)	$ 665.10 (C)	$ - (D)	$ 7,316.10 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	300	miles	@	$ 0.575	per mile	$ 172.50
Printing (11x17)	114	eachs	@	$ 0.10	per each	$ 11.40
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
-		-	@	$ -	-	$ -
						$ -
						$ -
Task Total for Non-salary Direct Expenses						$ 183.90 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 2,956.00
B	Overhead [A x 1.25]	$ 3,695.00
C	Profit [(A+B) x 0.1]	$ 665.10
D	FCCM [A x 0]	$ -
E	Labor Total	$ 7,316.10
F	Non-salary Direct Expenses	$ 183.90
G	Subconsultant Fees	$ -
	Task Total	$ 7,500.00

$7,500.00

McKim & Creed

2. AERIAL MAPPING and FIELD SURVEYS

2.1. Aerial Mapping

Aerial mapping was included under a separate Small Professional Services contract with the CITY.

2.2. Field Surveys

All surveys shall conform to the SCDOT's Preconstruction Survey Manual (latest version) and The Standards of Practice for Land Surveying in South Carolina. These services must be under the direct supervision of and certified by a registered South Carolina Professional Land Surveyor. Consultant shall employ proper quality control measures to ensure accuracy of the field survey deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

The Survey Limits will include:

- Folly Road from 100 feet south of the intersection with Albemarle Road to the merge with US 17.
- Albemarle Road from the intersection with Folly road, south to 100' to the south of the intersection with Croghan Spur.
- US 17 from the merge with Folly Road to 200 feet east of the off ramp to Lockwood Drive.
- US 17 off ramp to Lockwood Drive – to the intersection with Lockwood Drive and full limits of the slip ramp to Lockwood Drive Southbound.
- Lockwood Drive from the intersection with Spring Street and extending 1200 feet south along Lockwood Drive.
- Bee Street from the intersection with Lockwood Drive to the intersection with Charleston Center Drive.
- West Ashley Greenway/Folly Road/Wesley Drive Intersection.
- West Ashley Greenway/Wappoo Road

2.2.14. Bathymetric Surveys*

CONSULTANT will perform bathymetric surveys of the Ashley River. Surveys shall extend 2500 ft. downstream of the US 17 Northbound Bridge, and 2500 ft. upstream of the US 17 Southbound Bridge. The approximate 250' area between the two bridges will be surveyed.

2.2.15. Survey Coordination and File Compilation*

CONSULTANT will combine survey files from field surveying subconsultant, aerial mapping and bathymetric surveys. Combined files will include planimetric survey, topographic breakline data, and digital terrain model.

2.2.16. Deliverables:

- One (1) digital copy of Planimetric survey data (2D) in Microstation format.

- One (1) digital copy of Topographic Breakline data (3D) in Microstation format.
- One (1) digital copy of Digital Terrain Model in Microstation format.
- Digital file name conventions will follow the SCDOT survey manual specifications.

10. SUBSURFACE UTILITY ENGINEERING (SUE)

10.1. SUE Work

The CONSULTANT shall perform designating services (Quality Level B, C and D) for the areas described in the Survey Limits detailed under Section 2.2. Field Survey. For the purpose of this Agreement, "designate" shall be defined as indicating, by marking, the presence and approximate horizontal position of the subsurface utilities by the use of geophysical prospecting techniques. The CONSULTANT shall provide these services as an aide in the design of right-of-way and construction plans for the project. Before SUE work commences the plan shall to be coordinated with the CITY project manager. Consultant shall employ proper quality control measures to ensure accuracy of the SUE deliverables as these deliverables will be provided as part of the design-build contract in Attachment B of the RFP as supplemental project design criteria.

Unless specifically stated otherwise, the CONSULTANT shall adhere to the ASCE Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data (CI/ASCE 38-02).

10.2. Designating Services

- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'C' information for approximately 7,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the completion of Quality Level 'B' information for approximately 26,000 LF of underground utilities.*
- Provide all equipment, personnel and supplies necessary for the accurate recording of information for approximately **60** aerial pole utilities.*
- Conduct appropriate records and as-built plans research and investigate site conditions.*
- Obtain all necessary permits from city, county, state or any other municipal jurisdictions to allow CONSULTANT personnel to work within the existing streets, roads and rights-of-way.*
- Designate the approximate horizontal position of existing utilities by paint markings in accordance with the APWA Uniform Color Code scheme along the utility and at all bends in the line in order to establish the trend of the line. All utilities shall be designated as well as their corresponding lateral lines up to the point of distribution, existing right-of-way limits, or whichever is specifically requested and scoped for each individual project.*
- Survey designating marks, which shall be referenced to project control provided by the surveyor of record.*
- Draft survey information using SCDOT CADD guidelines for Subsurface Utility Engineering consultants (latest version).*
- Final review and seal of all appropriate work by a professional engineer and/or land surveyor licensed in South Carolina in responsible charge of the project.*

- When requested, provide reasonable assistance to the CONSULTANT in obtaining plans showing the project limits, alignment, centerline, rights-of-way limits (existing and proposed), project controls and other data for selected projects.
- Provide notification to CITY and key SCDOT District personnel concerning the upcoming SUE services to be provided by the CONSULTANT.

10.3. Deliverables:

- Provide in current SCDOT CADD standard of designation (SUE Quality Level C, B & Aerial) data e-files tied to project survey control for Utility Coordination Sheets.*

MANHOUR & FEE ESTIMATE WORKBOOK

SETUP 1

MFE Version 3.0.9

Project Information

Project Name	**Ashley River Bike-Pedestrian Bridge**
Project Phase or Segment	**Design Build Prep and Design Review**
Project Location	**Charleston, SC**
CM Number/Descriptor	
Contract Designation	

Consultant Information

Firm Name	**McKim & Creed**
Certified DBE ?	No
Reviewer Name	
Submittal Date	
Estimate Type	**Subconsultant**

Task Identification

	Number	Description
	01	Project Organization and Management (inactive)
✓	**02**	**Aerial Mapping & Field Surveys**
	03	Traffic Studies & Modeling (inactive)
	04	Environmental Services (inactive)
	05	Roadway & Path Design (inactive)
	06	Structural Design (inactive)
	07	Hydrology & Hydraulic Design (inactive)
	08	Geotechnical Services (inactive)
	09	Utility Coordination (inactive)
✓	**10**	**Subsurface Utility Engineering (SUE)**
	11	Right of Way (inactive)
	12	Support During Development of RFQ/RFP (inactive)
	13	Support During Procurement (inactive)
	14	Design Plan Review Organization & Management (inactive)
	15	Roadway & Path Design Review (inactive)
	16	Structural Design Review (inactive)
	17	Hydraulic Design Review (inactive)
	18	Geotechnical Design Review (inactive)
	19	Traffic Engineering Review (inactive)
	20	Design Contingency (inactive)
	21	
	22	
	23	
	24	
	25	

Labor Multipliers

Overhead Rate	**180.84 %**	*a*
FCCM Rate	**0.59 %**	*b*
Profit Rate	**10.00 %**	*c*
Combined Multiplier	**3.0951**	*(1 + a)*(1 + c) + b*

Staff Classifications

All staff classifications and base rates should be entered on "Setup 2"

Non-salary Direct Expenses

Expense descriptions, units and unit rates should be entered on "Setup 3"

Subconsultant Roster

Subconsultant	Certified DBE ?

Details of subconsultant involvement should be added on "Setup 4"

Geotechnical Testing Direct Expenses

	Assigned to :
Testing Direct Expenses, Worksheet 1	-
Testing Direct Expenses, Worksheet 2	-
Testing Direct Expenses, Worksheet 3	-

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
02	Aerial Mapping & Field Surveys	$ 19,842.08	$ 3,255.10	$ -	$ 23,097.18	31.2%
03	Traffic Studies & Modeling (inactive)	$132950.57 (i)	$17375 (i)	$0 (i)	$150325.57 (i)	
10	Subsurface Utility Engineering (SUE)	$ -	$ 50,820.00	$ -	$ 50,820.00	68.8%
	Totals	$ 19,842.08	$ 54,075.10	$ -	$ 73,917.18	

McKim & Creed

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
02	Aerial Mapping & Field Surveys	$ 6,410 72	$ 11,593 14	$ 1,800 40	$ 37 82	$ 19,842 08	$ 3,255 10	$ 23,097 18
03	Traffic Studies & Modeling (inactive)	$42954.62 (i)	$77679.14 (i)	$12063.38 (i)	$253.43 (i)	$132950.57 (i)	$17375 (i)	$150325.57 (i)
10	Subsurface Utility Engineering (SUE)	$ -	$ -	$ -	$ -	$ -	$ 50,820 00	$ 50,820 00
	Totals	$ 6,410 72	$ 11,593 14	$ 1,800 40	$ 37 82	$ 19,842 08	$ 54,075 10	$ 73,917 18
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
McKim & Creed	$ 73,917.18		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $73,917.18		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	6,410.72
B - Overhead [A x 1.8084]	$	11,593.14
C - Profit [(A+B) x 0.1]	$	1,800.40
D - FCCM [A x 0.0059]	$	37.82
E - Labor Total	$	19,842.08
F - Total Non-Salary Direct Expenses	$	54,075.10
G - Subconsultant Fees	$	-
Fee Total	$	73,917.18

fee total less profit $72,116 78

Prepared by: _____

02

Task 02: Aerial Mapping & Field Surveys

Manhours

Staff Classification	Project Manager	Sr. Land Surveyor	Jr. Land Surveyor/LSIT	Sr. Survey Technician	Survey Technician	Survey Crew Chief	Survey Instrument Man	Survey Rodman	Administrative Assistant							Manhour Totals
Manhour Totals by Classification	11	8		69	50	40	40		5							223

Sub-task																	
2.10	Aerial Mapping	3			19											22	9.9%
2.2.14	Bathymetric Surveys	8			10	50	40	40		5						153	68.6%
2.2.15	Survey Coordination and File Compilation		8		40											48	21.5%

Estimate for this task prepared by Nick Miguez

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
2.10	Aerial Mapping	22	Hydrographic survey of river is pre-determined corridor
2.2.14	Bathymetric Surveys	153	Merging, Lidar, Hydrographic,SUE and Convental Survey Data
2.2.15	Survey Coordination and File Compilation	48	Aerial Mapping and processing of additioanl stand alone intersections

Estimate for this task prepared by Nick Miguez

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (180.84%)	Profit (0.10)	FCCM (0.59%)	Labor Total
Project Manager	11	$ 47.81	$ 525.91	$ 951.06	$ 147.70	$ 3.10	$ 1,627.77
Sr. Land Surveyor	8	$ 49.90	$ 399.20	$ 721.91	$ 112.11	$ 2.36	$ 1,235.58
Jr. Land Surveyor/LSIT		$ 32.52	$ -	$ -	$ -	$ -	$ -
Sr. Survey Technician	69	$ 34.99	$ 2,414.31	$ 4,366.04	$ 678.04	$ 14.24	$ 7,472.63
Survey Technician	50	$ 23.79	$ 1,189.50	$ 2,151.09	$ 334.06	$ 7.02	$ 3,681.67
Survey Crew Chief	40	$ 27.00	$ 1,080.00	$ 1,953.07	$ 303.31	$ 6.37	$ 3,342.75
Survey Instrument Man	40	$ 17.92	$ 716.80	$ 1,296.26	$ 201.31	$ 4.23	$ 2,218.60
Survey Rodman		$ 15.75	$ -	$ -	$ -	$ -	$ -
Administrative Assistant	5	$ 17.00	$ 85.00	$ 153.71	$ 23.87	$ 0.50	$ 263.08
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ 6,410.72 (A)	$ 11,593.14 (B)	$ 1,800.40 (C)	$ 37.82 (D)	$ 19,842.08 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Per Diem, with Overnight Stay	4	days	@	$ 71.00	per day	$ 284.00
Lodging	4	nights	@	$ 164.00	per night	$ 656.00
Mileage	548	miles	@	$ 0.575	per mile	$ 315.10
Boat	4	days	@	$ 500.00	per day	$ 2,000.00
			Task Total for Non-salary Direct Expenses			$ 3,255.10 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		(G)	

Fee Summary for Task

A	Direct Labor	$ 6,410.72
B	Overhead [A x 1.8084]	$ 11,593.14
C	Profit [(A+B) x 0.1]	$ 1,800.40
D	FCCM [A x 0.0059]	$ 37.82
E	Labor Total	$ 19,842.08
F	Non-salary Direct Expenses	$ 3,255.10
G	Subconsultant Fees	
	Task Total	$ 23,097.18

$23,097.18

Estimate for this task prepared by Nick Miguez

10

Task 10: Subsurface Utility Engineering (SUE)

Manhours

Staff Classification	Project Manager														Manhour Totals
Manhour Totals by Classification	-														
Sub-task															
10.10 Designating (see direct expenses)															

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
10.10 Designating (see direct expenses)		

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (140.84%)	Profit (10.05%)	FCCM (0.59%)	Labor Total
Project Manager		$ 47.81	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor			$ - (A)	$ - (B)	$ - (C)	$ - (D)	$ - (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	1,600	miles	@	$ 0.575	per mile	$ 920.00
Quality Level B	26,000	feet	@	$ 1.60	per foot	$ 41,600.00
Quality Level C	7,000	feet	@	$ 0.65	per foot	$ 4,550.00
Utility Poles	60	each	@	$ 62.50	per each	$ 3,750.00
			Task Total for Non-salary Direct Expenses			$ 50,820.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ -
B	Overhead [A x 1.8084]	$ -
C	Profit [(A+B) x 0.1]	$ -
D	FCCM [A x 0.0059]	$ -
E	Labor Total	$ -
F	Non-salary Direct Expenses	$ 50,820.00
G	Subconsultant Fees	$ -
	Task Total	$ 50,820.00

$50,820.00

Mid Atlantic Drilling

Mid-Atlantic Drilling, Inc.
PO Box 315 Carolina Beach NC 28428
(910) 458-5020
Cost Estimate

Date: August 3, 2020

Project Name: Ashley River Pedestrian Bridge

Project Number:

Project Location: Charleston, SC

Client: HDR, Inc.

Client Contact: Lila Leion, PE, PhD

QUANTITY	UNITS	DESCRIPTON	UNIT PRICE	LINE TOTAL
4	Each	Mobilization & Demobilization (per trucking company)	$5,000.00	$20,000.00
8	Daily	Barge (SPT) 2@200ft	$5,000.00	$40,000.00
12	Daily	Marsh Buggy (SPT) 740ft	$5,000.00	$60,000.00
7	Daily	Marsh Buggy (CPT) 500ft	$5,000.00	$35,000.00
	Daily	Downtime day rate caused by inclement weather	$2,500.00	TBD
2	Each	*Local low boy to move buggy to other side of bridge*	$2,500.00	$5,000.00
		Estimated Total		**$160,000.00**

**Please Read below before signing/accepting cost estimate:*

- ***The day rate is in an estimated time given to complete the anticipated scope of work, if more time is needed once on site to complete the original scope this will be addressed at that time, if client agrees to continue at the $5000.00 per day rate our services will continue, if not our services will end. If additional work is added once on site the day rate of $5000.00 per day will be charged accordingly. A day Rate of $2500.00 will be charged for down time due to inclement weather.***
- *Day Rate Includes: Mobilization & Demobilization for Mid-Atlantic Drillings crew(s) subsistence, drilling, stand by time (safety meetings), difficult moving, etc. What is not included will be listed (if known) in the cost estimate such as cranes, boom trucks, trucking companies for hauling larger equipment. Such equipment may be needed once onsite that was not anticipated prior to mobilizing. If additional equipment is needed and paid by Mid-Atlantic the cost will be passed along to the client with an additional 20% surcharge, unless paid by client directly.*
- ***Day rate conditions: our day rate begins from the time we leave Wilmington NC till we return, the day rate includes Mondays (or start day) when our crew(s) will be traveling to the site and on Fridays or (return /end day) to Wilmington to arrive home at a reasonable hour (5:00pm) This is put into place since the mob/demob is included into the day rate.***
- ***Crews are not required to work more then 10 hours straight time per day (lunch breaks are mandatory)***
- **Utilities must be called in and cleared by our client before our arrival either by a private locate company or by the states locate center.**
- **Payment within 90 days of invoice submittal**
- price is subject to change

To accept this quotation & terms sign here & return:

*(Name & Title)*_____

Please Print Name & Date: _____

Project ID:
County:

South Carolina Department of Transportation

Date Prep.:
Prepared By:
Org:

