



CITY OF COLUMBIA
AGENDA MEMORANDUM

MEETING DATE: June 21, 2016

DEPARTMENT: Utilities and Engineering

FROM: *Joey Jaco, Director of Utilities and Engineering*

SUBJECT: Emergency Construction Administration and Inspection Services for Crane Creek

PRESENTER: Joey D. Jaco, P.E.

FINANCIAL IMPACT: SC Severe Storms and Flooding 2015 - DR 4241/DR3373;
Funding has been identified as 5529999-SS695401-638400

ORIGINAL BUDGET: Original Estimate of Emergency Work is \$631,913.00

CLEAN WATER 2020?: Yes

FEMA DR-SC4241?: Yes

The above referenced Emergency Procurement addresses emergency work required as a result of the October 2015 1000 year rain event is in the amount of \$529,006.54 and is forwarded for your approval. Michael Baker International was contacted by the City of Columbia to perform assessments, of existing manholes; bidding and documenting repairs to the manholes on both Crane Creek interceptor from Highway 215 to Wilson Road and the Smith Branch outfall from the connection to Crane Creek interceptor to the Highway 277 crossing; construction administration from Hwy 215 to Hwy 321; reconstruction of the Crane Creek sewer bypass; support; and administrative personnel and equipment. (See Emergency Justification Form No. 038)

The City will provide funding for this project via 5529999-SS695401-638400, FEMA Related Funding.

Michael Baker International is a firm headquartered in Coraopolis, PA and has a local office in Columbia, SC. The following sub-consultants will provide additional services:

- Hazen & Sawyer of New York, NY with a local office in Columbia, SC will provide engineering support for required improvements and repairs to damaged sewer system, technical specification, opinion of cost, development of front-end bidding requirements, bidding assistance and bid document interpretation. (\$96,054.00 or 18.2% of the total contract)

- Case Consulting is a MBE firm headquartered in West Columbia, SC will provide construction administration support, site visits, field observation and monitoring of document controls. (\$18,518.00 or 3.5% of the total contract)

- Steadman & Associates is a firm with headquarters in Columbia, SC will provide surveying services. (\$13,500.00 or 2.6% of the total contract)

Services to be performed will impact City Council Districts 1, 2 and portions outside the City limits.

EXHIBIT A

GENERAL SCOPE OF SERVICES FOR EMERGENCY SERVICES RELATED TO CRANE CREEK PROJECT

GENERAL TERMS AND CONDITIONS

The **CONSULTANT** shall only be responsible for the professional quality, technical accuracy, timely completion, and the coordination of all specifications, reports, and other services furnished by the **CONSULTANT** under this **PURCHASE ORDER**.

This Exhibit A is attached to and made a part of the Purchase Order between the **OWNER** and the **CONSULTANT** for professional consulting and engineering services. For elements of the project which are primarily site improvements, described in the referenced Purchase Order, the **CONSULTANT** shall perform professional Basic Services as hereinafter described, which shall include customary civil engineering services.

This Exhibit A sets forth the requirements for the performance of services for the project required under this **PURCHASE ORDER**. The **CONSULTANT** shall perform the scope of work required by this **PURCHASE ORDER** as outlined in accordance with the following requirements:

Under this procurement the **CONSULTANT** shall:

SECTION I – BASIC SERVICES

1. Perform assessments, of existing manholes, bidding and documenting storm related repairs to the manholes on both Crane Creek interceptor from Highway 215 to US 321, the assessment of existing manholes from US 321 to US 21 and the Smith Branch outfall from the connection to Crane Creek interceptor to the Highway 277 crossing as outlined in the attachments 1 and 2. Support and administrative personnel and equipment are included.
2. Monitoring of DBE and Davis Bacon programs during repairs of Bypass and 321- US 21.
3. Preparing a set of reproducible record drawings showing significant changes in the Work made during construction based on marked-up prints, drawings and other data furnished by the **CONTRACTOR**.

