CONTRACT

This contract (the "Contract") entered into this 24 day of April, 2017, and between SHELBY COUNTY GOVERNMENT, hereinafter referred to as "COUNTY", and ACOT ASSOCIATES GROUP, LLC, hereinafter referred to as "CONSULTANT".

WITNESSETH

WHEREAS, the COUNTY has the need for retain the services of up to three engineering consulting firms to provide Hydrologic Engineering Centers River Analysis System ("HEC-RAS") models of the three major drainage basins in Shelby County; and

WHEREAS, The County issued its Request for Qualifications (RFQ) No. 16-005-74, Major Drainage Basins Hydraulic Model on March 9, 2016; and CONSULTANT responded to said RFQ on March 9, 2016; and

WHEREAS, the County wishes to engage three qualified firms who responded to said RFQ to perform separate portions of the work as outlined within said RFQ; and

WHEREAS, the CONSULTANT has the knowledge and expertise to provide such services; and

WHEREAS, the COUNTY awarded the RFQ to CONSULTANT on August 8, 2016;

WHEREAS, the parties are desirous of entering into a contract to initiate CONSULTANT'S Proposal for the COUNTY's Hydraulic model of the Nonconnah Creek portion of the Regional resilience plan presented in the COUNTY's NDR Grant Application approved by the United States Department of Housing and Urban Development for the CDBG-NDR Competition, to provide for the payment of the Fee for said services and provide that the work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended,12 U.S.C. 1701u (section 3), setting forth the terms and conditions under which the CONSULTANT will provide said services.

NOW THEREFORE, for and in consideration of mutual promises and covenants

herein contained, the parties hereto agree as follows:

I. SCOPE OF WORK

The CONSULTANT shall provide the services as outlined within the COUNTY'S RFQ No. 16-005-74 and CONSULTANT's proposal thereto which are attached hereto as Exhibits "A" and "B" respectively and incorporated herein by reference as if stated verbatim (the "Services").

II. TERM AND COMPENSATION

 The term of this Contract (the "Term") will commence upon execution of this Contract and continue until the services are complete.

The COUNTY agrees to compensate the CONSULTANT for the provision of the Services in accordance with Cost Proposal attached hereto as Exhibit "C" and incorporated herein by reference.

In any event, the sum total for the Services provided by CONSULTANT shall not exceed Two Hundred Seventy Seven Thousand Six Hundred Ninety Six and no/100 Dollars (\$277,696.00) (the "Fee") during the term of this Contract which shall include all reimbursable expenses. The Fee is payable in accordance with the schedule included in Exhibit "C".

- 1. The CONSULTANT shall submit invoices to the COUNTY on a monthly basis for Services performed during the preceding month. Invoices shall be submitted in duplicate to the address set forth in the Notice section of this Contract to the attention of Thomas E. Needham, Director, Shelby County Public Works. The COUNTY shall pay such invoices within thirty (30) days of its receipt and approval of said invoices. The COUNTY is not obligated to pay, and will withhold from payment, any amounts the COUNTY has in dispute with the CONSULTANT based on CONSULTANT'S non-performance or negligent performance of any of the Services under this Contract.
- 2. CONSULTANT shall not be permitted or authorized to incur costs beyond the extent that purchase orders have been issued on approved contracts and/or purchases prior to the commencement date, during the term of the contract, and/or subsequent to the termination date of County contracts or purchases without prior, expressly written, appropriate authorization pursuant to County purchasing procedures and rules and regulations. County is not obligated to pay nor shall CONSULTANT be entitled to receive payments for contract fees and expenses incurred in violation of

this provision.

III. GENERAL CONDITIONS

The parties further agree as follows:

1. <u>CONTROL</u>

All Services by the CONSULTANT will be performed in a manner satisfactory to the COUNTY, and in accordance with the generally accepted business practices and procedures of the COUNTY.

CONSULTANT'S PERSONNEL

The CONSULTANT certifies that it presently has adequate qualified personnel to perform all Services required under this Contract. All work performed during the Term of this Contract will be supervised by the CONSULTANT. The CONSULTANT further certifies that all of its employees assigned to serve the COUNTY have such knowledge and experience as required to perform the duties assigned to them. Any employee of the CONSULTANT who, in the opinion of the COUNTY, is incompetent, or whose conduct becomes detrimental to the work, shall immediately be removed from association with the Services under this Contract.

3. <u>INDEPENDENT STATUS</u>

- a. Nothing in this Contract shall be deemed to represent that the CONSULTANT, or any of the CONSULTANT's employees or agents, are the agents, representatives, or employees of the COUNTY. The CONSULTANT will be an independent CONSULTANT over the details and means for performing the Services under this Contract. Anything in this Contract which may appear to give the COUNTY the right to direct the CONSULTANT as to the details of the performance of the Services under this Contract or to exercise a measure of control over the CONSULTANT is solely for purposes of compliance with local, state and federal regulations and means that the CONSULTANT will follow the desires of the COUNTY only as to the intended results of the scope of this Contract.
- b. It is further expressly agreed and understood by CONSULTANT that neither it nor its employees or agents are entitled to any benefits which normally accrue to employees of the COUNTY; that CONSULTANT has been retained by the COUNTY to perform the Services specified herein (not hired) and that the remuneration specified herein is considered fees for the Services performed (not wages) and that invoices submitted to the COUNTY by CONSULTANT for the Services performed shall be on the CONSULTANT's letterhead.

4. REPORTS

CONSULTANT shall prepare and submit quarterly reports of its activities, funded under this Contract, to the originating department and the Contract Administration Department of the COUNTY. The reports shall include an itemization of the use of COUNTY's funds, and shall be inclusive of specific Services delivered. Any such reports provided to the COUNTY shall be prepared with the understanding that the COUNTY may make such reports available to the public. The quarterly reports and all books of account and financial records that are specific to the work performed in accordance with this Contract may be subject to audit by the Director of the Division of Administration and Finance of the COUNTY. The COUNTY shall have the right to withhold future disbursement of funds under this Contract and any future Contracts until this provision has been met.