ON-CALL GEOTECHNICAL COST ESTIMATE

Type Work (FIELD)	Procedure	Procedure Description	Pay Unit	Quantity	Unit Rates	Total Cost
Mobilization						
a. Truck/Trailer Drill Rig and Crew			$ per mile		$0.00	$0.00
b. Track/Rubber-Tire ATV Drill Rig and Crew; and barge mobilized over land			$ per mile		$0.00	$0.00
c. Barge mobilized over water			$ per hour		$0.00	$0.00
Use of All-terrain Vehicle			$ per day		$0.00	$0.00
Use of Swamp/Marsh Buggy			$ per day	19	$5,000.00	$95,000.00
Crane			$ per hour		$0.00	$0.00
Barge						
a. small			$ per day		$0.00	$0.00
b. large			$ per day	8	$5,000.00	$40,000.00
Difficult Moving/ Standby/ Expendables			$ per hour		$0.00	$0.00
Private Utility Locating			$ per hour		$0.00	$0.00
Traffic Control						
a. Shoulder work > 15 ft.			$ per day		$0.00	$0.00
b. Shoulder work 1-15 ft.			$ per day		$0.00	$0.00
c. Lane Closure			$ per day		$0.00	$0.00
d. Freeway/Expressway Shoulder Closure			$ per day		$0.00	$0.00
e. Freeway/Expressway Lane Closure			$ per day		$0.00	$0.00
Light Plant			$ per day		$0.00	$0.00
Bridge Deck Coring			$ per hole		$0.00	$0.00
Pavement Coring			$ per hole		$0.00	$0.00
Survey Crew and Equipment			$ per hour		$0.00	$0.00
Hand Clearing			$ per hour		$0.00	$0.00
Mechanized Clearing			$ per hour		$0.00	$0.00
Auger Probes or Wash Borings			$ per foot		$0.00	$0.00
Soil Test Borings on Land with Standard Penetration Testing (SPT-N)	AASHTO T206, AASHTO T306 (ASTM D1586, ASTM D6151, ASTM D4633)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils				
a. Borings from ground surface to a depth of 150 feet			$ per foot		$0.00	$0.00
b. Borings from 150 feet to 250 feet			$ per foot		$0.00	$0.00
c. Borings from 250 feet to 550 feet	ASTM D2113	Triple-Tube Soil Coring	$ per foot		$0.00	$0.00

Project Name: **Date:**

Project ID:

Soil Test Borings Over Water with Standard Penetration Testing (SPT-N)	AASHTO T206 (ASTM D1586, ASTM D4633)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per foot		$0.00	$0.00
Standard Penetration Tests (Additional)	AASHTO T206 (ASTM D1586)	Standard Method of Test for Penetration Test & Split Barrel Sampling of Soils	$ per test		$0.00	$0.00
Piezocone Penetration Test (CPTu)	ASTM D 5778	Standard Test Method for Electronic Friction Cone and Piezocone Penetration Testing of Soils	$ per foot		$0.00	$0.00
CPTu Seismic Test	ASTM D 7400	Standard Test Methods for Downhole Seismic Testing	$ per test		$0.00	$0.00
CPTu Pore Pressure Dissipation Test			$ per hour		$0.00	$0.00
Field Vane Shear Tests	AASHTO T223 (ASTM D2573)	Standard Method of Test for Field Vane Shear Test in Cohesive Soil	$ per test		$0.00	$0.00
Flat Plate Dilatometer Testing	ASTM D6635	Standard Test Method for Performing the Flat Plate Dilatometer	$ per foot		$0.00	$0.00
Double-Ring Infiltrometer Test	ASTM D 3385	Standard Test Method for Infiltration Rate of Soils in Field Using Double-Ring Infiltrometer	$ per test		$0.00	$0.00
Manual (Hand) Auger Borings			$ per hour		$0.00	$0.00
Dynamic Cone Penetrometer Tests	Sowers & Hedges, 1966 (ASTM D6951)	Standard Test Method for Use of the Dynamic Cone Penetrometer in Shallow Pavement Applications	$ per hour		$0.00	$0.00
Disturbed (Bulk) Soil Samples			$ per sample		$0.00	$0.00
Test Pits			$ per hour		$0.00	$0.00
Undisturbed (Shelby Tube) Soil Sampling						
a. 3" tube (Fixed Head Sampler)	AASHTO T207 (ASTM D1587)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample		$0.00	$0.00
b. 3" tube (Alternative Sampler)	AASHTO T207 (ASTM D1587, ASTM D6519)	Standard Method of Test for Thin Walled Tube Sampling of Soils	$ per attempted sample		$0.00	$0.00
Rock Coring						
a. Rock Coring from ground surface to a depth of 150 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
b. Rock Coring from 150 feet to 500 feet	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
c. Rock Coring from ground surface to a depth of 150 feet for seismic downhole testing	AASHTO T225 (ASTM D2113)	Standard Method of Test for Diamond Core Drilling for Site Investigation	$ per foot		$0.00	$0.00
Casing						
a. 4" PVC			$ per foot		$0.00	$0.00
b. 4" Steel			$ per foot		$0.00	$0.00

Project Name: **Date:**

Project ID:

Grout Seal of Test Holes (SPT, CPT, DMT, auger/wash borings, geophysical holes, rock core holes)			$ per foot		$0.00	$0.00
Geophysical Testing using Spectral Analysis of Surface Waves/Multi-channel Analysis of Surface Waves/Refraction Microtremor			$ per test		$0.00	$0.00
Geophysical Testing using Downhole Methods	ASTM D7400	Standard Test Methods for Downhole Seismic Testing	$ per test		$0.00	$0.00
Geophysical Testing using Suspension Logging methods	ASTM D5753	Standard Guide for Planning and Conducting Borehole Geophysical Logging	$ per foot		$0.00	$0.00
Specialized Geophysical Testing (Crosshole Shear Wave Velocity Method, Seismic Refraction, field Electric Resistivity, Seismic Reflectivity, Gamma/Spontaneous Potential, Ground Penetrating Radar, Optical/Acoustic Televiewer, etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00
Installation and Monitoring of geotech. Instr. (inclinometers, piezometers, settlement plates, vibration monitoring, etc.)	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00

SUBTOTAL = $135,000.00
% of TOTAL = 100.00

Project Name: **Date:**

Project ID:

Type Work (LAB)	Procedure	Procedure Description	Pay Unit	Quantity	Unit Rates	Total Cost
UD Preparation			$ each		$0.00	$0.00
Moisture Content	AASHTO T265 (ASTM D2216)	Standard Method of Test for Laboratory Determination of Moisture Content of Soils	$ each		$0.00	$0.00
Atterberg Limits	AASHTO T89 AASHTO T90 (ASTM D4318)	Standard Method of Test for Determining the Liquid Limit of Soils And Determining the Plastic Limit and Plasticity Index of Soils	$ each		$0.00	$0.00
Shrinkage Limits	AASHTO T92 (ASTM D4933)	Standard Method of test for Determining the Shrinkage Factors of Soils	$ each		$0.00	$0.00
Swell Test	AASHTO T258	Standard Method of Test for Determining Expansive Soils	$ each		$0.00	$0.00
Grain Size Analysis						
a. Wash 200	AASHTO T11 (ASTM D1140)	Standard Method of Test for Materials Finer Than 75-µm (No. 200) Sieve in Mineral Aggregates by Washing	$ each		$0.00	$0.00
b. Grain Size	ASTM D6913	Standard Method of Test for Particle Size Analysis of Soils	$ each		$0.00	$0.00
c. Hydrometer	ASTM D7928	Standard Method of Test for Particle Size Analysis of Soils	$ each		$0.00	$0.00
d. Elutriation	SC T-34	Mechanical Analysis of Soils (Elutriation Method)	$ each		$0.00	$0.00
Percentage of Fractured Particles in Coarse Aggregates	ASTM D5821	Standard Test Method for Determining the Percentage of Fractured Particles in Coarse Aggregates	$ per bulk sample		$0.00	$0.00
Specific Gravity	AASHTO T100 (ASTM D854)	Standard Method of Test for Specific Gravity of Soils	$ each		$0.00	$0.00
Unit Weight						
a. Standard Proctor	AASHTO T99 (ASTM D698)	Standard Method of Test for Moisture-Density Relations of Soils Using a 5.5 lb. Rammer and a 12-in. Drop	$ each		$0.00	$0.00
b. Modified Proctor	AASHTO T180 (ASTM D1557)	Standard Method of Test for Moisture-Density Relations of Soils Using a 10 lb. Rammer and an 18-in. Drop	$ each		$0.00	$0.00
c. Maximum Index Density and Unit Weight of Soils	ASTM D4253	Standard Method of Test for Maximum Index Density and Unit Weight of Soils Using a Vibratory Table	$ each		$0.00	$0.00

Project Name: **Date:**

Project ID:

d. Minimum Index Density and Unit Weight of Soils	ASTM D4254	Standard Method of Test for Minimum Index Density and Unit Weight of Soils Using and Calculation of Relative Density	$ each		$0.00	$0.00
California Bearing Ratio	AASHTO T193 (ASTM D1883)	Standard Method of Test for The California Bearing Ratio	$ each		$0.00	$0.00
Unconfined Compressive Strength of Cohesive Soil	AASHTO T208 (ASTM D2166)	Standard Method of Test for Unconfined Compressive Strength of Cohesive Soil	$ each		$0.00	$0.00
Compressive Strength of Rock Cores	ASTM D7012	Standard Test for Compressive Strength and Elastic Moduli of Intact Rock Core Specimens under Varying States of Stress and Temperatures	$ each		$0.00	$0.00
LA Abrasion						
a. Small-Size Coarse Aggregate	ASTM C131	Standard Test Method for Resistance to Degradation of Small-Size Coarse Aggregate by Abrasion and Impact in the Low Angeles Machine	$ each		$0.00	$0.00
b. Large-Size Coarse Aggregate	ASTM C535	Standard Test Method for Resistance to Degradation of Large-Size Coarse Aggregate by Abrasion and Impact in the Low Angeles Machine	$ each		$0.00	$0.00
Soundness of Aggregates	ASTM C88	Standard Test Method for Soundness of Aggregates by Use of Sodium Sulfate or Magnesium Sulfate	$ each		$0.00	$0.00
Permeability Test						
a. Constant Head	AASHTO T215	Standard Method of Test for Permeability of Granular Soils (Constant Head)	$ each		$0.00	$0.00
b. Falling Head	ASTM D5856	Standard Test Method for Measurement of Hydraulic Conductivity of Porous Material Using a Rigid-wall, Compaction-mold Permeameter	$ each		$0.00	$0.00
c. Flexible Wall	ASTM D5084	Standard Test Method for Measurement of Hydraulic Conductivity of Saturated Porous Material Using a Flexible Wall Permeameter	$ each		$0.00	$0.00
Ignition Loss	SC T-36	Procedure for Determining % Ignition Loss of Inorganic Soils	$ each		$0.00	$0.00
Triaxial Shear						
a. Unconsolidated Undrained (UU)	AASHTO T296 (ASTM D2850)	Standard Method of Test for Unconsolidated, Undrained Compression Strength of Cohesive Soils in Triaxial Compression	$ each		$0.00	$0.00

Project Name: **Date:**

Project ID:

b. Consolidated Undrained with pore pressure measurement (CU w/pp)	AASHTO T297 (ASTM D4767)	Standard Method of Test for Consolidated, Undrained Triaxial Compression Test on Cohesive Soils	$ each		$0.00	$0.00
c. Consolidated Drained (CD)	ASTM D7181	Standard Test Method for Consolidated Drained Triaxial Compression Test for Soils	$ each		$0.00	$0.00
Resonant Column	ASTM D4015	Standard Test Methods for Modulus and Damping of Soils by Resonant-Column Method	$ each		$0.00	$0.00
Torsional Shear						
a. Drained Residual Shear Strength	ASTM D6467	Standard Test Method for Torsional Ring Shear Test to Determine Drained Residual Shear Strength of Cohesive Soils	$ each		$0.00	$0.00
b. Drained Fully Softened Shear Strength	ASTM D7608	Standard Test Method for Torsional Ring Shear Test to Determine Drained Fully Softened Shear Strength and Nonlinear Strength Envelop of Cohesive Soils (using normally consolidated specimen) for Slopes with No Preexisting Shear Surface	$ each		$0.00	$0.00
Direct Shear	AASHTO T236 (ASTM D3080)	Standard Method of Test for Direct Shear Test of Soils Under Consolidated Drained Conditions	$ each		$0.00	$0.00
Consolidation						
a. Consolidation Test (16 load increments)	AASHTO T216 (ASTM D 2435)	Standard Method of Test for One Dimensional Consolidation Properties of Soils	$ each		$0.00	$0.00
b. Additional load increments			$ each		$0.00	$0.00
c. Additional test time			$ per day		$0.00	$0.00
Organic Content	AASHTO T267 (ASTM D2974)	Standard Method of Test for Determination of Organic Content in Soils by Loss on Ignition	$ each		$0.00	$0.00
pH						
a. soil	AASHTO T289 (ASTM G51)	Standard Method of Test for Determining pH of Soil for Use in Corrosion Testing	$ each		$0.00	$0.00
b. water	ASTM D1293	Standard Test Methods for pH of Water	$ each		$0.00	$0.00
Chloride Content						
a. soil	AASHTO T291	Standard Method of Test for Determining Water-Soluble Chloride Ion Content in Soil	$ each		$0.00	$0.00
b. water	ASTM D512	Standard Test Methods for Chloride Ion in Water	$ each		$0.00	$0.00
Sulfate Content						

Project Name: **Date:**

Project ID:

a. soil	AASHTO T290 (ASTM C1580)	Standard Method of Test for Determining Water-Soluble Sulfate Ion Content in Soil	$ each		$0.00	$0.00
b. water	ASTM D516	Standard Test Methods for Sulfate Ion in Water	$ each		$0.00	$0.00
Resistivity						
a. soil	AASHTO T288	Standard Method of Test for Determining Minimum Laboratory Soil Resistivity	$ each		$0.00	$0.00
b. water	ASTM D1125	Standard Test Methods for Electrical Conductivity and Resistivity of Water	$ each		$0.00	$0.00
Bituminous Mixture Extraction	SC-T-75	Standard Method of Test for Determination of Asphalt Binder Content for Asphalt Paving Mixtures by the Ignition Oven	$ each		$0.00	$0.00
Aggregate Sieve Analysis	SC-T-4	Standard Method of Test for Sieve Analysis of Fine and Coarse Aggregates	$ each		$0.00	$0.00
PLM asbestos Bulk Sample Analysis	EPA 600	Method for the Determination of Asbestos in Bulk Building Materials	$ each		$0.00	$0.00
TEM Asbestos Bulk Sample Analysis	ASTM D 6281	Standard Test Method for Airborne Asbestos Concentration in Ambient and Indoor Atmospheres as Determined by Transmission Electron Microscopy Direct Transfer (TEM)	$ each		$0.00	$0.00
XRF Analysis of Lead	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ per day		$0.00	$0.00
Total Lead Analysis	Per SCDHEC Regulatory Requirements	Determining Lead Content	$ each		$0.00	$0.00
					SUBTOTAL =	**$0.00**
					% of TOTAL =	**0.00**

Project Name: **Date:**

Project ID:

Hourly Rate Schedule			Pay Unit	Quantity	Unit Rates	Total Cost
Senior Principal			$ per hour		$0.00	$0.00
Principal/Project Manager			$ per hour		$0.00	$0.00
Senior Geotechnical Engineer			$ per hour		$0.00	$0.00
Geotechnical Engineer			$ per hour		$0.00	$0.00
Junior Geotechnical Professional			$ per hour		$0.00	$0.00
Project Geologist			$ per hour		$0.00	$0.00
Engineering Technician			$ per hour		$0.00	$0.00
Senior Environmental Specialist			$ per hour		$0.00	$0.00
Environmental Specialist			$ per hour		$0.00	$0.00
Graphics Designer			$ per hour		$0.00	$0.00
Administrative Assistant			$ per hour		$0.00	$0.00
Lodging			$ per day		$0.00	$0.00
Meals			$ per day		$0.00	$0.00
Travel			$ per mile		$0.00	$0.00
Outside Services Associated with Field and Laboratory Work	AASHTO/ASTM	Applicable AASHTO or ASTM procedure and manufacturer's instruction for equipment in use.			$0.00	$0.00
					SUBTOTAL =	**$0.00**
					% of TOTAL =	**0.00**
					GRAND TOTAL =	**$135,000.00**

PAN

PAN, Inc. has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

11. RIGHT OF WAY

11.1. Right of Way Acquisition Services

11.1.1. The **CONSULTANT** shall perform all right-of-way acquisition services in accordance with the following tasks for up to ten (10) parcels requiring acquisition or permissions and relocation if need:

11.1.2. Perform all title searches for properties which must be acquired to construct the project and provide to the DEPARTMENT a Preliminary and Final Certificate of Title signed by a licensed South Carolina attorney (as required by the **SCDOT**'s Right of Way Manual). Titles certificates shall advise all names of any parties that should be included for payments, and if the investigation reveals that condemnation is necessary to clear title, it shall provide names of all parties that should be served with condemnation, provide recording information for those parties who have an interest in the property and advise whether or not advertisement is required. Preliminary title abstracts must be provided prior to the property being appraised.*

11.1.3. All offers of just compensation will be based on a written approved appraisal unless prior approval is given to the Contractor by CITY. If CITY decides to utilize cost estimate offers, CITY will prepare the cost estimates and provide Contractor with the approved right of way cost estimate. CITY may allow offers to be made based on the cost estimates on tracts estimated to be $20,000 or less and determined by CITY to be a non-complicated. In the event the cost estimate offer is rejected by the property owner, a written appraisal shall be required.
CITY will be responsible for reviewing and approving all appraisals and setting just compensation. Appraisals will be reviewed and released within 15 business days of receipt. If appraisal review cannot be completed within 15 days because of deficiencies of the appraisal, the Right of Way Consultant will be notified immediately of the appraisal status. CITY will provide appraisal reviews complying with the technical review guidelines of SCDOT Right of Way Appraisal Manual. The review appraiser will be an CITY staff appraiser or a review appraiser from SCDOT's approved list. CITY will be responsible for review appraiser costs.

11.1.4. Acquire in accordance with all state laws and regulations, both Federal and State, and in the name of the **CITY**, the right of way necessary to construct the project. Title shall be in fee simple absolute and have a recordable warranty deed unless otherwise authorized by the **CITY**. The title shall be filed, within seven (7) days of payment to the landowner, in the ROD office in Richland County and the original file stamped instrument will be returned to the **CITY**. The **CONSULTANT** is responsible for all cost associated with recording of the deeds.*The Consultant shall submit Deed for property owner payment within 30 days of the execution date on the Deed. If this is not possible, the Consultant must submit in writing to SCDOT the reasoning and a new proposed resolve date.