MANHOLE ASSESSMENT

1. The **CONSULTANT'S** responsibility to provide manhole assessments to both Crane Creek (approximately 85 manholes) and Smith Branch (approximately 205 manholes) located on the trunk line only as highlighted in attachments 1 and 2. The manhole assessment will be performed visually and with visual aids equipment. No assessment will be done in confined spaces.
The main trunk lines will be assessed by others.
2. **CONSULTANT** will provide manhole assessment in form of written documentation.
3. **CONSULTANT** will provide manhole required repairs / improvements to the manholes.

4. All provided documentation (assessment and recommendation reports) will become part of the bidding documents.

BIDDING PHASE

After authorization to proceed with the Bidding Phase, **CONSULTANT** shall:

1. Assist the **OWNER** in advertising for and obtaining bids for each separate prime contract for construction, materials, equipment and services; and, where applicable, maintain a record of prospective bidders to whom Bidding Documents have been issued, attend pre-bid conferences and receive and process deposits for Bidding Documents.
2. Issue addenda as appropriate to interpret, clarify or expand the Bidding Documents.
3. Consult with and advise **OWNER** as to the acceptability of subcontractors, suppliers and other persons and organizations proposed by the prime contractor(s) (herein called "Contractor(s)") for those portions of the work as to which such acceptability is required by the Bidding Documents.
4. Consult with **OWNER** concerning and determine the acceptability of substitute materials and equipment proposed by Contractor(s) when substitution prior to the award of contracts is allowed by the Bidding Documents.
5. Attend the bid opening, prepare bid tabulation sheets and assist **OWNER** in evaluating bids or proposals and in assembling and awarding contracts for construction, materials, equipment and services.

CONSTRUCTION ADMINISTRATION SERVICES

1. If the original date established for Substantial Completion of the Work is extended, then the term of the Work Authorization may be extended by mutually agreeable terms.
2. The **CONSULTANT** shall provide administration of the Contract for improvements and repairs to damaged sewer system infrastructure between 215 to 321 and reconstruction of bypass only.
3. The **CONSULTANT** shall review and respond to Requests for Information (RFI) and Change Order (CO) requests in a timely and responsive manner. **CONSULTANT** shall thoroughly review the Construction Documents to ensure that the work intent and scope is maintained. If a claim is determined to be valid, Change Order review will include a complete assessment of the cost presented, and a recommendation made to the Owner.
4. Visits to Site and Observation of Construction: In connection with observations of the work while it is in progress:
 - a. **CONSULTANT** shall make visits to the site and participate in construction meetings to observe, as an experienced and qualified design professional, the progress and quality of the

various aspects of **CONTRACTOR(s)**' work. Based on information obtained during such visits and on such observations, **CONSULTANT** shall endeavor to determine in general if such work is proceeding in accordance with the Contract Documents and **CONSULTANT** shall keep **OWNER** informed of the progress of the work.