5. TERMINATION OR ABANDONMENT

- a. It shall be cause for the immediate termination of this Contract if, after its execution, the COUNTY determines that:
 - i) Either the CONSULTANT or any of its principals, partners or corporate officers, if a corporation, including the corporation itself, has pled noto contendere, or has pled or been found guilty of a criminal violation, whether state or federal, involving, but not limited to, governmental sales or purchases, including but not limited to the rigging of bids, price fixing, or any other collusive and illegal activity pertaining to bidding and governmental contracting; or
 - ii) CONSULTANT has subcontracted, assigned, delegated, transferred its rights, obligations or interests under this Contract without the COUNTY's consent or approval; or
 - iii) CONSULTANT has filed bankruptcy, become insolvent or made an assignment for the benefit of creditors, or a receiver, or similar officer has been appointed to take charge of all or part of CONSULTANT assets.
- b. The COUNTY may terminate the Contract upon five (5) days written notice by the COUNTY or its authorized agent to the CONSULTANT for CONSULTANT's failure to provide the Services specified under this Contract.
- c. This Contract may be terminated by either party by giving thirty (30) days written notice to the other, before the effective date of termination (the "Termination Date"). In the event of such termination, the CONSULTANT shall be paid for all Services rendered prior to the Termination Date, provided the CONSULTANT shall have delivered to COUNTY such statements, accounts, reports and other materials as required under this Contract;

however, CONSULTANT shall not be compensated for any anticipatory profits that have not been earned as of the date of the Termination Date. All Services completed by CONSULTANT prior to the Termination Date shall be documented and tangible work documents shall be transferred to and become the sole property of the COUNTY prior to payment for the Services rendered.

d. Notwithstanding the above or any section herein to the contrary, CONSULTANT shall not be relieved of liability to the COUNTY for damages sustained by the COUNTY by virtue of any breach of the Contract by CONSULTANT and the COUNTY may withhold any payments to CONSULTANT for the purpose of setoff until such time as the exact amount of damages due the COUNTY from CONSULTANT is determined.

6. <u>COMPENSATION FOR CORRECTIONS</u>

No compensation shall be due or payable to CONSULTANT pursuant to this Contract for any CONSULTANT's Services performed by the CONSULTANT in connection with effecting of corrections to the design of the Services, when such corrections are required as a direct result of negligence by the CONSULTANT to properly fulfill any of his obligations as set forth in this Contract.

7. <u>SUBCONTRACTING, ASSIGNMENT OR TRANSFER</u>

- a. Any subcontracting, assignment, delegation or transfer of all or part of the rights, responsibilities, or interest of either party to this Contract is prohibited unless by written consent of the other party. No subcontracting, assignment, delegation or transfer shall relieve the CONSULTANT from performance of the Services under this Contract. The COUNTY shall not be responsible for the fulfillment of the CONSULTANT's obligations to its transferors or subcontractors.
- b. Upon the request of the other party, the subcontracting, assigning, delegating or transferring party shall provide all documents evidencing the subcontract, assignment, delegation or transfer.

8. <u>CONFLICT OF INTEREST</u>

The CONSULTANT covenants that it has no public or private interest, and will not acquire directly or indirectly any interest which would conflict in any manner with the performance of the Services. The CONSULTANT warrants that no part of the total Contract Fee shall be paid directly or indirectly to any officer or employee of the COUNTY as wages, compensation, or gifts in exchange for acting as officer, agent, employee, subcontractor or consultant to the CONSULTANT in connection with any work contemplated or performed relative to this Contract.

9. CONTINGENT FEES

The CONSULTANT warrants that it has not employed or retained any company or person other than a bona fide employee working solely for the CONSULTANT, to solicit or secure this Contract, and that it 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, gift, or any other consideration contingent upon or resulting from the award or making of this Contract. For breach or violation of this warranty, the COUNTY will have the right to recover the full amount of such fee, commission, percentage, brokerage fee, gift, or other consideration.

EMPLOYMENT OF COUNTY WORKERS

The CONSULTANT will not engage, on a full, part-time, or any other basis during the Term of the Contract, any professional or technical personnel who are or have been at any time during the Term of the Contract in the employ of the COUNTY.

11. ACCESS TO RECORDS

During all phases of the work and Services to be provided hereunder, CONSULTANT agrees to permit duly authorized agents and employees of the COUNTY to enter CONSULTANT's offices for the purpose of inspections, reviews and audits during normal working hours. Reviews may also be accomplished at meetings that are arranged at mutually agreeable times and places. The CONSULTANT will maintain all books, documents, papers, accounting records, and other evidence pertaining to the Fee paid under this Contract and make such materials available at their offices at all reasonable times during the Term of this Contract and for three (3) years from the date of payment under this Contract for inspection by the COUNTY or by any other governmental entity or agency participating in the funding of this Contract, or any authorized agents thereof. Copies of said records shall be furnished to the COUNTY upon request.

12. ARBITRATION

Any dispute concerning a question of fact in connection with the work not disposed of by agreement between the CONSULTANT and the COUNTY will be referred to an independent and neutral third party for arbitration who shall be chosen by mutual agreement of the Parties hereto and whose decision regarding same will be final. In the event the Parties are unable to mutually agree to the selection of said third party, then they shall petition the Chancery Court of Shelby County, Tennessee for the appointment of same. To the extent permitted by applicable law, all expenses in regard thereto shall be borne equally by said Parties.

13. RESPONSIBILITIES FOR CLAIMS AND LIABILITIES

- a. CONSULTANT shall indemnify, defend, save and hold harmless the COUNTY, and its elected officials, officers, employees, agents, assigns, and instrumentalities from and against any and all claims, liability, losses or damages—including but not limited to Title VII and 42 USC 1983 prohibited acts—that occur in breach of this Contract or in the negligent performance of the Services hereunder, whether performed by the CONSULTANT its subcontractors, agents, employees or assigns. This indemnification shall survive the termination or conclusion of this Contract.
- b. CONSULTANT expressly understands and agrees that any insurance protection required by this Contract or otherwise provided by the CONSULTANT shall in no way limit the responsibility to indemnify, defend, save and hold harmless the COUNTY or its elected officials, officers, employees, agents, assigns, and instrumentalities as herein provided.
- c. The COUNTY has no obligation to provide legal counsel or defense to CONSULTANT or its subcontractors in the event that a suit, claim or action of any character is brought by any person not a party to this agreement against CONSULTANT as a result of or relating to performance of the Services under this Contract.
- d. Except as expressly provided herein, the COUNTY has no obligation for the payment of any judgment or the settlement of any claims against CONSULTANT as a result of or relating to performance of the Services under this Contract.
- e. CONSULTANT shall immediately notify the COUNTY of any claim or suit made or filed against CONSULTANT or its subcontractors regarding any matter resulting from or relating to CONSULTANT's performance of the Services under this Contract and will cooperate, assist and consult with the COUNTY in the defense or investigation thereof.

14. GENERAL COMPLIANCE WITH LAWS

- a. The CONSULTANT certifies that it is qualified or will take steps necessary to qualify to do business in the State of Tennessee and that it will take such action as, from time to time, may be necessary to remain so qualified and it shall obtain, at its expense all licenses, permits, insurance, and governmental approvals, if any, necessary to the performance of the Services under this Contract.
- b. The CONSULTANT is assumed to be familiar with and agrees that at all times it will observe and comply with all federal, state, and local laws, ordinances, and regulations in any manner affecting the performance of the Services. The preceding shall include, but is not limited to, compliance with all Equal Employment Opportunity laws, the Fair Labor Standards Act,

Occupational Safety and Health Administration (OSHA) requirements, and the Americans with Disabilities Act (ADA).