11.1.5. Prepare exhibits in accordance with **SCDOT**'s exhibit preparation guide.*

11.1.6. In the event of condemnation the necessary documents as required by the Eminent Domain Procedure Act Sections 28-2-10 et. Seg., South Carolina Code of Laws (1976) as amended will be prepared and submitted electronically to the County's attorney as direct, for the attorney to file the case with the Clerk of Court. The procedure for Condemnation shall be by way of trial after rejection of the amount tendered as provided in Section 28-2-240.

11.1.7. Retain all records dealing with property acquisition and all other costs associated with this project for three (3) years after the final acquisition for the project.

11.1.8. **CONSULTANT** is responsible for establishing and maintaining Quality Control and Quality Assurance procedures for the entire right of way acquisition process.*The Consultant Shall return all corrections to SCDOT within 15 business days from date of returned to the Consultant.

PAN
Property Acquisitions & Negotiations

Ashley River Crossing
Fee Proposal
August 7, 2020

Negotiations: 10 Tracts @ $3,500.00 per tract =	$35,000.00
Title Work: 10 Tracts @ $450.00 per tract =	$ 4,500.00
Appraisals: 10 Tracts @ $2,000.00 per tract =	$20,000.00
*Appraisal Review: 10 Tracts @ $450.00 per tract =	$4,500.00
Total =	**$64,000.00**

*Appraisal reviews may not be necessary if no federal money is involved

David S. Link
PAN, Inc.

5179 Sunset Boulevard – Lexington, SC 29072 – (803) 708-4721

Providence Engineering Consultants

PEC will provide the services highlighted in blue below.

1. ENVIRONMENTAL SERVICES

The CONSULTANT shall be responsible for NEPA compliance in accordance with 23 CFR Parts 771 and 772, as well as any related, current/latest guidance promulgated by Federal Highway Administration (FHWA), as of the date of executed contract. In addition the CONSULTANT shall be responsible for delineating Waters of the U.S. and completing a Preliminary Jurisdictional Determination.

4.1. Public Involvement*

The CONSULTANT shall be responsible for developing a public involvement plan to effectively involve the public in the project's decision-making process as outlined in SCDOT's Public Involvement Policy. The following activities are to be included in the plan:

~~1. Project website hosted on the CITY's website~~
~~2. Press release~~
3. One (1) public information meeting (PEC PROVIDING STAFF)
4. One (1) stakeholder meeting(PEC PROVIDING STAFF)
5. Two (2) community meetings
~~6. One (1) meeting with marina operators to discuss in water work and navigation restrictions during construction.~~

12. DEVELOPMENT OF THE RFQ/RFP

12.1. Development of the RFQ*

CONSULTANT, with support from the CITY, shall develop the RFQ to follow SCDOT Design-Build RFQ format to include the following sections:

- Introduction
- Project Information and Procurement Overview
- Contents of Statement of Qualifications (SOQ)
- Evaluation Process
- SOQ Submittal Requirements
- Procurement Phase 2
- Conflict of Interest
- Miscellaneous

12.1.1. Coordinate with the CITY to determine minimum qualifications to be met for design/build teams to be considered.

12.1.2. Develop project Risk Matrix and categorize project risks as High, Moderate, and Low. Describe why the risk is critical, indicate what impact it will have on the project, and discuss mitigation strategies. (PEC RISK ANALYSIS LIMITED TO ROADWAY RELATED ITEMS)

12.1.3. Organize and provide answers to RFQ questions.

12.1.4. Development of one (1) RFQ addendum.

12.1.5. Support CITY in review of SOQ's and determination of short-listed design-build teams.

12.2. Development of the RFP for Industry Reviw, Final RFP and Addenda*

CONSULTANT, with support from the CITY, shall develop the RFP for Industry Review, Final RFP and addenda to follow SCDOT Design-Build RFP format, including the following sections:

12.2.1 RFP Instructions Section:

- Purpose of RFP
- Project Overview
- General Instructions
- Proposal Development and Submittal
- Evaluation of Proposals
- Selection of Contractor
- General Information
- Milestone Schedule
- Cost Proposal Bid Form
- Non-Collusion Certification
- Equal Employment Opportunity Certification
- Stipend Acknowledgement Form
- Stipend Agreement
- Bid Bond Form

12.2.2 Attachment A – Agreement

12.2.2.1 Exhibit 1 – Cost Proposal Bid Form

12.2.2.2 Exhibit 2 – Schedule of Values (PEC ROADWAY ONLY)

12.2.2.3 Exhibit 3 – Scope of Work (PEC ROADWAY ONLY)

12.2.2.4 Exhibit 4 – Design Criteria

- Roadway
- Structure
- Electrical
- Architectural
- Mechanical
- Hydrology
- Geotechnical
- Traffic
- Environmental
- Project Design Deliverables

12.2.1.2 Exhibit 5 – Special Provisions (PEC WILL PREPARE ROADWAY RELATED SPECIAL PROVISIONS ONLY)

12.2.3 Attachment B – Supplemental Project Design Criteria (PEC LIMITED TO ROADWAY DESIGN CRITERIA ONLY)

12.2.4 Project Information Package
12.2.5 Develop Final RFP
12.2.6 Develop five (5) addenda to Final RFP

13. PROCUREMENT

CONSULTANT shall lead the following tasks with support from the CITY during the procurement of the design-build project:

13.1. Compile, coordinate with the CITY, and respond to RFP for Industry Review and Final RFP questions and clarifications.* (PEC WILL PROVIDE RESPONSES TO ROADWAY RELATED QUESTIONS AND WILL CONSOLIDATE RESPONSES PREPARED BY OTHERS FOR OTHER ITEMS

13.2. Provide technical review and recommendations during reviews of Alternative Technical Concept (ATCs)*. Review by SCDOT for roadways and/or facilities maintained by SCDOT. (PEC LIMITED TO ROADWAY ONLY)

13.3. Provide review of Technical Proposal roadway, bridge, and maintenance of traffic plans.* Reviews by SCDOT for portions of roadways and/or facilities maintained by SCDOT. (PEC LIMITED TO ROADWAY & MOT ONLY)

13.4. Provide review and analysis of bid packages to confirm whether costs – item level and overall – are reasonable.* (PEC LIMITED TO ROADWAY ELEMENTS ONLY)

13.5. Support CITY in evaluation of proposals and selection of design-build contractor.*

14. DESIGN PLAN REVIEW AND ADMINISTRATION

The CONSULTANT shall facilitate design reviews using Bluebeam in accordance with the contract schedule. (PEC WILL REVIEW ROADWAY RELATED DESIGN SUBMITTALS)

The Consultant shall review plans and submittals to verify Contractor's compliance with project criteria, applicable permits and regulatory agencies requirements. Any non-compliance to the design criteria found during the review will be recorded through review comments. Major non-compliance issues discovered during the design review process shall be reported to the CITY immediately. The CONSULTANT will review any changes to design criteria proposed by the Contractor and advise the CITY as to the appropriateness of these changes, including cost and schedule implications to the project. The CONSULTANT is expected to act as an extension of CITY staff and provide possible solutions to issues which arise during design and construction of the project.

The CONSULTANT shall provide a Project Manager/Design Manager that will be responsible for the day-to-day administration of the reviews. The Project Manager/Design Manager will

be responsible for ensuring an appropriate level of review for all phases and disciplines of the project.

The CONSULTANT shall provide a Document Control Manager that will be responsible for keeping a full and complete set of records in the form of a Submittals Matrix which shall indicate dates of receipt and submittal of all design reviews, status of review comments, and dates of comment resolution.

The CONSULTANT may use the Contractor's design calculations when necessary to support the review of the submittals. Routine reviews do not involve independent analyses or calculations to verify the Contractor's work. On an as-needed basis and when approved by the CITY, the CONSULTANT shall: (1) Perform independent analyses when an apparent issue arises on a design element that requires verification of the design calculations; (2) Review the revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction; (3) Review and comment on Shop Plans, Working Drawings, and miscellaneous submittals (RFIs, NCRs, Issue Papers, Technical Special Provisions, and Design Exceptions/Variances).

The CONSULTANT will have a maximum of fifteen business days to complete their initial review and provide comments to Design-Build Contractor and notify the CITY. A business day is considered Monday-Friday not including CITY observed holidays.

The CONSULTANT shall participate in Partnering Meetings with the Design-Build Contractor and shall represent the CITY in Design Coordination Meetings. One-day Partnering Meetings will be held in Charleston, SC. Two-hour Design Coordination Meetings will be held in Charleston, SC or may be accessed via telephone conference call. The CONSULTANT shall attend meetings relating to review, approval and implementation of the Contractor's design.

Review Tasks

Project tasks identified below with an asterisk (*) are expected to be assigned man-hours. Numbers are a total for both sites combined unless otherwise indicated. Specific tasks are enumerated below.

14.1. Project Organization and Management Responsibilities

A. Facilitate Design Review Process*
   i. Create and Manage Submittal and Release for Construction (RFC) folders in ProjectWise. The City does not have ProjectWise; we understand that HDR will provide the City with access.
   ii. Create and Manage Bluebeam session for each submittal
   iii. Manage schedule of design reviews according to the Contract
   iv. Facilitate exchange of comments and responses

B. Manage design reviews including review of comments and communication and coordination with design review team, design-build team, and CITY.*
C. Review Contractor's Contract Deliverables Matrix and Design Review Submittal Schedule*

D. Review and verify Contractor's Quality Control Plan for design, drawings, and specifications *
E. Prepare and submit thirty six (36) Invoices to the CITY. *
F. Miscellaneous Submittals *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) non-conformance report (NCRs)
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

G. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

H. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with the CITY, FHWA, Contractor, and others (assume the *PM/ Design Manager* will attend)
ii. Attend twenty (20) two-hour Design Coordination Meetings (assume PM/Design Manager will attend)
iii. Attend two (2) four-hour Regulatory Agency Meetings (assume PM/Design Manager and one (1) environmental staff will attend)
iv. Attend two (2) Utility Coordination Meetings (assume the PM/Design Manager will attend)

14.2. Roadway/Path Design Review Responsibilities

A. Roadway/Path Design reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

B. Environmental reviews will occur for the following phases:*

i. Preliminary Plans
ii. Right of Way Plans
iii. Final Plans

C. Additional reviews are anticipated on the following miscellaneous submittals: *

i. Review and provide recommendations on forty (40) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.3. Structural Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Approach Structure Plans
ii. Final Approach Structure Plans
iii. Preliminary Movable Span (Structural, Mechanical, and Electrical)
iv. Final Movable Span (Structural, Mechanical, and Electrical)

B. Shop Plan Reviews *

i. Two (2) packages of Prestressed Concrete Girder Shop Plans and Design Calculations
ii. Two (2) packages of Steel Superstructure (Girders, Floorbeams, Stringers) Shop Drawings, Erection Plan, and Design Calculations
iii. Four (4) packages of main (bascule or lift) pier shop drawings (bar lists, assembly, precasting (if applicable)
iv. Two (2) packages of Foundations Construction Drawings and Design Calculations
v. Two (2) packages of Mechanical Systems Shop Drawings
vi. Two (2) packages of Electrical Systems Shop Drawings

vii. Two (2) packages of other bridge component Shop Plans: SIP Formwork, Bearings, Steel Diaphragms, Expansion Joints, Armor Plates, etc.
viii. Four (4) packages of MSE Wall Shop Plans and Design Calculations.

C. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Review and provide recommendations on twenty (20) Requests for Information
ii. Review and provide recommendations on three (3) NCRs
iii. Review and provide recommendations on three (3) Issue Papers
iv. Review and provide recommendations on two (2) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that eight (8) design modifications will be initiated.*

F. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.4. Movable Span Structural, Mechanical, Electrical, & Facilities Design Review Responsibilities

A. Design plan reviews will occur as noted below:*

i. Preliminary Movable Span (Structural, Mechanical, Electrical, and Facilities)
ii. Final Movable Span (Structural, Mechanical, Electrical, and Facilities)

B. Shop Plan Reviews *

i. Structural

a. Two (2) packages of Movable Span Foundations construction drawings and design calculations
b. Four (4) packages of Movable Span pier shop drawings and design calculations (bar lists, assembly, precasting if applicable)
c. Seven (7) packages of Structural Steel (Towers, Girders, Floorbeams, Stringers, Armored Joints, Live Load Bearings, Machinery Supports) shop drawings and design calculations
d. Five (5) packages of other movable bridge component Shop Plans and design calculations: Counterweights, FRP Deck, Platform/Stair Access System.
e. Two (2) packages of Fender Construction Drawings and Design Calculations

ii. Mechanical
a. Two (2) packages of Drive Machinery Drawings and Design Calculations
b. Two (2) packages of Locking Mechanism Drawings and Design Calculations
c. Three (3) packages of System-Specific Machinery Drawings and Design Calculations

iii. Electrical
a. Two (2) packages of Power Distribution Drawings and Design Calculations
b. Two (2) packages of Control Systems Drawings and Design Calculations
c. One (1) package of Cross-Channel Communications and Power Drawings and Design Calculations
d. One (1) package of System-Specific Electrical Drawings and Calculations

iv. Facilities
a. Two (2) packages of Fire and Security Drawings and Design Calculations
b. Three (3) packages of Electrical Drawings and Design Calculations
c. Three (3) packages of Structural Drawings and Design Calculations
d. Three (3) packages of Architectural Drawings and Design Calculations
e. One (1) package of Plumbing Drawings and Design Calculations
f. One (1) package of HVAC Drawings and Calculations

C. Working Drawing Reviews *

i. Twelve (12) packages of temporary structural works (formwork, temporary work platforms, cofferdams, water work plans, crane usage plans, etc.)
ii. Two (2) packages of Erection Plans

D. Miscellaneous Submittals Review *

i. Balance Calculations
ii. O&M Manuals
iii. Four (4) Mechanical Installation Procedures
iv. Two (2) Mechanical Shop Test Procedures
v. One (1) Electrical Installation Procedure
vi. Four (4) Electrical Shop Test Procedures
vii. One (1) Mechanical/Electrical Functional Checkout Procedure
viii. Review and provide recommendations on One Hundred (100) Requests for Information (Structural)
ix. Review and provide recommendations on Twenty-Five (25) Requests for Information (Mechanical)
x. Review and provide recommendations on Twenty-Five (25) Requests for Information (Electrical)
xi. Review and provide recommendations on Twenty-Five (25) Requests for Information (Facilities)
xii. Review and provide recommendations on eight (8) NCR's (Structural)
xiii. Review and provide recommendations on two (2) NCR's (Mechanical)
xiv. Review and provide recommendations on two (2) NCR's (Electrical)
xv. Review and provide recommendations on two (2) NCR's (Facilities)
xvi. Review and provide recommendations on ten (10) Issue Papers
xvii. Strain Gauge Balance Report
xviii. Review and provide recommendations on four (4) Technical Special Provisions (1 document for each discipline)
xix. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform ten (10) independent analyses.

E. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction* It is assumed that sixteen (16) design modifications will be initiated.*

F. Meetings *
i. Prepare for and attend one (1) eight-hour Partnering Meeting, including travel and prep, with the CITY, Contractor, and others
ii. Ten (10) two-hour Design Coordination Meetings (average 2 attendees each)
iii. One (1) Construction Kick-off Meeting
iv. Twenty-five (25) two-hour Construction Coordination Meetings (average 2 attendees each)
v. Ten (10) on-site Construction Progress Meetings

G. Shop/Site Inspections *
i. Three (3) Mechanical shop inspections

ii. Four (4) Electrical shop inspections
iii. Six (6) Structural shop inspections
iv. Six (6) Mechanical site inspections
v. Six (6) Electrical site inspections
vi. Twelve (12) Structural site inspections
vii. Two (2) Mechanical Functional Check-out site inspections (Initial, and Follow-up)
viii. Two (2) Electrical Functional Check-out site inspections (Initial, and Follow-up)

14.5. Hydraulic Design Review Responsibilities

A. Hydraulic Design reviews performed for the entire project limits for each site*

i. Preliminary Roadway Plans and Preliminary Roadway Drainage Report
ii. Preliminary Bridge Plans and Preliminary Bridge Hydraulic Design Report for Ashley River
iii. Right of Way Plans (Roadway/Path) and Final Roadway Drainage Report
iv. Final Bridge Plans and Final Bridge Hydraulic Design Report for Ashley River
v. Final Roadway/Path Plans

B. Additional Project-wide reviews will include: *

i. Signed, completed copy of the SCDHEC Notice of Intent (NOI)
ii. No Impact, CLOMR and LOMR, Ashley River

C. Miscellaneous Submittal Reviews will include (numbers are a total for both sites combined): *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform two (2) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight (8)-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.6. Geotechnical Design Review Responsibilities

A. The following plan reviews will occur as noted in the Anticipated Submittal Section: *

i. Preliminary Roadway Geotechnical Reports
ii. Final Roadway Geotechnical Engineering Reports, including Roadway and Roadway Structures
iii. Preliminary Bridge Geotechnical Report
iv. Final Bridge Geotechnical Engineering Report
v. Geotechnical Bridge Plan Sheets
vi. Geotechnical Roadway Plan Sheets
vii. Two (2) sets of Foundation Installation Plans
viii. Two (2) sets of Foundation Testing Reports

B. Working Drawing Reviews *

i. Four (4) packages of Temporary Shoring Plans and Design Calculations

C. Miscellaneous Submittals Reviews will include:*

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

D. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

E. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

14.7. Traffic Engineering Review Responsibilities

A. Traffic reviews will occur for the plan submittals noted below:

i. Permanent Pavement Marking Plans *
ii. Permanent Signing Plans *
iii. Permanent Lighting Plans *
iv. As Built Signing Plans *
v. As Built Lighting Plans *
vi. Traffic Signal Plans *
vii. As Built Traffic Signal Plans *
viii. Traffic Management Plan *
ix. Conceptual Work Zone Traffic Control Plans*
x. Work Zone Traffic Control Plans *

B. Miscellaneous Submittals Reviews will include: *

i. Review and provide recommendations on thirty (30) Requests for Information
ii. Review and provide recommendations on six (6) NCRs
iii. Review and provide recommendations on six (6) Issue Papers
iv. Review and provide recommendations on four (4) Technical Special Provisions
v. In support of the submittal reviews, an allowance is made to perform additional analysis if an apparent issue arises on a design element that requires verification of the design calculations. Perform four (4) independent analyses.