- b. **CONSULTANT** shall not, during such visits or as a result of such observations of the construction work in progress, supervise, direct or have control over **CONTRACTOR(s)**' work nor shall **CONSULTANT** have authority over or responsibility for the means, methods, techniques, sequences or procedures of construction selected by **CONTRACTOR(s)**, for safety precautions and programs incident to the work of **CONTRACTOR(s)** or for any failure of **CONTRACTOR(s)** to comply with laws, rules, regulations, ordinances, codes or orders applicable to **CONTRACTOR(s)** furnishing and performing their work. Accordingly, **CONSULTANT** can neither guarantee the performance of the construction contracts by **CONTRACTOR(s)** nor assume responsibility for **CONTRACTOR(s)**' failure to furnish and perform their work in accordance with the Contract Documents.
5. **Defective Work:** During such visits and on the basis of such observations, **CONSULTANT** may disapprove of or reject **CONTRACTOR(s)**' work while it is in progress if **CONSULTANT** believes that such work will not produce a completed Project that conforms generally to the Contract Documents or that it will prejudice the integrity of the design concept of the Project as reflected in the Contract Documents.
6. **Interpretations and Clarifications:** **CONSULTANT** with the approval of the City shall issue necessary interpretations and clarifications of the Contract Documents and in connection therewith prepare work supplemental instructions, directive changes and change orders as required.
7. **Shop Drawings:** **CONSULTANT** shall coordinate dissemination of and review (or take other appropriate action in respect of) Shop Drawings (as that term is defined in the Standard General Conditions), samples and other data which **CONTRACTOR(s)** are required to submit, but only for conformance with the design concept of the Project and compliance with the information given in the Contract Documents. Final review and approval of Shop Drawings will be by **OWNER(s)** representative. Such reviews and approvals or other action shall not extend to means, methods, techniques, sequences or procedures of construction or to safety precautions and programs incident thereto.
8. **Substitutes:** **CONSULTANT** shall evaluate and determine the acceptability of substitute materials and equipment proposed by **CONTRACTOR(s)** (but subject to the provision of Section II, paragraph 34), advising **OWNER** who has final review and approval of all substitutions.
9. **Inspections and Tests:** **CONSULTANT** shall coordinate with the **OWNER** the need to require special inspection or testing of the work, and shall receive and review all certificates of inspections, testings and approvals required by laws, rules, regulations, ordinances, codes, orders or the Contract Documents (but only to determine generally that their content complies with the requirements of, and the results certified indicate compliance with, the Contract Documents).
10. **Schedule and Budget:** **CONSULTANT** shall review the project schedule and project construction budget on a monthly basis as provided by the **CONTRACTOR** and advise the **OWNER** of any changes or concerns.
11. **Disputes:** **CONSULTANT** shall act as initial interpreter of the requirements of the Contract Documents and judge of the acceptability of the work thereunder and make decisions on all claims

relating to the acceptability of the work or the interpretation of the requirements of the Contract Documents pertaining to the execution and progress of the work. This will include review and approval of any Change Orders that may arise from these disputes. The City of Columbia will have final determination.

12. Applications for Payment: The **CONSULTANT** shall have all responsibility for reviewing and making recommendations to OWNER(s) Representative on Applications for Payment.
13. **CONTRACTOR(s)**' Completion Documents: **CONSULTANT** shall receive and review maintenance and operating instructions, schedules, guarantees, bonds and certificates of inspection, tests and approvals which are to be assembled by **CONTRACTOR(s)** in accordance with the Contract Documents (but such review will only be to determine that their content complies with the requirements of, and in the case of certificates of inspection, the certified tests and approvals the results of which indicate compliance with, the Contract Documents); and shall transmit them to the **OWNER** with written comments.
14. Inspections: **CONSULTANT** shall conduct an inspection to determine if the work is substantially complete and a final inspection to determine if the completed work is acceptable so that **CONSULTANT** may recommend such to the **Owner** (subject to any conditions therein expressed).
15. Limitation of Responsibilities: **CONSULTANT** shall not be responsible for the act or omissions of any **CONTRACTOR**, or of any subcontractor or supplier, or any of the **CONTRACTOR(s)**' or subcontractor's or supplier's agents or employees or any other persons (except **CONSULTANT**'s own employees and agents) at the site or otherwise furnishing or performing any of the **CONTRACTOR(s)**' work; however, nothing contained in paragraphs B.1 through B.13 inclusive, shall be construed to release **CONSULTANT** from liability for failure to properly perform duties and responsibilities assumed by **CONSULTANT** in the Contract Documents.

SECTION II - SPECIAL SERVICES

SPECIAL SERVICES INCLUDED IN THIS WORK AUTHORIZATION

1. Hazen – Sub Consultant to Michael Baker will provide engineering support for required improvements and repairs to damaged sewer system infrastructure between 215 to 321 only, provide engineering specification and maps for purposes of bidding manhole repairs, review flow monitoring data provided by the City to prioritize areas for investigation, provide on-site engineering support for recommended repairs, review submittals and shop drawings for conformance to the specifications.
2. CASE Consulting – Sub Consultant to Michael Baker shall attend scheduled project meetings, monitoring of document controls for the engineering team to include status of quick turn-around items, field observation reporting on a to be determined basis by MBI, site visits as directed to observe the progress of the work.