C. This Contract will be interpreted in accordance with the laws of the State of Tennessee. By execution of this Contract, the CONSULTANT agrees that all actions, whether sounding in contract or in tort, relating to the validity, construction, interpretation and enforcement of this Contract will be instituted and litigated in the courts of the State of Tennessee, located in Shelby County, Tennessee, and in no other. In accordance herewith, the parties to this Contract submit to the jurisdiction of the courts of the State of Tennessee located in Shelby County, Tennessee.

15. NON-DISCRIMINATION

The CONSULTANT hereby agrees, warrants, and assures compliance with the provisions of Title VI and VII of the Civil Rights Act of 1964 and all other federal statutory laws which provide in whole or in part that no person shall be excluded from participation or be denied benefits of or be otherwise subjected to discrimination in the performance of this Contract or in the employment practices of the CONSULTANT on the grounds of handicap and/or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee State Constitutional or statutory law. The CONSULTANT shall upon request show proof of such non-discrimination and shall post in conspicuous places available to all employees and applicants notices of non-discrimination.

16. ENTIRE AGREEMENT

This Contract represents the entire and integrated agreement between the parties and supersedes all prior negotiations, representations or agreements, whether oral or written.

17. AMENDMENT

This Contract may be modified or amended only by written instrument signed by both parties.

18. <u>SEVERABILITY</u>

If any provision of this Contract is held to be unlawful, invalid or unenforceable under any present or future laws, such provision shall be fully severable; and this Contract shall then be construed and enforced as if such unlawful, invalid or unenforceable provision had not been a part hereof. The remaining provisions of this Contract shall remain in full force and effect and shall not be affected by such unlawful, invalid or unenforceable provision or by its severance here from. Furthermore, in lieu of such unlawful, invalid, or unenforceable provision, there shall be added automatically as a part of this Contract a legal, valid and enforceable provision as similar in terms to

such unlawful, invalid or unenforceable provision as possible.

19. NO WAIVER OF CONTRACTUAL RIGHT

No waiver of any term, condition, default, or breach of this Contract, or of any document executed pursuant hereto, shall be effective unless in writing and executed by the party making such waiver; and no such waiver shall operate as a waiver of either (a) such term, condition, default, or breach on any other occasion or (b) any other term, condition, default, or breach of this Contract or of such document. No delay or failure to enforce any provision in this Contract or in any document executed pursuant hereto shall operate as a waiver of such provision or any other provision herein or in any document related hereto. The enforcement by any party of any right or remedy it may have under this Contract or applicable law shall not be deemed an election of remedies or otherwise prevent such party from enforcement of one or more other remedies at any time.

20. MATTERS TO BE DISREGARDED

The titles of the several sections, subsections, and paragraphs set forth in this contract are inserted for convenience of reference only and shall be disregarded in construing or interpreting any of the provisions of this Contract.

21. SUBJECT TO FUNDING

This Contract is subject to annual appropriations of funds by the Shelby County Government. In the event sufficient funds for this Contract are not appropriated by Shelby County Government for any of its fiscal period during the Term hereof, then this Contract will be terminated. In the event of such termination, the CONSULTANT shall be entitled to receive just and equitable compensation for any satisfactory work performed as of the Termination Date.

22. TRAVEL EXPENSES

All travel expenses payable under this Contract shall be in accordance with the County Travel Policy and Procedures. This includes advance written travel authorization, submission of travel claims, documentation requirements, and reimbursement rates. No travel advances will be made by the COUNTY.

23. NON-LIABILITY FOR CONSULTANT EMPLOYEE TAXES

Neither CONSULTANT nor its personnel are COUNTY's employees, and COUNTY shall not take any action or provide CONSULTANT's personnel with any benefits and shall have no liability for the following:

a. Withholding FICA (Social Security) from CONSULTANT's payments;

- b. Making state or federal unemployment insurance contributions on behalf of CONSULTANT or its personnel;
- Withholding state and federal income tax from payment to CONSULTANT;
- d. Making disability insurance contributions on behalf of CONSULTANT;
- e. Obtaining workers' compensation insurance on behalf of CONSULTANT or CONSULTANT's personnel.

24. <u>INCORPORATION OF OTHER DOCUMENTS</u>

- a. CONSULTANT shall provide Services pursuant to this Contract in accordance with the terms and conditions set forth within the Shelby County Request for Proposals/Bids as well as the Response of CONSULTANT thereto, all of which are maintained on file within the Shelby County Purchasing Department and incorporated herein by reference.
- b. It is understood and agreed between the parties that in the event of a variance between the terms and conditions of this Contract and any amendment thereto and the terms and conditions contained either within the Request for Proposals/Bids or the Response thereto, the terms and conditions of this Contract as well as any amendment shall take precedence and control the relationship and understanding of the parties.

25. RIGHT TO REQUEST REMOVAL OF CONSULTANT'S EMPLOYEES

The COUNTY may interview the personnel CONSULTANT assigns to COUNTY's work. COUNTY shall have the right, at any time, to request removal of any employee(s) of CONSULTANT, whom COUNTY deems to be unsatisfactory for any reason. Upon such request, CONSULTANT shall use all reasonable efforts to promptly replace such employee(s) with substitute employee(s) having appropriate skills and training.

26. <u>INCORPORATION OF WHEREAS CLAUSES</u>

The foregoing whereas clauses are hereby incorporated into this Contract and made a part hereof.

27. <u>DISCLOSURE OF REPORTS, DATA OR OTHER INFORMATION</u>

Notwithstanding anything to the contrary contained herein or within any other document supplied to COUNTY by CONSULTANT, CONSULTANT understands and acknowledges that COUNTY is a governmental entity subject to the laws of the State of Tennessee and that any reports, data or other information supplied to

COUNTY by CONSULTANT due to Services performed pursuant to this Contract is subject to being disclosed as a public record in accordance with the laws of the State of Tennessee.

28. ORGANIZATION STATUS AND AUTHORITY

- a. CONSULTANT represents and warrants that it is a corporation, limited liability company, partnership, or other entity duly organized, validly existing and in good standing under the laws of the state of Tennessee; it has the power and authority to own its properties and assets and is duly qualified to carry on its business in every jurisdiction wherein such qualification is necessary.
- b. The execution, delivery and performance of this Contract by the CONSULTANT has been duly authorized by all requisite action and will not violate any provision of law, any order of any court or other agency of government, the organizational documents of CONSULTANT, any provision of any indenture, agreement or other instrument to which CONSULTANT is a party, or by which CONSULTANT's respective properties or assets are bound, or be in conflict with, result in a breach of, or constitute (with due notice or lapse of time or both) a default under any such indenture, agreement or other instrument, or result in the creation or imposition of any lien, charge or encumbrance of any nature whatsoever upon any of the properties or assets.