C. In support of the submittal reviews, a further allowance is made to review any revised drawings and evaluate design modifications including cost ramifications necessitated by the Contractor's changes during construction. It is assumed that four (4) design modifications will be initiated.*

D. Meetings *

i. Prepare for and attend one (1) eight-hour Partnering Meetings, including travel and prep, with CITY, Contractor, and others
ii. Attend ten (10) two-hour Design Coordination Meetings

15. CONSTRUCTION ENGINEERING, INSPECTION AND ADMINISTRATION (CEI&A)

If this task is needed the scope and fee will be under a contract modification.

Manhour and Fee Estimate
Ashley River Pedestrian Bridge (DB Prepraration Services)
Charleston

Providence Engineering Consultants, LLC
Subconsultant

9/1/2020

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ -	$ -	$ -	$ -	-
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	-
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	-
04	Environmental Services	$ 3,172.84	$ 174.00	$ -	$ 3,346.84	2.3%
05	Roadway and Path Design	$ -	$ -	$ -	$ -	-
06	Structural Design	$ -	$ -	$ -	$ -	-
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	-
08	Geotechnical Services	$ -	$ -	$ -	$ -	-
09	Utility Coordination	$ -	$ -	$ -	$ -	-
10	SUE	$ -	$ -	$ -	$ -	-
11	Right of Way	$ -	$ -	$ -	$ -	-
12	Development of RFQ and RFP	$ 88,046.31	$ 232.00	$ -	$ 88,278.31	60.3%
13	Procurement	$ 38,867.29	$ 116.00	$ -	$ 38,983.29	26.6%
14	Design Plan Review and Administration	$ 15,864.20	$ -	$ -	$ 15,864.20	10.8%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$ 145,950.64	$ 522.00	$ -	$ 146,472.64	

Providence Engineering Consultants, LLC

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ -	$ -	$ -	$ -	$ -	$ -	$ -
02	Field Surveys (Supplemental)	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ -	$ -	$ -	$ -	$ -	$ -	$ -
04	Environmental Services	$ 1,153.76	$ 1,730.64	$ 288.44	$ -	$ 3,172.84	$ 174.00	$ 3,346.84
05	Roadway and Path Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
06	Structural Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
07	Hydrology and Hydraulic Design	$ -	$ -	$ -	$ -	$ -	$ -	$ -
08	Geotechnical Services	$ -	$ -	$ -	$ -	$ -	$ -	$ -
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	SUE	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ 32,016.84	$ 48,025.26	$ 8,004.21	$ -	$ 88,046.31	$ 232.00	$ 88,278.31
13	Procurement	$ 14,133.56	$ 21,200.34	$ 3,533.39	$ -	$ 38,867.29	$ 116.00	$ 38,983.29
14	Design Plan Review and Administration	$ 5,768.80	$ 8,653.20	$ 1,442.20	$ -	$ 15,864.20	$ -	$ 15,864.20
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 53,072.96	$ 79,609.44	$ 13,268.24	$ -	$ 145,950.64	$ 522.00	$ 146,472.64
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Providence Engineering Consultants, LL	$ 146,472.64	100.0%	$ 146,472.64
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Total DBE Qualifying Fee		$ 146,472.64
	Percentage of Fee Total		100.0%

Fee Summary

A - Direct Labor	$	53,072.96
B - Overhead [A x 1.5]	$	79,609.44
C - Profit [(A+B) x 0.1]	$	13,268.24
D - FCCM [A x 0]	$	-
E - Labor Total	$	145,950.64
F - Total Non-Salary Direct Expenses	$	522.00
G - Subconsultant Fees	$	-
Fee Total	$	146,472.64

fee total less profit $133,204.40

Prepared by _____

Task 04: Environmental Services

Manhours

Staff Classification	Principal	Sr Transportation Engineer	,	,	,	,	,	,	,	,	Manhour Totals	
Manhour Totals by Classification	8	8									16	
Sub-task												
4.1.3 Public Information Meeting	4	4									8	50.0%
Logistical Planning/Coordination/Materials												
Setup & Breakdown												
Comment Analysis & Reporting												
4.1.4 Stakeholder Meeting	4	4									8	50.0%
Logistical Planning/Coordination/Materials												
4.1.5 Community Meeting (x2)												
Logistical Planning/Coordination/Materials												

Task 04: Environmental Services

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
4.1.3	Public Information Meeting	8	
	Logistical Planning/Coordination/Materials		
	Setup & Breakdown		
	Comment Analysis & Reporting		
4.1.4	Stakeholder Meeting	8	
	Logistical Planning/Coordination/Materials		
4.1.5	Community Meeting (x2)		
	Logistical Planning/Coordination/Materials		

Task 04: Environmental Services

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Principal	8	$ 72.11	$ 576.88	$ 865.32	$ 144.22	$ -	$ 1,586.42
Sr Transportation Engineer	8	$ 72.11	$ 576.88	$ 865.32	$ 144.22	$ -	$ 1,586.42
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100% Task Totals for Labor	16		$ 1,153.76 (A)	$ 1,730.64 (B)	$ 288.44 (C)	$ - (D)	$ 3,172.84 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	300	miles	@	$ 0.580	per mile	$ 174.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 174.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$	1,153.76
B	Overhead [A x 1.5]	$	1,730.64
C	Profit [(A+B) x 0.1]	$	288.44
D	FCCM [A x 0]	$	-
E	Labor Total	$	3,172.84
F	Non-salary Direct Expenses	$	174.00
G	Subconsultant Fees	$	-
	Task Total	$	3,346.84

$3,346.84

Task 12: Development of RFQ and RFP

Manhours

Staff Classification	Sr. Transportation Engineer	,	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification	444										**444**

Sub-task												
12.1.0 Develop RFQ	32										32	7.2%
12.1.1 Determine Proposer Qualifications Requirements	8										8	1.8%
12.1.2 Risk Matrix	24										24	5.4%
12.1.3 Respond to RFQ Questions	24										24	5.4%
12.1.4 RFQ Addendum	16										16	3.6%
12.1.5 SOQ Evaluation	40										40	9.0%
12.1.6 Address FHWA Comments on RFQ Docs	4										4	0.9%
12.2.1 Develop RFP	80										80	18.0%
12.2.2 Attachment A	80										80	18.0%
12.2.3 Attachment B	24										24	5.4%
12.2.4 Project Information Package	16										16	3.6%
12.2.5 Final RFP	32										32	7.2%
12.2.6 RFP Addenda (5)	40										40	9.0%
12.2.7 Address FHWA Comments on RFP Docs	24										24	5.4%

Task 12: Development of RFQ and RFP

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
12.1.0 Develop RFQ	32	
12.1.1 Determine Proposer Qualifications Requirements	8	
12.1.2 Risk Matrix	24	PEC risk analysis is limited to Roadway related items
12.1.3 Respond to RFQ Questions	24	
12.1.4 RFQ Addendum	16	
12.1.5 SOQ Evaluation	40	
12.1.6 Address FHWA Comments on RFQ Docs	4	
12.2.1 Develop RFP	80	PEC is limited to Roadway design criteria and Roadway related specifications
12.2.2 Attachment A	80	PEC is limited to Roadway design criteria and Roadway related specifications
12.2.3 Attachment B	24	
12.2.4 Project Information Package	16	
12.2.5 Final RFP	32	
12.2.6 RFP Addenda (5)	40	
12.2.7 Address FHWA Comments on RFP Docs	24	

Task 12: Development of RFQ and RFP

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Sr. Transportation Engineer	444	$ 72.11	$ 32,016.84	$ 48,025.26	$ 8,004.21	$ -	$ 88,046.31
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -

DBE%							
100%	Task Totals for Labor	444	$ 32,016.84 (A)	$ 48,025.26 (B)	$ 8,004.21 (C)	$ - (D)	$ 88,046.31 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	400	miles	@	$ 0.580	per mile	$ 232.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 232.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 32,016.84
B	Overhead [A x 1.5]	$ 48,025.26
C	Profit [(A+B) x 0.1]	$ 8,004.21
D	FCCM [A x 0]	$ -
E	Labor Total	$ 88,046.31
F	Non-salary Direct Expenses	$ 232.00
G	Subconsultant Fees	$ -
	Task Total	$ 88,278.31

$88,278.31

Task 13: Procurement

Manhours

Staff Classification	Sr Transportation Engineer										Manhour Totals
Manhour Totals by Classification	196										196

Sub-task												
13.10 Respond to RFP Questions	36										36	18.4%
13.20 Technical Assistance During Review of ATCs	48										48	24.5%
13.30 Review Technical Proposal	48										48	24.5%
13.40 Review and Analysis of Bid Packages	24										24	12.2%
13.50 Evaluation of Proposals	40										40	20.4%

Task 13: Procurement

Task Notes

General Task Notes

PEC reviews and responses are limited to roadway related items. Fee assumes that Others will provide reviews, comments, and responses to proposer questions for all other items.

Sub-task	Manhour Totals	Notes
13.10 Respond to RFP Questions	36	Assumes 3 Proposers at 12 Hours for Q&A with Each
13.20 Technical Assistance During Review of ATCs	48	Assumes 3 Proposers at 16 Hours for ATC Review for Each. PEC Roadway Only
13.30 Review Technical Proposal	48	Assumes 3 Proposers at 16 Hours for Review of Each
13.40 Review and Analysis of Bid Packages	24	Assumes 3 Proposers with 8 Hours for Review of Each
13.50 Evaluation of Proposals	40	Assumes 3 Proposals and Participation in Eval Committee Meeting

Task 13: Procurement

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Sr. Transportation Engineer	196	$ 72.11	$ 14,133.56	$ 21,200.34	$ 3,533.39	$ -	$ 38,867.29
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -

DBE%
100%

Task Totals for Labor 196 $ 14,133.56 (A) $ 21,200.34 (B) $ 3,533.39 (C) $ - (D) $ 38,867.29 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	200	miles	@	$ 0.580	per mile	$ 116.00
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ 116.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$ 14,133.56
B	Overhead [A x 1.5]	$ 21,200.34
C	Profit [(A+B) x 0.1]	$ 3,533.39
D	FCCM [A x 0]	$ -
E	Labor Total	$ 38,867.29
F	Non-salary Direct Expenses	$ 116.00
G	Subconsultant Fees	$ -
	Task Total	$ 38,983.29

$38,983.29

Task 14: Design Plan Review and Administration

Manhours

Staff Classification	Sr Transportation Engineer	,	,	,	,	,	,	,	,	,	Manhour Totals
Manhour Totals by Classification	80										80

Sub-task												
14.10 Project Organization and Management Responsibilities												
14.20 Roadway/Path Design Review Responsibilities	80										80	100.0%
14.30 Structural Design Review Responsibilities												
14.40 Movable Span Structure, Mechanical, Electrical&Facilities												
14.50 Hydaulic Design Review Responsibilities												
14.60 Geotechnical Design Review Responsibilities												
14.70 Traffic Engineering Review Responsibilities												

Task 14: Design Plan Review and Administration

Task Notes

General Task Notes

Fee assumes that Others will consolidate reviewer comments and coordinate with the DB Contractor.

Sub-task		Manhour Totals	Notes
14.10	Project Organization and Management Responsibilities		
14.20	Roadway/Path Design Review Responsibilities	80	PEC will provide QA review of preliminary, right of way, and final roadway plans
14.30	Structural Design Review Responsibilities		
14.40	Movable Span Structure, Mechanical, Electrical&Facilities Design Rev		
14.50	Hydaulic Design Review Responsibilities		
14.60	Geotechnical Design Review Responsibilties		
14.70	Traffic Engineering Review Responsibilties		

Task 14: Design Plan Review and Administration

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 150.00%	Profit 10.00%	FCCM	Labor Total
Sr. Transportation Engineer	80	$ 72.11	$ 5,768.80	$ 8,653.20	$ 1,442.20	$ -	$ 15,864.20
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
DBE% 100% Task Totals for Labor	80		$ 5,768.80 (A)	$ 8,653.20 (B)	$ 1,442.20 (C)	$ - (D)	$ 15,864.20 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
-	-		@	$ -	-	$ -
						$ -
						$ -

Task Total for Non-salary Direct Expenses $ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	

Task Totals for Subconsultant Involvement $ - (G)

Fee Summary for Task

A	Direct Labor	$	5,768.80
B	Overhead [A x 1.5]	$	8,653.20
C	Profit [(A+B) x 0.1]	$	1,442.20
D	FCCM [A x 0]	$	-
E	Labor Total	$	15,864.20
F	Non-salary Direct Expenses	$	-
G	Subconsultant Fees	$	-
	Task Total	$	15,864.20

$15,864.20

Pyramid

PYRAMID GEOPHYSICS

August 3, 2020

Lila Leon, P.E., Ph.D.
HDR, Inc.
1122 Lady St., #1100
Columbia, SC 29201
Via email to: Lila.Leon@hdrinc.com

SUBJECT: **MASW Survey Cost Proposal**
Ashely River Pedestrian Bridge
US-17 North, West of Ashley River
Charleston, South Carolina

Ms. Leon:

We are pleased to provide this proposal to HDR, Inc. (HDR) to perform a Multi-Channel Analysis of Surface Waves (MASW) 2D seismic survey along US-17 North on the western side of the Ashley River Bridge in Charleston, SC. The MASW survey will be conducted to evaluate geologic conditions across the project site; specifically, to characterize subsurface geological conditions and shear wave velocities down to approximately 100 feet below ground surface. Due to the apparent presence of utilities in the shoulder, the survey will be conducted in the right line of US-17 North. As such, traffic control will be required to close the lane and, due to lane closure restrictions, the work will need to be conducted at night.

SCOPE OF WORK

MASW Methodology

The MASW survey records surface wave seismic data and converts the data into approximate shear wave velocity values. Variations in the shear wave velocities can be used to interpret changes in stratigraphy and transitions from overburden into bedrock. The 2D MASW survey will be conducted using twenty-four, 4.5 Hz geophones connected to a Geometrics 24-Channel Geode seismograph. The geophones and cable will be attached to a "landstreamer," which allows field personnel to rapidly move the entire geophone array at one time during the survey testing.

The MASW transect will consist of one spread of 24 geophones spaced 8 feet apart. This spacing should result in a depth penetration of 100+ feet below the ground surface, depending on geologic conditions and background noise. The sound source will consist of a 20-pound sledgehammer placed 16 feet from the first geophone. The geophone spread for the 2D transect will begin with the center of the 24-geophone array positioned at the beginning of the 200-foot line requested by HDR. The location of the proposed MASW Transect can be seen on the attached **figure**. To collect the 2D transect, a single "shot" will be recorded, providing a 1D profile of shear wave velocity at the center of the geophone spread. The entire spread will then be shifted 8 feet beyond the last geophone using the landstreamer, and another shot will be performed. This procedure will continue until the 200-foot length has been covered. This proposed cross-section would result in a total of 26 individual shots.

It is estimated that the 2D MASW testing will be completed in one field day. The seismic data will be processed using SurfSeis software developed by the Kansas Geological Survey. Apparent depth versus shear wave velocity profiles will be generated for the survey line using the SurfSeis processing program. Pyramid will analyze the 2D cross-section to interpret the depth and thickness of geologic units along the area surveyed.

GPS locations will be recorded at the start and end of the MASW transect. A figure will be provided depicting interpretive lines representing the depth of each geologic unit identified on the transect. The MASW

P.O. Box 16265 • Greensboro, NC 27416
503 Industrial Ave • Greensboro, NC 27406
Phone (336)335-3174 • Fax (336)691-0648 • Toll Free (866)545-9507
Email: Info@pyramidenvironmental.com
www.pyramidenvironmental.com

information will also be combined with all geologic logs recorded by the HDR borings to more accurately interpret the velocity thresholds observed in the results.

LIMITATIONS

Although the MASW surveys can be conducted across asphalt, unreinforced concrete, grass and soil surfaces, steel reinforced concrete can interfere with data quality and accuracy. The spread of geophones must be placed in relatively undisturbed soil or on flat ground/asphalt and cannot be placed in surface soils that have recently been disturbed or loosely graded. Background noise can affect the quality of data depending on its proximity and severity during the tests. The test cannot be performed across abrupt changes in topography, such as steps or shear drop-offs. A significant enough velocity contrast must exist between the geologic units discussed above to accurately delineate their depths and thicknesses based on the seismic results.

SCHEDULE & REPORT

We plan to conduct this work upon your approval and when our equipment and personnel are available. Preliminary results will be emailed to HDR following the fieldwork. The report may be submitted within 15 business days following the completion of the fieldwork. The report will include:

- Site photographs.
- A location map showing the MASW transect location.
- 2D cross-section image of the MASW transect performed, including interpretive lines delineating the surfaces of geologic units.
- A spreadsheet containing 1D shear wave velocity results for each MASW shot performed.