These Basic and Special Services, when performed in accordance with acceptable engineering practices, shall be the limits of the **CONSULTANT'S** responsibility under this **PURCHASE ORDER**.

END OF EXHIBIT A

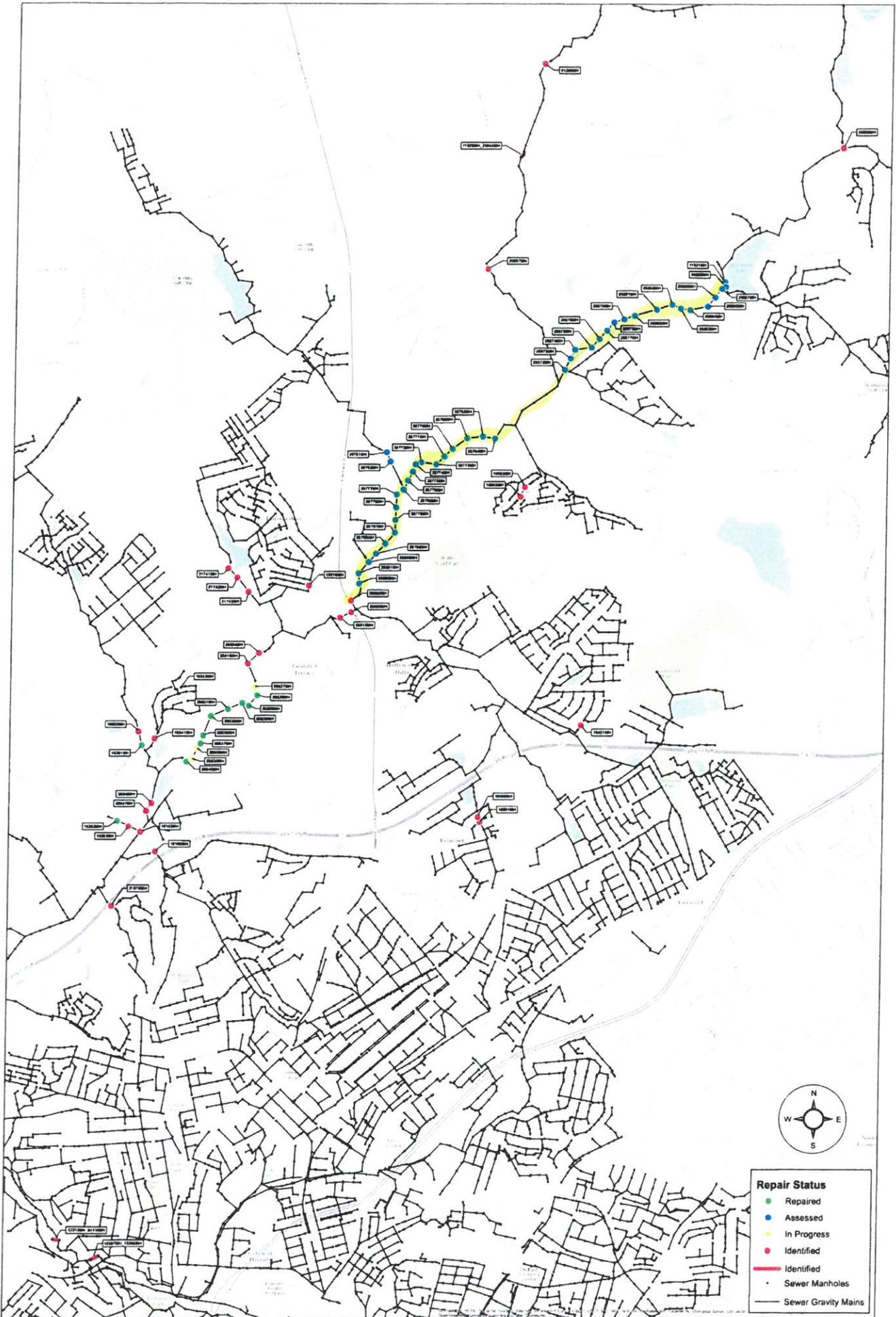


EXHIBIT B
FEE PROPOSAL

City of Columbia
Emergency Services
Related to Crane Creek Project

	Hours	Fee
Project Manager II- Sub Total	1031	\$60,581.56
Construction Specialist II- Sub Total	1296	\$53,796.96
Inspector II- Sub Total	86	\$3,010.00
Technical Manager II	151	\$6,370.49
Office Services Manager III- Sub Total	7.5	\$286.88
Administrative Assistant I - Sub Total	462.92	\$7,925.19
Administrative Assistant II - Sub Total	94.67	\$1,620.75
Administrative Assistant III-Sub Total	2	\$53.02
Emergency Services Total:	5,458	\$133,644.85
Directs (including subs):		\$128,072.00
3.0 Multiplier:		\$400,934.54
Total Proposed CA Fees:		\$529,006.54

Crane Creek Severe Storm Emergency Response Proposal

Consultants:	
CASE Consulting	\$18,518.00
Hazen and Sawyer	\$96,054.00
Steadman & Associates	\$13,500.00
Total Directs:	\$128,072.00

EXHIBIT C
HAZEN FEE PROPOSAL

ATTACHMENT A

Nobels, Didier

From: Orne, Bill <borne@hazenandsawyer.com>
Sent: Tuesday, January 19, 2016 4:06 PM
To: Nobels, Didier
Cc: Leath, Mike; Maciaszek, Troy
Subject: RE: SCOPE - Crane Creek and Smith Brans

[See additional language:](#)

Technical Specifications – Prepare performance based technical specifications in CSI format for all aspects of the work.

Opinion of Cost – Hazen will develop and maintain a detailed cost estimate throughout the design of the work. Formal opinions of probable cost shall be provided at 60% complete, at 90% complete, and at 100% final design. Hazen will provide periodic updates to the City regarding bid opening results from other projects in the region. Hazen will promptly identify any cost impacts resulting from design decisions made by the City and communicate such impacts to the City.