29. INSURANCE REQUIREMENTS

- a. The CONSULTANT shall purchase and maintain, in a company or companies licensed to do business in the State of Tennessee, such insurance as will protect the County from claims which may arise out of or result from the CONSULTANT's operations under the Contract, whether such operations are performed by himself or by any subcontractors or by anyone directly or indirectly employed by any of them, or by anyone for whose acts the CONSULTANT or subcontractor may be liable.
- b. The insurance required shall be written for not less than any limits of liability specified or required by law, whichever is greater. The CONSULTANT will maintain throughout the life of this Contract insurance, through insurers rated A- or better by A.M. Best, in the following minimum requirements. All policies shall provide for thirty (30) days written notice to COUNTY of cancellation or material change in coverage provided. If policy terms and conditions do not allow for notice to COUNTY, CONSULTANT will immediately notify COUNTY and provide evidence of replacement coverage with no lapse.
 - i) Professional Liability Insurance \$1,000,000.00 per claim/\$3,000,000.00 annual aggregate, indicating if coverage is on occurrence basis or claims-made.

- ii) Commercial General Liability Insurance \$1,000,000.00 limit per occurrence bodily injury and property damage/\$1,000,000.00 personal and advertising injury/\$2,000,000.00 General Aggregate/\$2,000,000.00 Products-completed Operations Aggregate, indicating the coverage is provided on a claims-made or on an occurrence basis. Shelby County Government, its elected officials, appointees and employees will be named as additional insured. The insurance shall include coverage for the following:
 - a. Premises/Operation;
 - b. XCU coverage, where applicable;
 - c. Products/Completed Operations;
 - d. Contractual Liability:
 - e. Independent Contractors;
 - f. Personal Injury.
- iii) Workers Compensation and Employers' Liability Insurance Including coverage for sole proprietors, partners, and officers, regardless of requirement by Tennessee State Statute. Policy is to be specifically endorsed to include these individuals for coverage. Employers' Liability Coverage is \$1,000,000.00 per accident. Contractor/provider waives its right of subrogation against Shelby County for any and all workers' compensation claims
- iv) Business Automobile Liability Insurance \$1,000,000.00 each accident for property damage and bodily injury. Coverage is to be provided on all owned/leased autos, non-owned autos and hired autos. Shelby County Government, its elected officials, appointees and employees will be named as additional insured.
- c. CONSULTANT shall provide County with a current copy of the Certificate of Insurance at the time of contracting and shall maintain said insurance during the entire Contract period as well as provide renewal copies on each anniversary date. The certificate holder is to read:

Shelby County Government Purchasing Department 160 N. Main, Suite 900 Memphis, TN 38103

d. Upon termination or cancellation of any claims-made insurance currently in effect under this Contract, the CONSULTANT shall purchase replacement coverage and/or an extended reporting endorsement and furnish evidence of same to the County. e. Any coverage applicable to COUNTY will apply as primary and noncontributory regardless of any insurance or self-insurance maintained by the COUNTY.

30. NOTICE

Any notices required or permitted to be given under the provisions of this Contract shall be effective only if in writing and delivered either in person to the COUNTY's authorized agent or by First Class or U.S. Mail to the addresses set forth below, or to such other person or address as either party may designate in writing and deliver as herein provided:

COUNTY:

Shelby County Government

160 N. Main Suite 1100

Memphis, Tennessee 38103

Attn: Thomas E. Needham, Director

Shelby County Public Works

and

Shelby County Government Contract Administration

160 N. Main Street, Suite 950 Memphis, Tennessee 38103

CONSULTANT:

ACOT ASSOCIATES GROUP, LLC

5796 Shelby Oaks Drive, Suite 16A

Memphis, Tennessee 38134 Attn: Mr. Solomon Akinduro

31. DATA SECURITY

CONTRACTOR warrants to the COUNTY and State that it agrees to meet the spirit and intent of all compliance requirements relating to the content of data accessed. This includes but is not limited to Payment Card Industry (PCI) data, as defined by PCI Security Standard v3.1, Protected Health Information (PHI), as defined under the in Code of Federal Regulations, Title 45, Subtitle A, Subchapter C, Part 160, Subpart A, §160.103 (45 C.F.R. §160.103), and Personally Identifiable Information (PII), as defined in the National Institute of Standards and Technology Special Publication 800-122 sections 2.1 and 2.2, in electronic and/or paper format. CONTRACTOR will sign any documents that are reasonably necessary to keep the State and the COUNTY in compliance, including, but not limited to, Data Security - Vendor Acknowledgement agreement and Acceptable Use Policy, and to abide by SCG ITS security policies including, but not limited to, the SCG Network Security and Information Security policies.

CONTRACTOR shall apply all vendor-issued security updates for system

hardware and software components maintained by the CONTRACTOR within 30 days of issuance.

Upon notification by the COUNTY, the CONTRACTOR shall assure that all vulnerabilities specific to the systems maintained and identified by the COUNTY Approved Scanning Vendor (ASV), using the common vulnerability scoring system (CVSS), as not meeting compliance requirements, including but not limited to PCI Data Security Standards (DSS) and Health Insurance Portability and Accountability Act (HIPAA), are patched, updated, or otherwise modified to assure they meet said compliance requirements.

The Contractor shall promptly report to Information Technology Security Officer any breaches of Shelby County Government data and will implement immediate, appropriate corrective actions to contain and prevent recurrence.

- i) HIPAA -CONTRACTOR warrants to the COUNTY and State that it is familiar with the requirements of the Health Insurance Portability and Accountability Act of 1996 (HIPAA) and its accompanying regulations, and will comply with all applicable HIPAA requirements in the course of this Contract. CONTRACTOR warrants that it will cooperate with the COUNTY and State in the course of performance of the Contract so that all parties will be in compliance with HIPAA, including cooperation and coordination with COUNTY and State privacy officials and other compliance officers required by HIPAA and its regulations. CONTRACTOR will sign any documents that are reasonably necessary to keep the State and the COUNTY in compliance with HIPAA, including, but not limited to, business associate agreements.
- ii) PCI-DSS-CONTRACTOR warrants to the COUNTY that it is familiar with the requirements established by the Payment Card Industry Security Standards Council for PCI Data Security Standards (PCI-DSS) and will comply with all applicable PCI-DSS requirements in the course of this Contract. CONTRACTOR agrees to indemnify and hold the COUNTY, its officers, employees, and agents, harmless for, from and against any and all claims, causes of action, suits, judgments, assessments, costs (including reasonable attorneys' fees) and expenses arising out of or relating to any breach of COUNTY or COUNTY customer credit card or identity information due to the CONTRACTOR's actions.
- iii) Personally Identifiable Information (PII) -CONTRACTOR warrants to the COUNTY that it will protect any information about an individual maintained by an agency, including (1) any information that can be used to distinguish or trace an individual's identity, such as name, social security number, date and place of birth, mother's maiden name, or biometric records; and (2) any other information that is linked or linkable to an individual, such as medical, educational, financial, and employment information.