COST ESTIMATE

The attached cost spreadsheet provides details of the cost estimates to perform this work. The costs are based upon the scope of work and assumptions described in this proposal and include all field equipment, personnel and reporting expenses.

PYRAMID GEOPHYSICS

8/3/20 Lump Sum Cost Estimate - Geophysical Services

Client : **HDR, Inc.**
1122 Lady St., #1100
Columbia, SC 29201
Attn: Lila Leon, P.E., Ph.D.

Pyramid Environmental
503 Industrial Avenue
Greensboro, NC 27406
Project Manager: Eric Cross, P.G

Site: **Ashley River Pedestrian Bridge**
US-17 North, West of Ashley River
Charleston, SC

Scope of Work
One 2D MASW Test Spanning 200 ft.

		UNIT	QUANTITY	COST	TOTAL
	Geophysical Survey Costs				
1.000	Mileage	$/mile	550	$ 0.58	$ 319.00
1.010	Meals (2 staff)	$/day	2	$ 55.00	$ 110.00
1.020	Lodging (2 staff)	$/day	2	$ 94.00	$ 188.00
1.030	Traffic Control	lump sum	1	$ 2,500.00	$ 2,500.00
1.040	MASW 2D Cross Section Test Spanning 200-Feet	$/day	1	$ 2,500.00	$ 2,500.00
1.050	Data Reduction and Report	lump sum	1	$ 1,500.00	$ 1,500.00

TOTAL ESTIMATE **$7,117.00**

Pyramid Environmental & Engineering, P.C.
Phone - (336) 335-3174 / Fax - (336) 691-0648

BASIS OF COMPENSATION & AGREEMENT

The basis of compensation for the geophysical services outlined above is as follows:

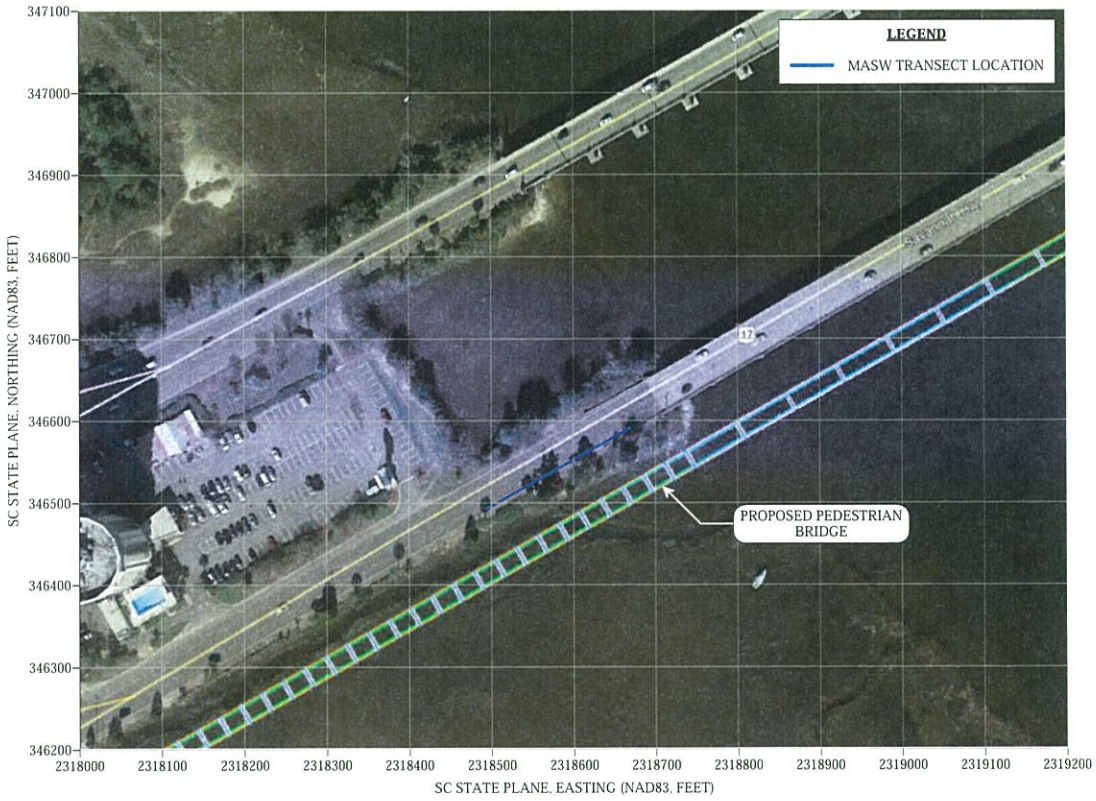
HDR shall pay Pyramid Environmental for services rendered in this cost proposal **the attached lump sum amount of $7,117.00** to conduct the geophysical survey at the project site in South Carolina. This proposal shall remain in effect for sixty days.

The work described in this proposal will be performed under a service agreement between HDR and Pyramid or a work order issued from HDR. We look forward to working with you on this project. Please call if you have any questions or need additional information.

Sincerely,

Eric Cross, P.G.
Senior Geophysicist

PROPOSED MASW TRANSECT LOCATION



PYRAMID GEOPHYSICS
503 INDUSTRIAL AVENUE
GREENSBORO, NC 27406
(336) 335-3174 (p) (336) 691-0648 (f)
License # C1251 Eng. / License # C257 Geology

ASHLEY RIVER PEDESTRIAN BRIDGE -
PROPOSED MASW TRANSECT LOCATION
CHARLESTON, SC

DATE 8/3/2020

CLIENT HDR, INC.

FIGURE 1

Soil Consultants, Inc.

SCI | SOIL CONSULTANTS, INC.
Engineers and Geologists
Since 1951

PO Drawer 698
Charleston, SC 29402-0698
P: 843.723.4539 F: 843.723.3648
www.SoilConsultantsInc.com

August 3, 2020

HDR Engineering of the Carolinas, Inc.
1122 Lady Street, Suite 1100
Columbia, SC 29201

Attention: Ms. Lila Leon, PE, PhD
E: lila.leon@hdrinc.com

Reference: Proposal for Construction Materials Testing Services
Ashley River Pedestrian Bridge
Charleston, SC

SCI Proposal No. 12-20-259

Dear Ms. Leon,

Soil Consultants, Inc. (SCI) is pleased to submit this proposal to provide construction materials testing services for the Ashley River Pedestrian Bridge project located in Charleston, SC. We prepared our proposal using information provided in a July 31, 2020 email to Mr. Ron Austin, PE of SCI and our review of the *Ashley River Pedestrian Bridge - Pavement Coring and Lab Testing* document provided by HDR.

Soil Consultants, Inc. is certified by SCDOT as a DBE and SBE firm, by Charleston County as SBE, and by the City of Charleston as WBE. Services provided by SCI may be applicable to your project's DBE/SBE participation levels.

Scope of Services

1. We will perform asphalt coring at three locations selected by HDR within the proposed construction area. The asphalt will be cored with a 6" diameter steel bit and hand-auger borings will be advanced to depths of approximately 5 feet. Hand auger boring depths may be adjusted as appropriate based on soil conditions encountered. The cored locations will be backfilled with soil cuttings, 789 stone, and topped with asphalt cold patch material.

2. Based on our experience with other projects in the area, the asphalt thickness could be over 12" and not compatible with a coring machine. If the asphalt thickness is greater than 12", SCI will require a drill rig to core through the asphalt. The drill rig will then remain on site and provide continuous sampling up to a maximum of 5 ft depth as requested. We have provided the fees associated with drill rig mobilization in Table 3. Please note that additional traffic control and light plants may be necessary if additional days are required. Additionally, when using a drill rig to core through the asphalt, the asphalt core will likely be damaged. SCI will only be able to obtain a total thickness if lieu of normal core length measurements & pictures.

3. In accordance with South Carolina state law, we assume that HDR will notify SC811 so that existing underground public utilities can be located prior to performing the cores and hand auger borings.

4. Laboratory testing will be performed on samples selected by HDR to aid in soil classification and to measure engineering properties. It is our understanding that all samples will be delivered to SCI laboratory by HDR personnel. Laboratory testing is expected to include the following:
    - Ninety (90) Natural Moisture Content tests (ASTM D2216)
    - Ninety (90) Moisture-Plasticity Relationship Determination (Atterberg Limits) (ASTM D4318)
    - Ninety (90) Grain Size Distribution with wash No.200 (ASTM D1140)
    - Five (5) Organic content tests (ASTM D2974)
    - Six (6) Corrosion Series (including pH, Sulfate, Chloride & Resistivity) for the proposed bridge (AASHTO T289, T290, T291, & T288)
    - Twenty (20) UD preparations
    - Four (4) Consolidation tests (ASTM D2435)
    - Eight (8) Unconsolidated Undrained Triaxial Shear Strength tests (ASTM D2850)
    - Ten (10) Consolidated Undrained Triaxial Shear Strength tests with pore water pressure measurement (ASTM D4767)
    - Two California Bearing Ratio (CBR) w/ Standard Effort (ASTM D1833)
    - Two Moisture Density Relationship (Standard Proctor) (ASTM D698)

HDR Engineering of the Carolinas, Inc. will provide:

1. Approximate coring locations staked/marked in the field.
2. Permitting, coordination, and access rights to each coring location.
3. Utility clearances, as needed, for the coring locations.

Fee Estimate

Estimated fees to provide the outlined services with the noted conditions and under the terms included in the Soil Consultants, Inc. Terms and Conditions to the *Agreement for Testing and Inspection Services* are presented in Tables 1 through 3. Presented estimated fees are neither a not-to-exceed quotation nor a lump sum quotation.

Estimated fees are based on our review of the testing scope outlined by our discussions. The quoted fees are for the presented number of trips, hours per trip, and number of samples/tests. Actual quantities may vary from those estimated and are contingent upon contractor schedules and test scheduling efficiency, over which we have no influence. Invoices will be issued based on services rendered, subject to the noted conditions, and may differ from this estimate.

Quoted fees include standard report distribution via the Soil Consultants, Inc. report system. Quoted fees do not include uploading reports to project specific software, access to project specific software, training for project specific software, or acquisition of project specific software.

Table 1 – Asphalt Coring (with Coring Machine)							
SCDOT Asphalt Coring	**Trips**	**Units/ Trip**	**Quantity**	**Unit**	**Unit Rate**	**Extension**	**Subtotal**
**Estimate 1 trip at 10 hours for 2 technicians to perform asphalt coring and soil sampling. Assume night-time work required due to lane closure restrictions.*							
**Estimate total of 3 asphalt cores and 3 patches.*							
Senior Technician - overtime	1	10	10	hour	$ 112.50	$ 1,125.00	
Technician - overtime	1	10	10	hour	$ 82.50	$ 825.00	
Trip Charge	1	1	1	each	$ 20.00	$ 20.00	
Asphalt Coring, ASTM D5361	1	3	3	each	$ 75.00	$ 225.00	
Coring Machine & Generator	1	1	1	day	$ 155.00	$ 155.00	
Patch Cored Location w/ Asphalt Cold Patch			3	each	$ 10.00	$ 30.00	
Core preparation - asphalt			3	each	$ 50.00	$ 150.00	
Thickness of Asphalt Cores, D3439			3	each	$ 40.00	$ 120.00	
Subcontracted Traffic Control Services	1	1	1	day	$ 2,500.00	$ 2,500.00	
Light Plant Rental	1	1	1	day	$ 135.00	$ 135.00	
					Estimated Fees - SCDOT Asphalt Coring		**$ 5,285.00**
					SUBTOTAL – Asphalt Coring (with Coring Machine)		**$ 5,285.00**

Table 2 – Laboratory Testing Services							
Laboratory Testing	**Trips**	**Units/ Trip**	**Quantity**	**Unit**	**Unit Rate**	**Extension**	**Subtotal**
Atterberg Limits (ASTM D4318)		90	90	each	$ 80.00	$ 7,200.00	
California Bearing Ratio (ASTM D1883)		2	2	each	$ 510.00	$ 1,020.00	
Moisture Content (ASTM D2216)		90	90	each	$ 13.00	$ 1,170.00	
Organic Content (ASTM D2974)		5	5	each	$ 68.00	$ 340.00	
Particle Size (ASTM D422) dry sieve, wash 200, no hydrometer		90	90	each	$ 85.00	$ 7,650.00	
Standard Proctor (ASTM D 698, Method A)		2	2	each	$ 135.00	$ 270.00	
UD Preparation		20	20	each	$ 130.00	$ 2,600.00	
Consolidation (16 load increments), ASTM D2435		4	4	each	$ 950.00	$ 3,800.00	

Table 2 – Laboratory Testing Services							
Unconsolidated Undrained Triaxial (ASTM D2850)		8	8	each	$ 520.00	$ 4,160.00	
Consolidated Undrained Triaxial (ASTM D4767)		10	10	each	$ 950.00	$ 9,500.00	
Resistivity (Laboratory), ASTM G187		6	6	each	$ 130.00	$ 780.00	
pH Test (Laboratory), ASTM D4972		6	6	each	$ 45.00	$ 270.00	
Chloride Content (AASHTO T291)		6	6	each	$ 100.00	$ 600.00	
Sulfate Content (AASHTO T290)		6	6	each	$ 90.00	$ 540.00	
						Estimated Fees - Laboratory Testing	**$ 39,900.00**
						SUBTOTAL – Laboratory Testing Services	**$ 39,900.00**

Table 3 – Coring (with Drill Rig)					
Field Services	**Quantity**	**Unit**	**Rate**	**Fee**	**Subtotal**
Cut and Patch Asphalt	3	each	$ 100.00	$ 300.00	
Mobilization and Transportation of SPT Drill Rig (Truck)	1	each	$ 650.00	$ 650.00	
Traffic Control (Subcontracted)	1	day	$ 2,500.00	$ 2,500.00	
Truck Drill Rig and 2-Man Crew (8 hr day)	1	day	$ 1,650.00	$ 1,650.00	
Light Plant Rental	1	day	$ 135.00	$ 135.00	
				Subtotal - Field Services	$ 5,235.00
Laboratory Testing Services	**Quantity**	**Unit**	**Rate**	**Fee**	**Subtotal**
Core preparation - asphalt	3	each	$ 50.00	$ 150.00	
Thickness of Asphalt Cores, D3439	3	each	$ 40.00	$ 120.00	
				Subtotal - Laboratory Services	$ 270.00
				SUBTOTAL – Coring (with Drill Rig)	**$ 5,505.00**

Table 4 – Estimated Fee Task Summary	
Task	**Estimated Fee**
Asphalt Coring with Coring Machine	$ 5,285.00
Laboratory Testing	$ 39,900.00
Total Estimated Fees	**$ 45,185.00**
Asphalt Coring with Drill Rig ***(if applicable)***	$ 5,505.00

Noted conditions for our service include:

1. Services are scheduled by calling the Materials Testing department at 843.723.4539. We request 48-hour notice.
2. Fees for field work are computed from time of departure to time of return to the laboratory, subject to the minimum charges outlined herein.
3. Trip charges are levied for each trip required to complete the requested service.
4. Trip charges do not include gate charges, parking fees, or other fees that may be required to access the site. These incidental fees will be invoiced as incurred.
5. All field inspections for materials testing require a 3-hour minimum charge during SCI regular business hours and require a minimum 4-hour charge outside of SCI regular business hours.
6. Regular time for materials testing is defined as within SCI regular business hours: between 7 am and 4 pm Monday through Friday, excluding holidays.
7. Overtime is defined as all time before and after regular business hours Monday through Friday, all time on weekends, and all time on holidays.
8. Overtime rates of 1.5 times the appropriate personnel rate will be applicable and invoiced for all services provided outside of SCI regular business working hours and for all services provided on weekends. Overtime rates of 2.0 times the appropriate personnel rate will be applicable and invoiced for all field and laboratory services provided on holidays.
9. For in-house laboratory services requested after SCI regular business hours, on weekends, or on holidays, personnel overtime rates will apply in addition to the laboratory service unit rate. A minimum charge of 2-hours personnel overtime rate will apply for in-house laboratory services performed after SCI regular business hours, on weekends, or on holidays, with actual personnel time invoiced if greater than 2 hours.
10. Quoted fees are for standard turnaround. If expedited service is required, additional fees will be levied.
11. Standby time or lost time, resulting through no fault of SCI, will be invoiced at the appropriate unit rates.
12. Estimated pricing does not include costs for re-tests due to failure.
13. Payment terms are net 30 days – 1.5% finance charge per month on all outstanding accounts over 30 days.
14. Payments made with credit cards (Visa and MasterCard) are subject to a 3% convenience fee.
15. Quoted fees include standard report distribution defined as one electronic copy to parties designated by the Client when the work is authorized. Report issuance is via the Soil Consultants, Inc. report system. Quoted fees do not include uploading reports to project specific software, access to project specific software, training for project specific software, or acquisition of project specific software. Additional fees will be levied if required.
16. Fees and conditions offered in this proposal will remain in force and effect for 60 days from the proposal date. If the proposal has not been accepted by execution and returned within the 60-day period, Soil Consultants, Inc. reserves the right to revise any service scope, fee, and/or condition to the proposal.

17. After contract acceptance, quoted unit rates are valid for the remainder of the calendar year 2020 unless noted. Soil Consultants, Inc. reserves the right to levy unit rate increases for services provided in subsequent calendar years.