Develop Front-End Bidding Requirements – Prepare bidding and general requirements utilizing the City's standard front-end documents for water and wastewater construction projects.

General requirements to include:

- Summary of Work
- Modification Procedures
- Coordination
- Abbreviations
- Reference Standards
- Project Meetings
- Submittals
- Construction Schedule and Sequence
- Special Inspections
- Quality Control
- Watertightness Testing of Concrete Structures
- Temporary Utilities
- Maintenance of Utility Operations During Construction
- Protection of Existing Facilities
- Demolition and Removal of Existing Structures and Equipment
- Site Access and Storage
- Temporary Environmental Controls
- Field Office, Equipment and Services
- Materials and Equipment
- Equipment Testing and Start-Up
- Project Closeout

Bidding Assistance – Hazen will assist the City with preparing an advertisement for bid and for identifying and contacting potential General Contractors that may be capable and available to conduct the construction. It is acknowledged that the City will be responsible for Contract Document reproduction and distribution to all potential bidders, vendors, and plan rooms.

Pre-Bid Meeting – Attend a pre-bid meeting to describe the project and the requirements of the Contract Documents to interested bidders and respond to questions concerning the project requirement.

Bid Documents Interpretation – During the bid period, Hazen will be available to answer any questions concerning the requirements of the Contract Documents. If required, Hazen will develop and distribute to all plan holders such addenda as may be deemed necessary to clarify or modify the requirements of the Contract Documents to clearly communicate the intent of the work.