32. HUD SECTION 3 REQUIREMENTS

- a. The work to be performed under this contract is subject to the requirements of Section 3 of the Housing and Urban Development Act of 1968, as amended,12 U.S.C. 1701u (section 3). The purpose of Section 3 is to ensure that employment and other economic opportunities generated by HUD assistance or HUD-assisted projects covered by Section 3, shall, to the greatest extent feasible, be directed to low- and very low-income persons, particularly persons who are recipients of HUD assistance for housing.
- b. The parties to this contract agree to comply with HUD's regulations in 24 CFR Part 135, which implement Section 3. As evidenced by their execution of this contract, the parties to this contract certify that they are under no contractual or other impediment that would prevent them from complying with the Part 135 regulations.
- c. The contractor agrees to send to each labor organizations or representative of workers with which the contractor has a collective bargaining agreement or other understanding. If any, a notice advising the labor organization or workers' representative of the contractor's commitments under this Section 3 clause, and will post copies of the notice in conspicuous places at the work site where both employees and applicants for training and employment positions can see the notice. The notice shall describe the Section 3 preference, shall set forth minimum number and job titles subject to hire, availability of apprenticeship and training positions, the qualifications for each; and the name and location of the person(s) taking applications for each of the positions; and the anticipated date the work shall begin.
- d. The contractor agrees to include this Section 3 clause in every subcontract subject to compliance with regulations in 24 CFR parts 135, and agrees to take appropriate action, as provided in an applicable provision of the subcontract or in this Section 3 clause, upon a finding that the subcontractor is in violation of the regulations in 24 CFR part 135. The contractor will not subcontract with any subcontractor where the contractor has notice or knowledge that the subcontractor has been found in violation of the regulations in 24 CFR part 135.
- e. The contractor will certify that any vacant employment positions, including training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

training positions, that are filled (1) after the contractor is selected but before the contract is executed, and (2) with persons other than those to whom the regulations of 24 CFR part 135 require employment opportunities to be directed, were not filled to circumvent the contractor's obligations under 24 CFR part 135.

- f. Noncompliance with HUD's regulations in 24 CFR Part 135 may result in sanctions, termination of this contract for default, and debarment or suspension from future HUD assisted contracts.
- With respect to work performed in connection with Section 3 covered Indian housing assistance, Section 7(b) of the Indian Self-Determination and Education Assistance Act (25 U.S.C. 450e) also applies to the work to be performed under this contract. Section 7(b) requires that to the greatest extent feasible (i) preference and opportunities for training and employment shall be given to Indians, and (ii) preference in the award of contracts and subcontracts shall be given to Indian organizations and Indian-owned Economic Enterprises. Parties to this contract that are subject to the provisions of Section 3 and Section 7(b) agree to comply with Section 3 to the maximum extent feasible, but not in derogations of compliance with Section 7(b).

IN WITNESS WHEREOF, the parties hereto have set their signatures for the purposes contained herein, on the day and date first above written.

APPROVED AS TO FORM AND LEGALITY:

SHELBY COUNTY GOVERNMENT

Contract Administrator/

Assistant County Attorney

ACOT ASSOCIATES GROUP, LLC

TITLE: PRESIDENT

CORPORATE ACKNOWLEDGMENT

STATE OF TENNESSEE COUNTY OF SHELBY

Before me, the under aforesaid, personally appear acquainted or proved to me of acknowledged himself/herself Corporate action and/or Resources, the within he as such presources, by signing the	on the basis of satisfactors to be president or othe esolution to execute the named bargainor, a Lin_, executed the foregoing.	, with whom ory evidence, and r officer authorize ne preceding ins nited Liability Corp g instrument for the	I am personally who, upon oath d by appropriate strument of the poration, and that a purpose thereir
)	and official seal a 	t office this 1	州 day of
ON STATE SEE TO STATE OF SEE TO STATE OF STATE OF SEE TO STATE OF SEE TO	Notary Public My Commission Expi		
COUNTY			



Mark H. Luttrell, Jr., Mayor

Request for Qualifications Shelby County Government Purchasing Department

160 N. Main, Suite 900 Memphis, TN 38103

Issued: May 18, 2016

<u>Due: June 21, 2016 no later than 2:00 P.M. (Central Standard Time)</u>

RFQ #16-005-74
MAJOR DRAINAGE BASINS
HYDRAULIC MODEL

Shelby County Government, Tennessee, an Equal Opportunity, Affirmative Action Employer, seeks to retain the services of up to three engineering consulting firms to provide professional services to provide HEC-RAS models of the three major drainage Basins in Shelby County. This Model is one part of the Regional Resilience Plan approved by the HUD Resilience competition. One firm will be designated as the lead firm who will establish the standard methodology for the model and format of a final report. Qualified Section 3 Business Concerns are encouraged to apply for the project.

This notification and any future information regarding this RFQ is and will be located on the County's website at www.shelbycountytn.gov. At the top of the home page, click on the links "Department", "P" for the Purchasing Department and "Bids" to locate the name of the above-described Request For Qualifications. Based on an evaluation of responses to this RFQ, one or more firms/consultants will be selected and invited to participate in further discussions and negotiation of a contract for the requested services.

Exauser A

I. INTRODUCTION

Shelby County Government, Tennessee, an Equal Opportunity, Affirmative Action Employer, seeks to retain the services of up to three engineering consulting firms to provide professional services to provide HEC-RAS models of the three major drainage Basins in Shelby County. This Model is one part of the Regional Resilience Plan approved by the HUD Resilience competition. One firm will be designated as the lead firm who will establish the standard methodology for the model and format of a final report. Qualified Section 3 Business Concerns are encouraged to apply for the project.

Interested consultants should submit a Letter of Interest and Statement of Qualifications related to the services requested by the RFQ specifications. Based on an evaluation of responses to this RFQ, one or more firms/consultants will be selected and invited to participate in further discussions and negotiation of a contract for the requested services.

Please Note: As a part of doing business with Shelby County, each individual, company, or organization is required to obtain an "Equal Opportunity Compliance" certification number prior to submitting your response.

You can access the online applications to receive the numbers indicated above at www.shelbycountym.gov. To obtain a vendor number and an EOC number, please follow the instructions below:

Vendor Number (Purchasing Department)

At the top of the home page, click on the links "Department", "P" for the Purchasing Department and "Conducting Business with Shelby County". The "Vendor Registration" link is at the bottom of the drop down box. Please download the application instructions and read thoroughly prior to accessing the application. (Applications for a vendor number are accepted online only.)

Equal Opportunity Compliance (EOC) Number (EOC Administration Office)

At the top of the home page, click on the links "Department", "E" for the Equal Opportunity Compliance and "Contract Compliance Program". The "Contract Compliance Packet" link is in the middle of the page. Please print the packet and mail or fax the completed packet to the EOC office. The mailing address is 160 N. Main Street, Suite 200, Memphis, TN 38103. The fax number is 901-222-1101.

Note: Because of the length of time it takes to apply and receive an EOC number, vendors who apply prior to the RFO due date, bid will be accepted pending EOC approval of their application.