Authorization

To authorize our services with the outlined scope, fees, and noted conditions, execute the attached *Agreement for Testing and Inspection Services* with the accompanying *Terms and Conditions* and return them to us via email. The *Agreement for Testing and Inspection Services* requires signature, date, and printed name. The *Terms and Conditions* require initials and date. Return of the *Agreement* page constitutes acceptance of our proposal, *Agreement* and *Terms and Conditions*.

If you have exceptions to our proposal, *Agreement*, or *Terms and Conditions*, please note your exceptions and return the full document. Once the exceptions have been resolved by agreement in writing, Soil Consultants, Inc. will consider the contract to be executed.

We appreciate the opportunity to present this proposal. If we may be of further assistance, please call.

Sincerely,
Soil Consultants, Inc.

Taylor O. Johnson
Project Manager

M. Brian Johnson
President

Attachments

Agreement for Testing and Inspection Services

Stantec

Stantec has been requested to provide the services listed below in conjunction with the Ashley River Bike Ped Bridge Design Build Preparation Services as a subconsultant to HDR.

5. ROADWAY/PATH DESIGN

All plans, designs, specifications and estimates shall conform to the SCDOT's standard practices for highway construction, which are based on the latest edition of the following material:

- AASHTO A Policy on Geometric Design of Highways and Streets, 2011;
- AASHTO Guide for the Development of Bicycle Facilities, 2012;
- SCDOT Standard Drawings – Latest Edition; SCDOT Standard Specifications for Highway Construction 2007 Edition;
- SCDOT'S Engineering Directive Memoranda and Instructional Bulletins;
- SCDOT'S Access and Roadside Management Standards (ARMS) Manual, latest edition;
- SCDOT Roadway Design Manual, 2017,
- AASHTO Guide for the Planning, Design, and Operation of Pedestrian Facilities, 1st Edition and;
- Other applicable SCDOT and FHWA design material, current editions.

5.1. Conceptual Plans*

5.1.1. Prior to beginning the design, the CONSULTANT shall submit detailed design criteria for approval by the CITY. Design criteria not in compliance with AASHTO or SCDOT requirements shall be brought to the CITY's attention for evaluation of a design exception.*

5.1.2. The CONSULTANT shall prepare conceptual plans for the alternatives in order to illustrate significant design features of the project. Improvements shall include:

- Intersection safety and pedestrian improvements at Wappoo Road and West Ashley Greenway
- Intersection safety and pedestrian improvements at Wesley Drive / Folly Road
- Alternatives for US 17 NB Off Ramp / Bee Street/ Lockwood Drive intersection

These conceptual plans will consist primarily of roll plots, typical sections and cross sections only where needed to verify the design.*

5.1.3. Conceptual cost estimates will be completed for each alternative and location*

5.2. Preliminary Road/Path Design

The CONSULTANT shall refine the conceptual plans for the preferred alternative necessary to confirm the NEPA boundaries and to aid in preparing a refined construction cost estimate and finalize design criteria.

5.2.1. Plans will include: Title sheet, Plans and profiles, Typical sections, Existing Right of way, Proposed Right of way, Cross Sections*

5.2.2. Preliminary cost estimates based off of select bid item quantities will be developed for the preferred alternative.*

5.2.3. Representatives from the CITY and the CONSULTANT will perform one (1) Design Field Review (DFR) meeting during the preliminary plan development. All information gathered during the DFR will be evaluated and the plans revised to verify the NEPA boundaries, cost estimate and criteria.*

5.2.4. Respond to comments and finalization of refined roadway plans*

5.2.5. Identify preliminary right of way requirements and environmental impacts*

5.2.6. Complete design exception documentation, if needed*

5.3. Deliverables

- One (1) Electronic copy of Roadway Design Criteria
- One (1) PDF file of Conceptual Roadway plans for each alternative will be provided.
- Conceptual Cost estimates
- One (1) PDF file of Preliminary Roadway plans will be provided for the preferred alternative
- Cost estimate from the preliminary plans for the preferred alternative.
- One (1) Complete Design Exception with supporting documentation (if necessary)

7. HYDROLOGY AND HYDRAULIC DESIGN

All hydraulic design and documents will be in compliance with the following design criteria:

- SCDOT's Requirements for Hydraulic Design Studies, latest edition;
- SCDOT Standard Drawings;
- SCDOT Supplemental Specifications;
- SCDOT Engineering Directive Memorandums;
- SCDOT Instructional Bulletins;
- SCDOT Standard Specifications for Highway Construction;
- SCDOT Supplemental Technical Specifications;
- SCDOT Preconstruction Advisory Memorandums;
- City of Charleston Stormwater Design Manual, latest edition;
- FEMA Regulations, 44CFR Chapter 1;
- The State Stormwater and Sediment and Erosion Control Regulations administered by DHEC, 26 S.C. Code Ann. Regs. 72-405 (Supp. 1995) et seq.;
- South Carolina State Water Law;
- AASHTO "Highway Drainage Guidelines" dated 2007;
- AASHTO"Drainage Manual", 2014 first edition;
- SCDOT "Stormwater Quality Design Manual" latest edition;
- SCDHEC NPDES MS4 permit #SCS040001; and

- SCDHEC NPDES Construction Permit #SCR160000.

7.1. Roadway Drainage*

7.1.1. Perform a hydrological study of the watershed(s) using existing topographic maps, information gathered from the field investigation(s) and available information from federal, state and local agencies.

7.1.2. Perform hydraulic analyses for pre- and post-developed conditions on the crossline drainage structures based on the appropriate route designation. Check the crossline drainage structures for roadway overtopping using the 100-yr storm event. Tailwater conditions must be taken into consideration.

7.1.3. Coordinate potential impacts from the proposed project on pre-development peak flow rates and total runoff volume. Prepare conceptual design alternatives for reducing post-development flow rates and total runoff volume to pre-development levels in accordance with CITY standards. This task item is specifically for non-bridge areas.

7.2. Deliverables:

- One (1) PDF copy of the Conceptual Roadway Drainage Design Report

- Manhour and Fee Estimate
Ashley River Bike-Pedestrian Bridge (Design Build Prep and Design Review)
Charleston, SC

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
05	Roadway & Path Design	$ 75,973.31	$ 136.00	$ -	$ 76,109.31	78.6%
07	Hydrology & Hydraulic Design	$ 20,775.59	$ -	$ -	$ 20,775.59	21.4%
	Totals	$ 96,748.90	$ 136.00	$ -	$ 96,884.90	

Stantec

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
05	Roadway & Path Design	$ 25,698.98	$ 43,217.45	$ 6,891.64	$ 165.24	$ 75,973.31	$ 136.00	$ 76,109.31
07	Hydrology & Hydraulic Design	$ 7,027.62	$ 11,818.21	$ 1,884.58	$ 45.18	$ 20,775.59	$ -	$ 20,775.59
	Totals	$ 32,726.60	$ 55,035.66	$ 8,776.22	$ 210.42	$ 96,748.90	$ 136.00	$ 96,884.90
		(A)	(B)	(C)	(D)	(E)	(F)	

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
Stantec	$ 96,884.90		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	Sum: $96,884.90		
	Total DBE Qualifying Fee		$ -
	Percentage of Fee Total		

Fee Summary

A - Direct Labor	$	32,726.60
B - Overhead [A x 1.68168]	$	55,035.66
C - Profit [(A+B) x 0.1]	$	8,776.22
D - FCCM [A x 0.00643]	$	210.42
E - Labor Total	$	96,748.90
F - Total Non-Salary Direct Expenses	$	136.00
G - Subconsultant Fees	$	-
Fee Total	$	96,884.90

fee total less profit $88,108.68

Prepared by: _____

05

Task 05: Roadway & Path Design

Manhours

Staff Classification	Project Manager	Sr. Transportation Engineer	Transportation Engineer	Jr. Transportation Engineer EIT	Engineering Technician										Manhour Totals
Manhour Totals by Classification	38	126	430												594

Sub-task																	
5.10	Conceptual Plans																
5.1.1	Design Criteria	2	6													8	1.3%
5.1.2	Preparation of Conceptual Plans	12	30	120												162	27.3%
5.1.3	Conceptual Cost Estimates	2	8	20												30	5.1%
5.20	Preliminary Road																
5.2.1	Preparation of Preliminary Plans	12	48	200												260	43.8%
5.2.2	Preliminary Cost Estimates		6	16												22	3.7%
5.2.3	Design Field Review Meeting	6		6												12	2.0%
5.2.4	Finalize Preliminary Road Plans	2	16	60												78	13.1%
5.2.5	ROW and Environmental Impacts		4	8												12	2.0%
5.2.6	Design Exceptions (If required)	2	8													10	1.7%

Task Notes

General Task Notes

Sub-task		Manhour Totals	Notes
5.10	Conceptual Plans		
5.1.1	Design Criteria	8	
5.1.2	Preparation of Conceptual Plans	162	roll plots, typ sects, and cross sects
5.1.3	Conceptual Cost Estimates	30	
5.20	Preliminary Road		
5.2.1	Preparation of Preliminary Plans	260	title, plan, profiles, typ sects, r/w
5.2.2	Preliminary Cost Estimates	22	
5.2.3	Design Field Review Meeting	12	
5.2.4	Finalize Preliminary Road Plans	78	
5.2.5	ROW and Environmental Impacts	12	
5.2.6	Design Exceptions (If required)	10	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead 168.17%	Profit 10.00%	FCCM 0.64%	Labor Total
Project Manager	38	$ 72.12	$ 2,740.56	$ 4,608.74	$ 734.93	$ 17.62	$ 8,101.85
Sr Transportation Engineer	126	$ 58.67	$ 7,392.42	$ 12,431.68	$ 1,982.41	$ 47.53	$ 21,854.04
Transportation Engineer	430	$ 36.20	$ 15,566.00	$ 26,177.03	$ 4,174.30	$ 100.09	$ 46,017.42
Jr Transportation Engineer/EIT		$ 32.12	$ -	$ -	$ -	$ -	$ -
Engineering Technician		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	594		$ 25,698.98 (A)	$ 43,217.45 (B)	$ 6,891.64 (C)	$ 165.24 (D)	$ 75,973.31 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units		Unit Cost		Total Cost
Mileage	100	miles	@	$ 0.575	per mile	$ 57.50
Full Size Plots, 22 x 36	50	sheets	@	$ 1.25	per sheet	$ 62.50
Half Size Plots, 12 x 18	50	sheets	@	$ 0.32	per sheet	$ 16.00
				Task Total for Non-salary Direct Expenses		$ 136.00 (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 25,698.98
B	Overhead [A x 1.68168]	$ 43,217.45
C	Profit [(A+B) x 0.1]	$ 6,891.64
D	FCCM [A x 0.00643]	$ 165.24
E	Labor Total	$ 75,973.31
F	Non-salary Direct Expenses	$ 136.00
G	Subconsultant Fees	$ -
	Task Total	$ 76,109.31

$76,109.31

07

Task 07: Hydrology & Hydraulic Design

Manhours

Staff Classification	Project Manager	Sr Hydraulic Engineer	Hydraulic Engineer	Jr Hydraulic Engineer/EIT											Manhour Totals
Manhour Totals by Classification	12	48		114											174

Sub-task																	
7.10 Roadway Drainage	8	32		74												114	65.5%
7.11 Conceptual Roadway Drainage Design Report	4	16		40												60	34.5%

Task Notes

General Task Notes

Sub-task	Manhour Totals	Notes
7.10 Roadway Drainage	114	
7.11 Conceptual Roadway Drainage Design Report	60	

Fee Determination for Labor

Staff Classification	Hours	Rate	Direct Labor	Overhead (1.68168)	Profit (0.10)	FCCM (0.00643)	Labor Total
Project Manager	12	$ 72.12	$ 865.44	$ 1,455.39	$ 232.08	$ 5.56	$ 2,558.47
Sr Hydraulic Engineer	48	$ 57.39	$ 2,754.72	$ 4,632.56	$ 738.73	$ 17.71	$ 8,143.72
Hydraulic Engineer		$ -	$ -	$ -	$ -	$ -	$ -
Jr Hydraulic Engineer/EIT	114	$ 29.89	$ 3,407.46	$ 5,730.26	$ 913.77	$ 21.91	$ 10,073.40
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
-		$ -	$ -	$ -	$ -	$ -	$ -
Task Totals for Labor	174		$ 7,027.62 (A)	$ 11,818.21 (B)	$ 1,884.58 (C)	$ 45.18 (D)	$ 20,775.59 (E)

Non-salary Direct Expenses

Expense Description	Quantity	Units	Unit Cost	Total Cost
			Task Total for Non-salary Direct Expenses	$ - (F)

Subconsultant Involvement

DBE	Subconsultant	Total Fee for Task	Manhours
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
		$ -	
Task Totals for Subconsultant Involvement		$ - (G)	

Fee Summary for Task

A	Direct Labor	$ 7,027.62
B	Overhead [A x 1.68168]	$ 11,818.21
C	Profit [(A+B) x 0.1]	$ 1,884.58
D	FCCM [A x 0.00643]	$ 45.18
E	Labor Total	$ 20,775.59
F	Non-salary Direct Expenses	$ -
G	Subconsultant Fees	$ -
	Task Total	$ 20,775.59

$20,775.59

Tidewater Atlantic

Technical Proposal for:

A Submerged Cultural Resource Remote Sensing Survey
of the Ashley River Bike and Pedestrian Bridge
Construction Corridor
Charleston, South Carolina

Submitted to:

HDR, Inc.
4400 Leeds Avenue, Suite 450
North Charleston, South Carolina 29405-7547

Submitted by:

Tidewater Atlantic Research, Inc.
P. O. Box 2494
Washington, North Carolina 27889

Submittal Date:

26 June 2020

Introduction

HDR, Inc.(HDR) of Charleston, South Carolina is working with the City of Charleston to design, permit and construct a bicycle and pedestrian bridge over the Ashley River. In order to determine the proposed project's possible effects on potentially significant submerged cultural resources, HDR requested technical and cost proposals for a systematic magnetic and acoustic survey of the bridge corridor. The Phase I remote-sensing survey proposed by Tidewater Atlantic Research, Inc. (TAR) of Washington, North Carolina is designed to locate and identify any submerged cultural resources within the project construction footprint. Data generated by the survey will support identification of magnetic anomalies and acoustic image targets that could represent potentially significant submerged cultural resources.

The investigation proposed by TAR conforms to the survey requirements of the South Carolina State Historic Preservation Office (SHPO) and recommendations of the South Carolina Institute of Archaeology and Anthropology (SCIAA). Analysis of the magnetic and acoustic data will provide accurate and reliable identification, assessment, and documentation of submerged cultural resources in the project Area of Potential Effect (APE). All potentially significant magnetic anomalies and acoustic targets will be evaluated in terms of eligibility criteria established in compliance with the National Historic Preservation Act of 1966, as amended, and the Archaeological and Historic Preservation Act of 1979, as amended.

Results of the proposed investigation will provide HDR with the archaeological data essential for complying with submerged cultural resource legislation and regulations. Each archaeological and historical resource will be evaluated and assessed. The need for additional investigation or testing to determine appropriate measures for avoidance and preservation of the resource, or mitigation that might be required in the event that avoidance is not an option, will also be addressed in the final report document.

The methodology proposed by TAR will combine state-of-the-art technology, experienced personnel, and an investigative approach designed to generate appropriate historical and remote-sensing data. Equipment for the project has been selected to provide maximum reliability and economy in target location, relocation, identification, documentation, and assessment. Personnel responsible for the remote-sensing investigation have been selected to combine a variety of individual talents and extensive submerged cultural resource research and management experience. That experience provides assurance of maximum operational efficiency, safety, and professional assessment of the data.

The research methodology will assure a systematic scientific approach designed to ensure the generation of appropriate data, yet retain the operational flexibility essential to the success of field investigations. TAR submits that the major strength of this proposal lies in the unique combination of personnel, equipment, and procedures. This combination assures that the project will generate data that can serve as a basis for responsible decision-making concerning those submerged cultural resources in the study area.

Research Methodology

TAR proposes to conduct a limited literature and Internet search of primary and scholarly secondary sources to assess the potential for finding submerged historic properties within the proposed survey area. That research will be designed to build upon and refine an extant maritime background for Charleston and the adjacent Ashley River area.

Remote-Sensing Survey

To identify submerged cultural resources, TAR proposes to conduct a systematic remote-sensing survey of the proposed project construction areas utilizing a 25-foot vessel. In order to fulfill the requirements stated in the *Scope of Work*, TAR proposes to employ both magnetic and acoustic remote sensing. A combination of magnetic and acoustic remote-sensing equipment represents the

state of the art in submerged cultural resource location technology and offers the most consistent and cost-effective method to locate and identify potentially significant targets. Data collection will be controlled using a differential global positioning system (DGPS). The DGPS produces the highly accurate coordinates necessary to support a sophisticated navigation program and assure reliable target location.

Magnetic Remote Sensing

An EG&G Geometrics 882 dual channel cesium vapor magnetometer capable of plus or minus 0.1 gamma resolution will be employed to collect magnetic data in the survey area. To produce the most comprehensive magnetic record, data will be collected on a one-second interval, and the sensor will be deployed and maintained in the water column at a depth of 10 to 12 feet above the bottom surface unless shallow water dictates otherwise. A computer will provide a continuous permanent record of the magnetic background and target signatures. Because of the historical nature of the area, magnetic data will be collected along transects spaced on 15-meter intervals.

Investigators may return to the location of each significant anomaly and re-survey those targets by using a closer lane spacing (5-meter) to further refine the magnetic signature if necessary. Magnetic data will be recorded on both an analog recorder and as a data file associated with the computer navigation system. Data from the survey area will be contour plotted using QuickSurf software to facilitate anomaly location and definition of target signature characteristics. All magnetic data will be correlated with the acoustic remote-sensing records.