**City of Columbia - Crane Creek & Smith Branch Flood Repair
 Completed Hours & Remaining Manhours & Associated Fee**

Item No.	Description	VP (Hrs) \$218	Snr. Assoc (Hrs) \$195	Sr. Princ. Eng (Hrs) \$155	Ast. Eng. (Hrs) \$130	Designer (Hrs) \$93	Admin (Hrs) \$60	Expense	Total Labor Hrs	Total Labor Fee
1	Field Work & Design Previously Completed Expenses Previously Completed	0	112	148	93	71		\$371	424	\$63,473 \$371
	Subtotal	0	112	148	93	71	0		424	\$63,844
2	Field Work & Design left to Complete									
	Front End Documents		2	21					23	\$3,645
	Technical Specifications		2	21					23	\$3,645
	Bid Form		2	8					10	\$1,630
	Contract Exhibits		1	8	16				25	\$3,515
	Construction Schedule		1	5					6	\$970
	Construction Estimate		1	5					6	\$970
	Review & Coordinate MH Exhibits		3	16					19	\$3,065
	Misc. Site Visits			8					8	\$1,240
	QA/QC Review & Meetings		12	12					29	\$5,290
	Subtotal	5	24	104	16	0	0		149	\$23,970
3	Bid Phase Services (IF REQUIRED)									
	Bidding Advertisement		2	8			8		18	\$2,110
	RFI			16					16	\$2,480
	Bid Opening		4	8					12	\$2,020
	Notice of Award, Notice to Proceed		2	4			2		8	\$1,130
	Subtotal	0	8	36	0	0	10		54	\$7,740
4	Estimated Expenses left to Complete									
	Reproduction, Postage, etc.							\$500		\$500
	Subtotal							\$500		\$500.00
	Totals	5	144	288	109	71	10	\$871		\$96,054

Hourly Billing Rate by Classification

Vice President	218
Senior Associate	195
Sr. Principal Engineer	155
Assistant Engineer	130
Designer	93
Administration	60

EXHIBIT D
CASE CONSULTING PROPOSAL



CASE Consulting

840 Shull Street, Suite 210

West Columbia, South Carolina 29169 Bus :

803 . 926. 1600

Fax: 803. 92 6. 1610

Michael Baker International

**Attn: Ms. Angela R. Logan,
Senior Project Administrator**

700 Huger Street

Columbia, South Carolina 29201

Reference: Crane Creek Broad River Project
Emergency Services

Subject: Understanding of Our Role / Fee Proposal

Ms. Logan:

The role of CASE Consulting, Inc. will be to provide assistance to Michael Baker International with the project throughout its duration. This will entail attending the scheduled project meetings, monitoring of document controls for the design team to include status of quick turn-around items, field observation reporting on a to be determine bases by MBI, site visits as directed to observed the progress of work and timeliness of meeting the schedule. These are a sampling of the duties we will perform with and for MBI.

We at CASE Consulting, Inc. understand that the present schedule duration of this project is six months. The fee to provide these services is \$18,518.00.

If our understanding and role is different from what we have interpreted please do not hesitate to contact our office so that we make sure we move forward on one accord. Once again, we appreciate this opportunity.

Regards,
Calvin A. Wise,
CASE Consulting, Inc.

Crane Creek Broad River Project
Emergency Services City Proj. No.:
SS695401
Baker Proj. No.: 145156

EXHIBIT E

STEADMAN AND ASSOCIATES PROPOSAL

Logan, Angela R

From: Leath, Mike
Sent: Thursday, November 05, 2015 11:54 AM
To: Logan, Angela R
Cc: Bates, Marjean E; Michael Sheu (mfsheu@columbiasc.net); Tim Sox (tlsox@columbiasc.net); cwise@casecon.net; Byrd, Glenn
Subject: FW: Crane Creek City of Columbia Control Replacement SS695401

This is what we spoke about earlier today.

-----Original Message-----

From: La Verne Steadman [mailto:lavernesteadman@sc.rr.com]
Sent: Thursday, November 05, 2015 11:52 AM
To: Leath, Mike
Subject: Crane Creek City of Columbia Control Replacement

Mike, as you well know and have seen the afflicted area is still under several feet of water from all the recent rains. Hopefully when we get about a weeks worth of dry weather and some sunshine we can begin re-running control and placing it beyond the immediate construction area. I estimated that once we begin, this work will cost about \$ 13,500.00 to re-establish and set permanent control stations. Thank you and we'll move forward as soon as heavenly possible.

Sincerely.....

C. La Verne Steadman, CEO, S.C.P.L.S. No. 7883 Steadman & Associates, Inc.
3101 Carlisle Street, Suite 103
Columbia, SC 29205
office (803) 799-4500 cell (803) 513-1311