If you have any questions regarding the application, you may contact Purchasing at (901)222-250 or the EOC Administration at (901) 222-1100.

II. MINIMUM REQUIREMENTS

All proposers must:

- Possess a professional license to practice engineering in the State of Tennessee.
- Have at least 10 years of experience and staff expertise in design and construction administration of commercial facilities with emphasis on design of office building, office space efficiency, and energy efficiency.
- Adhere to all Title VI requirements and provide proof/documentation.
- Adhere to the requirements of certified Locally Owned Small Business (LOSB) participation. Project goal is 2006 participation.
- Adhere to HUD Section 3 requirements.
- Prime and LOSB contractors must apply and qualify for an Equal Opportunity Compliance (EOC) certification number through our EOC Administration prior to submitting response.
- Independent contractors (sole proprietors) must adhere to State of Tennessee Public Chapter No. 436, known as the "Tennessee Lawful Employment Act" (effective date of 1/1/2012). Proof and documentation of employment eligibility must be included with the proposal.
- Adhere to all insurance requirements and provide documentation. Insurance requirement subject to change.

Disclosure of Proposal Contents

All correspondence, proposals and questions concerning the RFQ are to be submitted to:

Tosha Davenport, Purchasing Specialist
Shelby County Government
160 N. Main St. Suite 900
Memphis, TN 38103
(901) 222-2250

III. General Information:

Resilience Proposal: One of first steps in the regional planning effort is the development of a HEC-RAS model of the Loosahatchie, Wolf, and Nonconnah drainage basins, including their major tributaries extending in adjoining counties and states (Tipton County, TN, Fayette County, TN, DeSoto County, MS). This model will be used to provide information on the effect a wetland or retainage basin upstream would have on the potential flooding in the lower portions of the drainage basin. This model will be invaluable in leveraging the development of future green space and wetlands with the long term effect of reducing flooding in the areas with the most vulnerable populations.

The model will also be used to provide an estimated water elevation with varying rain events, which will be a tool to assist in the prediction of cost from future flood events, including influence of a changing climate. By incorporating forecast of short duration, high intensity rainfall in a given area, the HEC-RAS model can be used as a tool to provide a map of the potential areas which are most subject to flooding prior to storm events. This will allow the county to recommend future projects that can serve to minimize the effect of severe storms and flood and maximize the ability to recover.

IV. Project Scope:

I. The engineering consultant will provide the following services:

A. Data Collection

The consultant will utilize available GIS data to delineate the drainage basins and slopes. The consultant will field survey the Channels at select locations. This data will be used in conjunction with FEMA data, and bridge data to develop channel cross sections. The Consultant will also collect calculated flood elevations from FEMA and available gauge data from the USGS gauges. The Consultant will review studies from the various agencies including; NRCS, TDEC, Army Corps of Engineers, United States Department of Agriculture Natural Resource Conservation Service, and other local and regional organizations.

B. Hydrology Inflow Determination

The consultant will calculate inflows from the sub-basins for the 100-year, 24-hour and 500-year, 24-hour theoretical storm events. This calculation can be a simple determination by applying the Rational or SCS method with general runoff curve numbers for different land uses. This information will be input into the developed HEC-RAS model as point source inflows.

C. Hydraulic Model

The Consultant will use the collected field survey data to create channel cross sections. The channel sections will then be combined with available LIDAR data for the overbank areas to produce the elevation model for the full width of the floodplain. The Team will incorporate the collected data and develop a HEC-RAS model.

D. Flood Mitigation and Water Quality Improvements

Once the hydraulic model is calibrated, the model will be used to evaluate options for flood mitigation and simulate their effects on flood elevations in support of the activities developed in the Regional Resilience Plan.

E. Coordination between consultants

The HEC-RAS model will be used by Shelby County and the Corps of Engineers as a tool to assist in future funding of potential projects. The methods used to develop the model must be coordinated. To this end, one firm will be selected as the lead firm. This firm will:

- Develop Standardized methodology for all firms to use in the preparation of the HEC-RAS Model
- Develop a standardized template for recording information and presenting the report
- 3. Conduct no more than two coordination sessions involving all firms

Respondents requesting additional information or clarification are to contact <u>Tosha.Davenport@shelbycountytn.gov</u> or at the address listed below. Questions should reference the section of the RFQ to which the question pertains and all contact information for the person submitting the questions. IN ORDER TO PREVENT AN UNFAIR ADVANTAGE TO ANY RESPONDENT, VERBAL QUESTIONS WILL NOT BE ANSWERED. <u>The deadline for submitting questions will be June 10, 2016 by 12:00 p.m. (CST).</u>

Individual vendor questions will be answered by e-mail as received before the cut-off date. All written questions submitted by the deadline indicated above will be answered and posted on the County's website at www.shelbycountytn.gov within forty eight (48) hours of the above cut-off date.

These guidelines for communication have been established to ensure a fair and equitable process for all respondents.

Please be aware that contact with any other personnel (other than the person clearly identified in this document) within Shelby County or its benefit administrators regarding this RFQ may disqualify your company from further consideration.

Firms may request consideration by submitting an original, five (5) copies and a letter of interest and statement of qualifications to Ms. Tosha Davenport, Purchasing Specialist, Purchasing Department, Shelby County Government, 160 North Main Street, Suite 900, Memphis, TN 38103.

Please ensure you include the RFQ name number and Title of proposal on the outside of the envelope. RFQ 16-005-74 "MAJOR DRAINAGE BASINS HYDRAULIC MODEL"

All qualifications must be received by Ms. Davenport's office on or before 2:00 PM (Central Standard Time) Tuesday June 21, 2016.

Submittals will be reviewed by a Consultant Review Committee (CRC) that will identify the most qualified proposers. At the discretion of the CRC, selected consultants may be interviewed to determine the most qualified firm or firms.

Proposals:

Interested consultants should submit a Letter of Interest and Statement of Qualifications including, but not limited to, the following:

- Firm name, address, and telephone number.
- Point of contact: name and telephone number.
- Past experience specific to performing watershed studies.
- Past experience specific to performing engineering design services for stream bank stabilization projects and detention basin design.
- Overview of consulting team including clear statements of expertise in work of this nature.
- Qualifications of staff and if applicable sub-consultants.
- Demonstrated ability to meet schedules without compromising sound engineering practices.
- Statement of level of certified Locally Owned Small Business (LOSB) participation (project goal is 20%) and approach for meeting the participation requirements.
- All consultants must possess a professional license to practice engineering in the State of Tennessee.
- Inclusion of a fee is not required. A cost proposal will be negotiated with the selected consultant.

Submittals will be reviewed by a Consultant Review Committee (CRC) that will identify the most qualified proposers. At the discretion of the CRC, selected consultants may be interviewed to determine the most qualified firm or firms.