Acoustic Remote Sensing

Sidescan Sonar

A Klein 3900 digital 600/1200kHz high-resolution sidescan sonar will be employed to collect digital acoustic data in the survey area. During the survey, the sidescan sonar transducer will be deployed and maintained at approximately 10-foot elevation above the bottom surface unless shallow water dictates otherwise. Acoustic data will be collected along transects spaced on 15-meter intervals. Range sonar scales will be selected to provide a combination of 200% coverage of the survey area and high target signature definition. Acoustic data will be recorded digitally and tied to the magnetic and positioning data by the computer navigation system event-marking program.

Sub-bottom Profiler

An EDGETECH 3100 high-resolution digital sub-bottom profiler (SBP) with a 216 transducer will be employed to collect seismic acoustic data in the survey area. During the survey, the transducer will be deployed and maintained at a 10-foot elevation above the bottom surface unless shallow water dictates otherwise. SBP data will also be collected along transects spaced on 15-meter intervals. Additional lanes may be run in the vicinity of anomalies to enhance target signature definition. SBP acoustic data will be recorded as a data file and tied to the magnetic data by regular DGPS annotations.

Positioning System

The remote-sensing survey will run on a digitized navigation chart of the project area. A DGPS will be used to control navigation and data collection in the survey area. The DGPS system has sub-meter accuracy and can be used to generate precise coordinates for the computer navigation system. A TRIMBLE dedicated DGPS will be used. The DGPS will be operated in conjunction with an on-board laptop loaded with HYPACK navigation and data collection software. All magnetic and acoustic records will be tied to positioning events generated by HYPACK and magnetic data will be stored in the computer in conjunction with DGPS generated positioning coordinates.

Data Analysis

All data will be reviewed by TAR's principal investigator. Target signatures suggestive of significant submerged cultural material will be isolated and analyzed in accordance with anomaly intensity, duration, areal extent, and signature characteristics suggestive of the material generating the anomaly. Analysis of each target signature will include consideration of magnetic and acoustic signature characteristics previously demonstrated to be reliable indicators of historically significant submerged cultural resources. Assessment of each target will include recommendations for additional investigation to determine the exact nature of cultural material generating the signature and potential National Register of Historic Places (NRHP) significance. Data collected from any previously conducted surveys of the bridge site will also be examined.

Previously collected historical evidence will be enhanced by an Internet survey and developed into a background context and an inventory of shipwreck sites that identifies possible correlations with magnetic targets. A magnetic contour map of the survey area will be produced to aid in the analysis of each target. The contour map will include target location, South Carolina state plane coordinates; bar scale and north arrow; the locations of channel beacons and buoys, channel alignments, and any cable and pipeline crossings within the project area. To accompany the contour map, TAR will prepare a table listing all magnetic anomalies, sonar targets and potentially significant sub-bottom features located during the survey. This table will include project name, survey area, target number, coordinates, and signature characteristics. Each line of sidescan sonar data will be analyzed and a coverage mosaic prepared to illustrate the report document. Likewise, each line of SBP data will be reviewed for targets associated with anomalies and sonar targets.

Report Deliverables

Following the completion of fieldwork, the TAR principal investigator will report to the designated HDR *Point of Contract* (POC) by email. That written report will include discussion of the work accomplished, problems resolved, and findings in order that the HDR POC will be able to assess the work. TAR will follow up initial communications with a *Management Summary* within 10 business days following completion of the fieldwork. The *Management Summary* will briefly describe the field methods used. The results will be described in sufficient detail to provide a basis for specific recommendations of significance for identified magnetic anomalies. The summary will also include a magnetic anomaly map showing the South Carolina state plane coordinates of all anomalies identified as potentially significant and recommendations for additional evaluation of targets determined to represent potentially significant historic resources.

Unless an inordinate volume of anomalies are identified in the survey area that require intense evaluation, TAR will submit a digital illustrated draft report within 35 business days after completion of the fieldwork. The report will strictly adhere to requirements set forth by the South Carolina SHPO and by SCIAA and will include a thorough project treatment describing the purpose, methodology, and results of the field investigations that will satisfy Section 106 mandates.

Documentation of the submerged cultural resource survey will include a description of the methodology employed, identification of the equipment and personnel, and a target specific assessment of the data and a literature search to determine possible locations of historical shipwrecks in the proposed project area. Recommendations for buffer zones to avoid disturbance of material generating the target signature and/or additional investigation will also be included in the draft report. A South Carolina Master Site File survey log sheet will accompany the draft and final document. Following review by all state and Federal stakeholders, and incorporation of all reviewer comments, the final report document will be submitted to the HDR POC within 10 business days.

Experience Qualifications

Based in Washington, North Carolina, TAR was formed in July 1979 [inc. 1988] to provide historical and archaeological research and cultural resources management services to state and Federal agencies, institutions, corporations, and organizations requiring specialized skills. In order to

provide the most appropriate combination of skills and experience, each project is organized on an individual basis selecting personnel from a nucleus group with professional backgrounds in underwater, prehistoric, and historic archaeology, historical research and writing, cultural resource location, identification, assessment, management, and mitigation.

As the successful conduct of submerged cultural resource investigations requires the use of sophisticated technology, staff experience includes expertise in both acoustic and magnetic remote sensing, self contained and surface supplied compressed air or mixed gas diving operations, underwater photographic and video documentation, and artifact analysis and conservation. To ensure sensitivity to each project's requirements and objectives, TAR maintains the flexibility to provide any combination of support and assistance from problem-oriented consultation and service assistance to complete project development, conduct, and reporting.

For the past 41 years, TAR has carried out high-quality survey and assessment operations for a variety of Federal agencies that include: the U.S. Navy; NOAA, U.S. Department of Justice, U.S. Marine Corps, Bureau of Ocean Energy Management, National Park Service, Naval Historical Center, and several U.S. Army Engineer Districts; New York, Philadelphia, Baltimore, Norfolk, Wilmington, Charleston, Savannah, Jacksonville, and Mobile. State and municipal client agencies, museums, and colleges include: South Carolina Department of Highways and Public Transportation; Georgia Department of Transportation (DOT); North Carolina DOT, Virginia DOT; Maryland DOT; University of South Carolina, Institute of Archaeology and Anthropology; Virginia Department of Historic Resources; Virginia Port Authority; City of Alexandria, Virginia; National Civil War Naval Museum; Bermuda Maritime Museum; St. Augustine Lighthouse Museum, Tampa Aquarium, and the Martin County [Florida] Historical Society-Elliott Museum. TAR has provided cultural resource consultation to engineering and private firms that include; APTIM; Brockington & Associates, Chicago Bridge & Iron; Coastal Planning & Engineering, Coastal Science & Engineering, Olsen Associates, Applied Technology and Management; Tetra Tech, The SHAW Group, Panamerican Consultants, Moffatt and Nichol; The Wooten Company, Carter & Sloope, and The Brigman Company.

TAR operates out of a primary facility in Washington, North Carolina. The 4,000-square-foot structure contains office, library, engineering, laboratory and storage space and a complete range of computer related engineering and office equipment. TAR maintains in-house a complete line of remote-sensing and positioning equipment and six survey vessels ranging from 16 to 32 feet to support those operations. Diving operations can be carried out from several suitable surface support platforms using available and communications equipped surface supplied and/or SCUBA equipment. A complete inventory of pumps, compressors, dredges, underwater photographic and television equipment, hand held object locators, grids and mapping equipment is available to support all phases of underwater archaeological investigations. Both space and equipment are available to clean, record and conserve archaeological material. TAR provides appropriate hardware and software necessary for field data analysis and report production. Relevant software includes AutoCAD, Rhinoceros, ArcView, HYPACK, QuickSurf, and Chesapeake Technology SONAR WIZ.

Proposed Key Project Personnel

Gordon P. Watts, Jr., Director of TAR, will serve as the Principal Investigator. As such he will design and supervise all project activities. As necessary, qualified remote-sensing operators will serve as field personnel. Report preparation and computer graphics will be prepared by Gordon Watts and Senior Historian Robin Arnold. All project personnel exceed the minimum qualifications established by the U.S. Department of Interior. TAR has the personnel, equipment and experience to complete every aspect of the work identified in the request for proposals. Personnel identified in our proposal have extensive experience in maritime history and underwater archaeology and have participated in numerous submerged cultural resource projects in the State of South Carolina. TAR personnel have carried out underwater archaeological research projects in Charleston County, Berkeley County, Georgetown County, Beaufort County, Williamsburg County, and Jasper County. All personnel identified in this proposal have extensive experience in conducting submerged cultural resource investigations in environments such as the Ashley River.

Gordon P. Watts, Jr., Principal Investigator

Gordon Watts experience in maritime history and underwater archaeology spans more than 50 years. That experience has been accumulated in a variety of positions that included responsibility for program administration, cultural resource management, academic and public education and historical and underwater archaeological research and writing. Dr. Watts holds a M.A. degree in History from East Carolina University in Greenville, North Carolina and a Ph.D. in Maritime History from the University of St. Andrews in Fife, Scotland. He currently serves as the director of TAR and the director of the Institute for International Maritime Research, a non-profit research institute. Dr. Watts retired in January 2001 from East Carolina University (ECU) serving the university's Program in Maritime History and Nautical Archaeology as a professor of Nautical Archaeology for 20 years.

From 1972 until 1981, Dr. Watts was employed by the North Carolina Department of Cultural Resources. After serving for several years as an underwater archaeologist, Dr. Watts was placed in charge of the Underwater Archaeology Branch in 1978. That unit was created to make management of North Carolina's submerged cultural resources more effective. Activities of the branch included development of a submerged cultural resource management plan, survey and planning, grant development, environmental review, education (public and academic), contract administration, public information, preservation and historic and archaeological research. In addition to activities related to resource management, the Branch cooperated with the National Oceanic and Atmospheric Administration in developing research and management programs for the USS *Monitor* National Marine Sanctuary.

In 1981, Dr. Watts accepted a teaching and administrative position with ECU to assist in establishing the Program in Maritime History and Nautical Archaeology. That program was designed and organized to provide graduate educational opportunities in maritime history and underwater archaeology. Today that program includes both traditional courses in history and field research experience involving site location, identification, testing and excavation projects. Since 1981, Dr. Watts' grant and university-supported field research projects have included remote sensing and/or site specific investigations along the Atlantic Seaboard, in the Great Lakes and Gulf of Mexico, Europe, Bermuda and in a number of islands in the Caribbean and West Indies.

Shipwreck experience related to those areas includes sites that date from the period of exploration in the early sixteenth century to the American Civil War. Much of that work has involved the excavation, recovery, and documentation of the sixteenth century Western Ledge Reef Wreck and the excavation and documentation of vessels such as the seventeenth century *Stonewall* and New Old Spaniard wrecks and the nineteenth century French frigate *L'Herminie* in Bermuda. In the United States Dr. Watts' experience in excavation and documentation includes the eighteenth century British transport *Betsy* and Cornwallis Cave Wrecks at Yorktown, Virginia; the *El Nuevo Constante* off the Louisiana coast; a variety of late eighteenth and early nineteenth century sail and steam wrecks at Savannah, Georgia; a nineteenth century schooner in the Cape Fear River at Wilmington, North Carolina; and a variety of Great Lakes vessels that include a steam powered lightship, several grain and ore carriers, and fishing and lumber schooners. Dr. Watts has also directed research on a variety of Civil War vessels that include blockade runners, blockade vessels, and gunboats such as the C.S.S. *Chattahoochee* and U.S.S. *Southfield* and the ironclads U.S.S. *Monitor*, U.S.S. *Tecumseh*, C.S.S. *North Carolina*, C.S.S. *Richmond*, and C.S.S. *Jackson*.

Dr. Watts also serves in a variety of capacities to assist the National Oceanic and Atmospheric Administration in developing a program for protecting, investigating, and developing the remains of the U.S.S. *Monitor*, the Canadian Government with research and management of the War of 1812 schooners *Hamilton* and *Scourge*, and the French Association C.S.S. *Alabama* with research and management of the Confederate commerce raider C.S.S. *Alabama*.

Robin Arnold, Senior Historian

Ms. Arnold received a B.A. in History and Political Science from ECU and completed the course requirements for an M.A. in History at that institution. She has assisted with archival research and writing, editing, report preparation and GIS development at Tidewater Atlantic Research since 1988. Since 1993, Ms. Arnold has been the office manager for TAR. In that capacity, she has also been responsible for general business matters, proposal development, and contract administration. In 2005, Ms. Arnold received certification by NOAA for a Coastal Application, ArcGIS training module and similar instruction. In regard to Historic Preservation & Cultural Resource Management, Ms. Arnold serves as the Section 106 Compliance Specialist for TAR. In 2010, Ms. Arnold received certifications by the Advisory Council on Historic Preservation for *Section 106 Essentials* and *Advanced Section 106* training. In 2012, Ms. Arnold received certification from the National Preservation Institute for *Identification and management of Traditional Cultural Places* training.

Summary

TAR has the personnel, equipment and experience to work in conjunction with HDR to complete every aspect of the work for the proposed survey project. Personnel identified in our proposal have extensive experience in maritime history and underwater archaeology and have participated in submerged cultural resource research in the State of South Carolina. TAR personnel have carried out numerous underwater archaeological research projects in South Carolina for the South Carolina Department of Transportation, the USACE-Charleston District, the U.S. Navy, and numerous private organizations and engineering firms.

The proposed methodology combines state-of-the-art technology, highly experienced personnel, and an investigative plan designed to generate the appropriate remote-sensing data. Equipment for the project will be selected to provide maximum reliability and economy in target location, relocation, identification, documentation, assessment, and investigation. Personnel responsible for remote sensing investigations have been selected to combine a variety of individual talents and extensive, area specific submerged cultural resource research and management experience. That experience provides assurance of maximum operational efficiency, safety, and a professional assessment of the data. The research methodology will assure a systematic scientific approach designed to ensure the generation of appropriate data, yet retain the operational flexibility essential to the success of field investigations.

Archaeological Remote Sensing Survey & Technical Report Preparation
Bike/Pedestrian Bridge on the Ashley River
Charleston, South Carolina

Detailed Fixed Price Proposal

26-Jun-20

Mobilization, Demobilization, Travel and Remote Sensing Survey

	Units (da	Unit Cost	Total
Personnel			
Principal Investigator	3	$350	$1,050.00
Archaeologist/Remote Sensing Operator	1	$300	$300.00
Remote Sensing Operator	1	$250	$250.00
Overhead		0.98	$1,568.00
		Sub total	**$3,168.00**
25' Survey Boat (With Fuel and Dockage)	1	$1,050.00	$1,050.00
882 Cesium Magnetometer & Computer	1	$250.00	$250.00
Klein 3900 Sidescan Sonar	1	$550.00	$550.00
DGPS & Computer Marine Navigation Syste	1	$200.00	$200.00
Edgetech CHIRP Subbottom Profiler	1	$550.00	$550.00
		Sub total	**$2,600.00**
Travel (domestic)			
Lodging	1	$125.00	$125.00
Per diem	2	$44.00	$88.00
Mileage (towing)	728	$0.98	$713.44
Mileage	255	$0.42	$107.10
		Sub total	**$1,033.54**
Mobilization, Travel and Remote Sensing Survey		**Total**	**$6,801.54**

Historical Research Data Analysis & Report Preparation

	Units (days)	Unit Cost	Total
Personnel			
Principal Investigator	3	$350.00	$1,050.00
Senior Archaeologist		$250.00	$0.00
Senior Historian	4	$250.00	$1,000.00
Computer Graphics Technician	2	$225.00	$450.00
Administrative & Clerical	1	$165.00	$165.00
Overhead		0.98	$2,611.70
		Sub total	**$5,276.70**
Travel			
Lodging	0	$125.00	$0.00
Per diem	0	$42.00	$0.00
Airfare	0	$0.00	$0.00
Mileage	0	$0.42	$0.00
		Sub total	**$0.00**
Publishing			
Printing & Binding Cost	5	$45.00	$225.00
Graphics	2	$40.00	$80.00
Supplies	1	$30.00	$30.00
		Sub total	**$335.00**
Data Analysis & Report Preparation			**$5,611.70**
Detailed Fixed Price Proposal		**Total**	**$12,413.24**

Tidewater Atlantic Research, Inc.
P.O. Box 2494
Washington, N.C. 27889

Additional Info

DBE/WBE/MBE/AA Statistics

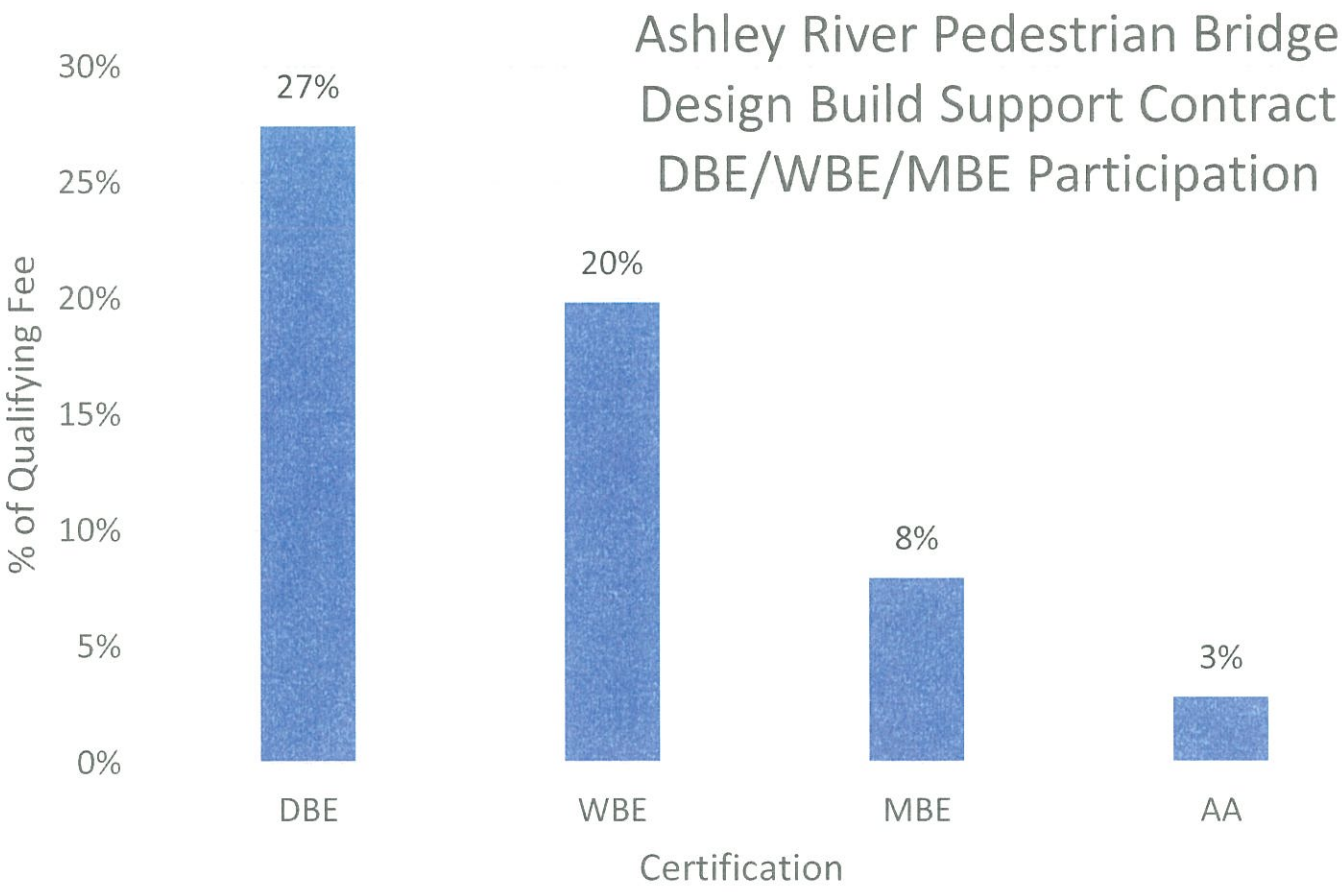
Independent Fee Summary

Negotiated Fee Summary

Preaward Cost Approval Request

Ashley River Pedestrian Bridge
Design Build Support Contract
DBE/WBE/MBE Participation
CHS CP-2007

	DBE	WBE	MBE	AA	Fee	DBE	WBE	MBE	AA
HDR					$1,242,663.88	-	-	-	-
Alta					$44,335.01	-	-	-	-
Bihl	x	x			$42,616.06	$42,616.06	$42,616.06	-	-
Atlantic South	x		x	x	$49,443.07	$49,443.07	-	$49,443.07	$49,443.07
Cornerstone	x		x		$103,221.91	$103,221.91	-	$103,221.91	-
McKim and Creed					$73,917.18	-	-	-	-
Stantec					$96,884.90	-	-	-	-
DESA	x	x	x	x	$7,500.00	$7,500.00	$7,500.00	$7,500.00	$7,500.00
Mid Atlantic Drilling	x	x			$160,000.00	$160,000.00	$160,000.00	-	-
Soil Consultants	x	x			$45,405.00	$45,405.00	$45,405.00	-	-
Providence Engineering Consultants	x	x			$143,125.80	$143,125.80	$143,125.80	-	-
					$2,009,112.81	$551,311.84	$398,646.86	$160,164.98	$56,943.07


Ashley River Pedestrian Bridge
Design Build Support Contract
DBE/WBE/MBE Participation
% of Qualifying Fee
30%
25%
20%
15%
10%
5%
0%
27%
20%
8%
3%
DBE
WBE
MBE
AA
Certification

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 174,835.86	$ -	$ -	$ 174,835.86	9.6%
02	Field Surveys (Supplemental)	$ 144,751.33	$ 19,210.00	$ -	$ 163,961.33	9.0%
03	Traffic Studies and Modeling	$ 61,221.53	$ 40,580.00	$ -	$ 101,801.53	5.6%
04	Environmental Services	$ 110,956.16	$ -	$ -	$ 110,956.16	6.1%
05	Roadway and Path Design	$ 105,868.11	$ -	$ -	$ 105,868.11	5.8%
06	Structural Design	$ 76,718.60	$ -	$ -	$ 76,718.60	4.2%
07	Hydrology and Hydraulic Design	$ 70,906.10	$ -	$ -	$ 70,906.10	3.9%
08	Geotechnical Services	$ 60,621.16	$ 2,700.00	$ 140,000.00	$ 203,321.16	11.2%
09	Utility Coordination	$ 24,774.08	$ -	$ -	$ 24,774.08	1.4%
10	SUE	$ 19,830.39	$ 72,260.80	$ -	$ 92,091.19	5.1%
11	Right of Way	$ -	$ -	$ 75,000.00	$ 75,000.00	4.1%
12	Development of RFQ and RFP	$ 72,737.53	$ -	$ -	$ 72,737.53	4.0%
13	Procurement	$ 172,804.46	$ -	$ -	$ 172,804.46	9.5%
14	Design Plan Review and Administration	$ 371,645.60	$ -	$ -	$ 371,645.60	20.4%
15	Design Contingency	$ -	$ -	$ -	$ -	-
16	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,467,670.91	$ 134,750.80	$ 215,000.00	$ 1,817,421.71	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 59,978.00	$ 98,963.70	$ 15,894.16	$ -	$ 174,835.86	$ -	$ 174,835.86
02	Field Surveys (Supplemental)	$ 49,657.40	$ 81,934.71	$ 13,159.22	$ -	$ 144,751.33	$ 19,210.00	$ 163,961.33
03	Traffic Studies and Modeling	$ 21,002.24	$ 34,653.70	$ 5,565.59	$ -	$ 61,221.53	$ 40,580.00	$ 101,801.53
04	Environmental Services	$ 38,063.86	$ 62,805.37	$ 10,086.93	$ -	$ 110,956.16	$ -	$ 110,956.16
05	Roadway and Path Design	$ 36,318.39	$ 59,925.35	$ 9,624.37	$ -	$ 105,868.11	$ -	$ 105,868.11
06	Structural Design	$ 26,318.56	$ 43,425.62	$ 6,974.42	$ -	$ 76,718.60	$ -	$ 76,718.60
07	Hydrology and Hydraulic Design	$ 24,324.56	$ 40,135.52	$ 6,446.02	$ -	$ 70,906.10	$ -	$ 70,906.10
08	Geotechnical Services	$ 20,796.28	$ 34,313.86	$ 5,511.02	$ -	$ 60,621.16	$ 2,700.00	$ 63,321.16
09	Utility Coordination	$ 8,498.83	$ 14,023.07	$ 2,252.18	$ -	$ 24,774.08	$ -	$ 24,774.08
10	SUE	$ 6,802.88	$ 11,224.75	$ 1,802.76	$ -	$ 19,830.39	$ 72,260.80	$ 92,091.19
11	Right of Way	$ -	$ -	$ -	$ -	$ -	$ -	$ -
12	Development of RFQ and RFP	$ 24,952.84	$ 41,172.19	$ 6,612.50	$ -	$ 72,737.53	$ -	$ 72,737.53
13	Procurement	$ 59,281.12	$ 97,813.85	$ 15,709.49	$ -	$ 172,804.46	$ -	$ 172,804.46
14	Design Plan Review and Administration	$ 127,494.20	$ 210,365.43	$ 33,785.97	$ -	$ 371,645.60	$ -	$ 371,645.60
15	Design Contingency	$ -	$ -	$ -	$ -	$ -	$ -	$ -
16	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 503,489.16 (A)	$ 830,757.12 (B)	$ 133,424.63 (C)	$ - (D)	$ 1,467,670.91 (E)	$ 134,750.80 (F)	$ 1,602,421.71

Summary of DBE Qualifying Fees

	Total Fee	Qual. Percentage	Qualifying Fee
HDR	$ 1,602,421.71		$ -
ROW	$ 75,000.00		$ -
Geotech	$ 140,000.00		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -
	$ -		$ -

Fee Summary

A - Direct Labor	$	**503,489.16**
B - Overhead [A x 1.65]	$	**830,757.12**
C - Profit [(A+B) x 0.1]	$	**133,424.63**
D - FCCM [A x 0]	$	**-**
E - Labor Total	$	**1,467,670.91**
F - Total Non-Salary Direct Expenses	$	**134,750.80**
G - Subconsultant Fees	$	**215,000.00**
Fee Total	$	**1,817,421.71**

fee total less profit $1,683,997.08

Project Fee Summary

Fee Totals Broken Down by Task

Task	Task Description	Labor	Directs	Subs	Total	
01	Project Organization and Management	$ 136,599.41	$ 1,049.25	$ -	$ 137,648.66	6.9%
02	Aerial Mapping and Field Surveys	$ -	$ -	$ 126,320.09	$ 126,320.09	6.3%
03	Traffic Studies and Modeling	$ 33,578.58	$ 118.00	$ 7,143.55	$ 40,840.13	2.0%
04	Environmental Services	$ 172,131.80	$ 15,523.24	$ 19,679.60	$ 207,334.64	10.3%
05	Roadway and Path Design	$ 37,305.14	$ 394.25	$ 98,535.06	$ 136,234.45	6.8%
06	Structural Design	$ 131,176.09	$ 2,018.50	$ -	$ 133,194.59	6.6%
07	Hydrology and Hydraulic Design	$ 53,569.53	$ 357.25	$ 20,775.59	$ 74,702.37	3.7%
08	Geotechnical Services and Pavement Design	$ 91,352.77	$ 10,821.00	$ 205,405.00	$ 307,578.77	15.3%
09	Utility Coordination	$ -	$ -	$ 35,339.35	$ 35,339.35	1.8%
10	Subsurface Utility Engineering	$ -	$ -	$ 50,820.00	$ 50,820.00	2.5%
11	Right of Way	$ 14,292.81	$ 64,569.10	$ -	$ 78,861.91	3.9%
12	Development of RFQ and RFP	$ 40,608.88	$ 708.50	$ 103,101.11	$ 144,418.49	7.2%
13	Procurement	$ 77,292.85	$ -	$ 45,745.22	$ 123,038.07	6.1%
14	Design Plan Review and Administration	$ 359,196.93	$ -	$ 53,701.17	$ 412,898.10	20.6%
15	CE&I	$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
		$ -	$ -	$ -	$ -	-
	Totals	$1,147,104.79	$ 95,559.09	$ 766,565.74	$2,009,229.62	

HDR

Task	Task Description	Direct Labor	Overhead	Profit	FCCM	Labor Total	Directs	Total
01	Project Organization and Management	$ 49,410.00	$ 74,515.24	$ 12,392.53	$ 281.64	$ 136,599.41	$ 1,049.25	$ 137,648.66
02	Aerial Mapping and Field Surveys	$ -	$ -	$ -	$ -	$ -	$ -	$ -
03	Traffic Studies and Modeling	$ 12,145.86	$ 18,317.18	$ 3,046.31	$ 69.23	$ 33,578.58	$ 118.00	$ 33,696.58
04	Environmental Services	$ 62,262.60	$ 93,898.21	$ 15,616.09	$ 354.90	$ 172,131.80	$ 15,523.24	$ 187,655.04
05	Roadway and Path Design	$ 13,493.82	$ 20,350.03	$ 3,384.38	$ 76.91	$ 37,305.14	$ 394.25	$ 37,699.39
06	Structural Design	$ 47,448.32	$ 71,556.81	$ 11,900.51	$ 270.45	$ 131,176.09	$ 2,018.50	$ 133,194.59
07	Hydrology and Hydraulic Design	$ 19,376.88	$ 29,222.28	$ 4,859.92	$ 110.45	$ 53,569.53	$ 357.25	$ 53,926.78
08	Geotechnical Services and Pavement Design	$ 33,043.64	$ 49,833.11	$ 8,287.67	$ 188.35	$ 91,352.77	$ 10,821.00	$ 102,173.77
09	Utility Coordination	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	Subsurface Utility Engineering	$ -	$ -	$ -	$ -	$ -	$ -	$ -
11	Right of Way	$ 5,169.92	$ 7,796.75	$ 1,296.67	$ 29.47	$ 14,292.81	$ 64,569.10	$ 78,861.91
12	Development of RFQ and RFP	$ 14,688.82	$ 22,152.22	$ 3,684.11	$ 83.73	$ 40,608.88	$ 708.50	$ 41,317.38
13	Procurement	$ 27,957.96	$ 42,163.39	$ 7,012.15	$ 159.35	$ 77,292.85	$ -	$ 77,292.85
14	Design Plan Review and Administration	$ 129,926.80	$ 195,942.60	$ 32,586.95	$ 740.58	$ 359,196.93	$ -	$ 359,196.93
15	CE&I	$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
		$ -	$ -	$ -	$ -	$ -	$ -	$ -
	Totals	$ 414,924.62 (A)	$ 625,747.82 (B)	$ 104,067.29 (C)	$ 2,365.06 (D)	$ 1,147,104.79 (E)	$ 95,559.09 (F)	$ 1,242,663.88

Summary of DBE Qualifying Fees

	Total Fee	Qualifying Portion	Qualifying Fee
HDR	$ 1,242,663.88		$ -
Alta	$ 44,335.01		$ -
Bihl	$ 42,616.06	100.0%	$ 42,616.06
Atlantic South	$ 46,212.04	100.0%	$ 46,212.04
Cornerstone	$ 103,222.91	100.0%	$ 103,222.91
McKim & Creed	$ 73,917.18		$ -
Stantec	$ 96,884.90		$ -
DESA	$ 7,500.00	100.0%	$ 7,500.00
Mid Atlantic Drilling	$ 160,000.00	100.0%	$ 160,000.00
Soil Consultants	$ 45,405.00	100.0%	$ 45,405.00
Providence Engineering Consultants	$ 146,472.64	100.0%	$ 146,472.64
	Total DBE Qualifying Fee		$ 551,428.65
	Percentage of Fee Total		27.4%

Fee Summary

A - Direct Labor	$	**414,924.62**
B - Overhead [A x 1.5081]	$	**625,747.82**
C - Profit [(A+B) x 0.1]	$	**104,067.29**
D - FCCM [A x 0.0057]	$	**2,365.06**
E - Labor Total	$	**1,147,104.79**
F - Total Non-Salary Direct Expenses	$	**95,559.09**
G - Subconsultant Fees	$	**766,565.74**
Fee Total	$	**2,009,229.62**

fee total less profit $1,905,162.33

Prepared by _____

John J. Tecklenburg
Mayor

City of Charleston
South Carolina
Department of Parks

Jason Kronsberg
Director

September 9, 2020

FHWA S.C. Division Office
1835 Assembly St Suite#1270
Columbia, SC 29201

ATTN: Emily Lawton, Division Administrator
Email: emily.lawton@dot.gov
Phone: (503) 316-2545

Subject: Pre-Award Cost Request

Dear Mrs. Lawton:

The City of Charleston, South Carolina requests US DOT approval for pre-award costs incurred prior to executing the Grant Agreement for the Ashley River Crossing Project (FY 2019 BUILD Grant). The City seeks approval for costs incurred in carrying out design-build support services which will include (but are not limited to) preliminary design, NEPA studies, and development of the necessary design-build contract documents. Funding of these services will be through local funding and it is our desire to apply these costs towards the match requirements for the project. No BUILD Grant funds will be used to complete these support services as the total Grant award will be utilized to deliver the subsequent design-build contract.

The City of Charleston finalized the detailed scope of work with the selected consultant and developed an independent cost estimate. A copy of this estimate with a fee total of $1,817,421.71 is attached. At this point the City has completed cost and fee negotiations with the consultant, a copy of the final fee estimates of $2,009,112.81 is attached. The differences in these two costs are $191,691.10 or 10%. The difference is cost was due to a change of scope that resulted in changes to roadway design, geotechnical, environmental documentation, and structural design. Initially the City of Charleston understood that seismic design was not required. Ultimately the Scope of Work was amended to include seismic considerations which impacted each of these impacted tasks. The procurement process used for consultant selection and contract preparation was done in close coordination with your staff to ensure that the work to be performed can count towards the project match requirements.

It is imperative that the design-build support services begin very soon after we execute the consultant contract. Our schedule shows this work to begin no later than October 1, 2020. This will allow the City to complete all project development activities while we finalize the Grant Agreement with FHWA. In doing so, the City will be able to submit a final Design-Build

Request for Proposal document to FHWA for approval and obligation of funding prior to the September 2021 deadline. Delaying a notice to proceed for this work until the Grant Agreement is signed will prevent us from meeting this critical milestone.

Thank you for considering our request for approval of pre-award costs incurred for this project. If you have any questions or need further information, I can be reached at sciarrot@charleston-sc.gov or 843-735-8915.

Sincerely,

Terri Hubbard-Sciarro, PE
Project Manager

cc: Edmund Most, Deputy Director, Capital Projects, City of Charleston
Jason Kronsberg, Director, Dept of Parks, City of Charleston
Mayor John Tecklenburg, Mayor, City of Charleston