Evaluation proceedings will be conducted within the established guidelines regarding equal employment opportunity and nondiscriminatory action based upon the grounds of race, color, sex and creed or national origin. Interested certified Disadvantaged Business Enterprise (DBE) firms as well as other minority-owned and women-owned firms are encouraged to respond to all advertisements.

Consultant understands and acknowledges that the SCDOC is a governmental entity subject to the laws of the State of Tennessee and that any reports, data, or other information supplied to the County is subject to being disclosed as a public record in accordance with the laws of the State of Tennessee. All proposals and other materials submitted become the property of Shelby County.

V. SUBMITTAL FORMAT/ EVALUATION CRITERIA

Submittals shall be organized in a manner requested in the RFQ. Submittals shall contain all pertinent information requested and will be evaluated based on adherence to the following:

1. General Requirements

- Cover letter
- Firm name, address, and telephone number
- Point of contact: name and telephone number
- Written statement of compliance with Title VI
- Completion of the Section 3 RFQ documents
- Proof of Licensure

2. Capacity to perform required services

- Areas of expertise addressed by the team members presented in submittal
- Organizational chart, including all team members

3. Qualifications

- · Company overview for all consulting firms participating as team members
- Resumes for proposed project manager and staff from each participating firm

4. Experience

Provide case study information documenting relevant experience from five (5) projects within the past ten years. Case studies shall list the following as a minimum:

- Project description
- Client and client's point of contact information
- Firm's role in project
- Design fee, construction cost and change order amounts
- Project staff and their role

Inclusion of a fee is not required. A cost proposal will be negotiated with the selected consultant.

VI. INSURANCE REQUIREMENTS

The Provider will provide evidence of the following insurance coverage with limits no less than:

Commercial General Liability Insurance - \$1,000,000 limit per occurrence bodily injury and property damage/\$1,000,000 personal and advertising injury/\$2,000,000 General Aggregate/\$2,000,000 Products-Completed Operations Aggregate. Shelby County Government, its elected officials, appointees, employees and members of boards, agencies, and commissions shall be named as additional insureds. The insurance shall include coverage for the following:

- a. Premises/Operations
- b. Products/Completed Operations
- c. Contractual
- d. Independent Contractors
- e. Broad Form Property Damage
- f. Personal Injury and Advertising Liability
- Business Automobile Liability Insurance \$1,000,000 each accident for property damage and bodily injury. Coverage is to be provided on all:
 - a) Owned/Leased Autos
 - b) Non-owned Autos
 - c) Hired Autos
- Workers Compensation and Employers' Liability Insurance As required by Tennessee State
 Statute. Employers Liability limit is \$1,000,000 per accident. Contractor/provider waives its
 right of subrogation against Shelby County for any and all workers' compensation claims.
- Professional Liability Insurance Errors and Omissions Coverage in limits of no less than \$1,000,000 per claim/\$3,000,000 annual aggregate.

All policies will provide for sixty (60) days written notice to Shelby County of cancellation of coverage provided. Ten (10) day notice is applicable to non-payment of premium. If the insurer is not required by the policy terms and conditions to provide written notice of cancellation to Shelby County, the Provider/Provider will provide immediate notice to Shelby County and evidence of replacement coverage with no lapse.

If the Contractor maintains higher limits than the minimums shown above, the County requires and shall be entitled to coverage for the higher limits maintained by the Contractor. Any available insurance proceeds in excess of the specified minimum limits of insurance and coverage shall be available to the County as additional insureds.

Upon termination or cancellation of any claims-made insurance currently in effect under this Contract, the Provider shall purchase an extended reporting endorsement or replace coverage with the same retroactive date and furnish evidence of same to the County.

All insurance policies maintained by the Provider/Provider shall provide that insurance as applying to Shelby County shall be primary and non-contributing irrespective of such insurance or self-insurance as Shelby County may maintain in its own name and on its own behalf. Any insurance company of the Provider shall be authorized to do business in the State of Tennessee and shall carry a minimum rating assigned by A.M. Best & Company's Key Rating Guide of "A-" and a Financial Size Category of "X".

VII. NON-DISCRIMINATION

• Non-Discrimination and Title VI - The Contractor hereby agrees, warrants, and assures compliance with the provisions of Title VI and VII of the Civil Rights Act of 1964 and all other federal statutory laws which provide in whole or in part that no person shall be excluded from participation or be denied benefits of or be otherwise subjected to discrimination in the performance of this Contract or in the employment practices of the contractor on the grounds of handicap and/or disability, age, race, color, religion, sex, national origin, or any other classification protected by federal, Tennessee State Constitutional or statutory law. The Contractor shall upon request show proof of such nondiscrimination and shall post in conspicuous places available to all employees and applicants notices of non-discrimination. Any recipient entity shall be subject to the requirements of Title VI of the Civil Rights Act of 1964, 42 U.S.C. 2000d et seq., and regulations promulgated pursuant thereto. It shall develop a Title VI implementation plan with participation by protected beneficiaries as may be required by such law or regulations.

To the extent applicable, such plan shall include Title VI implementation plans subrecipients of federal funds through the entity. The Contractor shall produce the plan upon request of Shelby County Government. Failure to provide same shall constitute a material breach of contract.

VIII. SECTION 3 EMPLOYMENT OPPORTUNITIES

Section 3 -The Contractor hereby agrees, warrants, and assures compliance with the
provisions of Section 3 of the Housing and Urban Development Act of 1968 (12 U.S.C.
Sec. 1701u) as found at 24 CFR Part 135. The purpose of section 3 is to ensure that
employment and other economic opportunities generated by HUD assistance or HUDassisted projects covered by section 3, shall, to the greatest extent feasible, be directed to
low- and very low-income persons, particularly persons who are recipients of HUD
assistance for housing.

Section 3 Documents

(RFQs and RFPs)

Section 3

Forms, Reports, and Policy

This project is governed under Section 3 of the Housing and Urban Development Act of 1968 [12 U.S.C. 1701u and 24 CFR Part 1351], which provides preference to low-to very low-income residents of the local community (regardless of race or gender0, and the businesses that substantially employ these person, for new employment, training and contracting opportunities.

Required Section 3 Forms and Reports

Section 3 Opportunity Plan

A Section 3 Opportunity Plan must be completed by bidders or applicants seeking funding from the Shelby County Division of Planning and Development and the Department of Housing for a Section 3 covered project. The Section 3 Opportunity Plan must be submitted with the project bid or grant application.

Forms included in the Section 3 Opportunity Plan

- 1. Outreach Efforts to Section 3 Businesses
- 2. Section 3 Business Certification Form
- 3. Commitment to Contracting

A Section 3 Opportunity Plan is included.

Section 3 Summary Report

Project award recipients are required to complete and submit a Section 3 Summary Report each month throughout the life of the project. Information is cumulative and should run through the last day of the reporting month. Example: A report period of May 2015 will document required information from the start of the project through the last day of the May 2015.

A Section 3 Summary Report is included.

Section 3 Business Certification Form

Preferential contract consideration will be granted to Section 3 businesses. The Section 3 Business Certification From must be completed by businesses seeking Section 3 status. The Section 3 Business Certification Form must be completed by businesses listed as Section 3 in the Section 3 Opportunity Plan. The certification form must also be submitted with the Section 3 Summary Report when a contract is issued to a Section 3 business after the start of the project.

A Section 3 Business Certification Form is included.

Section 3 Opportunity Plan

Understanding Section 3

Section 3 is a Local Jobs and Contracting Initiative Utilizing Federal Housing Grant Funds.

What is Section 3?

Section 3 is a HUD requirement designed to ensure that the HUD funds invested in housing and community development activities provide employment opportunities for low income people. HUD's regulations state that "to the greatest extent feasible," businesses and employers working on select HUD-funded projects must make a good faith effort to train and employ low-to very low-income individuals in the area (called "Section 3 residents") and also to contract with business identified as Section 3.

In summary, the obligations of Section 3 are:

- 1. Provide training for Section 3 residents, and report on the outreach and training undertaken.
- 2. To the greatest extent feasible hire and train Section 3 residents, and report on employees and new hires.
- 3. To the greatest extent feasible contract with Section 3 businesses, and report on contracts and subcontracts.

Contracting Obligations: Applies to CDBG Projects Applies to all projects

Section 3 requires that award recipients fulfill the following obligations:

- Show commitment to meet HUD's contracting requirement (the "minimum numerical target for contracting") that Section 3 businesses receive at least 10% of the building trades contracts for the project, and at least 3% of the total amount for all non-building trade contracts.
- To the greatest extent feasible" contract with Section 3 business concerns identified as
 - o 51 percent or more owned by Section 3 residents; or
 - At least 30 percent of its full-time employees include persons that are currently Section 3 residents, or were Section 3 residents within 3 years of the dated of first hire; or

Provides evidence, as required, of a commitment to subcontract in excess of 25 percent (25%) of the dollar award of all subcontractors to businesses that meet one of the qualifications above.

Hiring Obligations: Applies to all CDBG Projects Applies to all Projects

Section 3 requires that award recipients fulfill the following obligations to the greatest extent feasible when new employees are hired:

- Meet HUD's hiring requirement (the "minimum numerical target for training and employment") that 30% of new hires be Section 3 individuals.
- > "To the greatest extent feasible" provide preference to hire area residents who are:
 - Low- to very low- income residents of the housing development or developments in which the HUD funds shall be expended; or
 - Low- to very low- income residents of other housing developments managed by the local Millington Housing Authority or the Memphis Housing Authority; or
 - o Participants in HUD Youthbuild Programs; or
 - All other residents (including Section 8 recipients) of Shelby County who meet the low-to very low-income guidelines for Section 3 preference.

Section 3 Opportunity Plan (TO BE COMPLETED FOR COMMUNITY DEVELOPMENT PROJECTS)

PURPOSE

The purpose of the Section 3 Opportunity Plan is to ensure that jobs and economic opportunities generated by the U. S. Department of Housing and Urban Development (HUD) financial assistance for housing and community development programs shall be directed to low- and very low- income persons to the greatest extent feasible, particularly those who are recipients of government assistance for housing and business concerns providing such opportunities.

BIDDER OR APPLICANT			
RFP# and PROJECT NAME	***************************************		** * ***
CONTACT NAME APPLICABLE)	TELEPHONE	EMAIL (IF	*****

Requirements

The submitter of this Section 3 Opportunity Plan hereby agrees to comply with all of the provisions of Section 3 as set forth in 24 CFR 135, which implements Section 3 requirements. The Section 3 Opportunity Plan must be submitted with the Request For Quotation (RFQ), Request For Proposal (RFP), contact response, or grant application to Shelby County's Division of Planning and Development/Department of Housing or the appropriate Division/Department issuing the applicable request.

If a contract is awarded, a Section 3 Summary Report identifying progress in meeting the goals established in this Plan must be submitted monthly for projects throughout the contract period. The Section 3 Summary Report shall be submitted no later than 10 days after the end of each calendar month of the contract (e.g. January 10th, February 10th, etc.). For any goal not met, the report shall identify other economic opportunities that the contract recipient has or intends to provide.

The failure of the contract recipient to comply with the approved Plan shall be considered an event of default under the contract agreement.

Commitment to Contracting Applies to all projects

Each applicant or bidder for a construction or labor-related contact must complete this Plan and submit all relevant information required herein. The following contracting requirements must be satisfied to the greatest extent feasible:

- At least ten percent (10%) of the total dollar amount of all applicable HUD-funded construction contracts shall be awarded to businesses identified as Section 3.
- At least three percent (3%) of the total dollar amount of all applicable HUD-funded nonconstruction contracts shall be awarded to businesses identified as Section 3.

The following documents must be completed and submitted with this Plan:

- Outreach Efforts to Section 3 Businesses
- Section 3 Business Certification Form
- Section 3 Commitment to Contracting

BUSINESS OR ORGANIZATION NAME

Compliance

Commitment to the Employment and Training Applies to all projects

Each bidder or applicant for a construction or labor-related contract must complete this Plan and submit all relevant information required herein. Bidders and applicants must satisfy the following hiring requirements to the greatest extent feasible:

Thirty percent (30%) of the aggregate number of <u>new</u> positions during a one year period shall be filled with Section 3 residents. Example: A construction contractor hires 10 new workers. Three of the new workers should qualify as local low-to very-low income persons.

The failure of the bidder or applicant to comply with the Section 3 Opportunity Plan shall t considered an event of default under the contract agreement. Acknowledged by						
PRESIDENT OR AUTHORIZED OFFICER (PLEAS	E PRINT)					
SIGNATURE	DATE					

Section 3 Opportunity Plan Outreach Efforts to Section 3 Businesses Applies to all projects

Do RF	Occumentation of efforts to engage Section 3 businesses must EFQs, RFPs, and grant applications.	be provided with responses to
Pro	roject Name	
Thi Div any	his form is to be completed by bidders or applicants seeking f ivision of Planning and Development/Department of Housing by other Shelby County Division/Department when Section 3 rganization	unding under a Shelby County Section 3 covered program (or applies).
~ .	• • • •	
The	ne following businesses identified as Section 3 were contacted railability to work on the above-listed project:	
	Contact	
	Telephone / Email	
	Date(s) Contacted	Ouote Provided (Y/N)
	Follow-up Action and Company Response	
2.	Company	
alguarana.	Telephone /Email	
	Date(s) Contacted Follow-up Action and Company Response	Ouote Provided (Y/N)
3.	Сотрапу	
	Contact Telephone /Email	
	Topicie (Dilai	
	Date(s) Contacted Follow-up Action and Company Response	Quote Provided (Y/N)
4.	Company	
	Contact	
	Telephone /Fmail	

Date(s) Contacted	Quote Provided (Y/N)
Follow-up Action and Company Response	
(Attach additional sheets if	necessary)

Section 3 Business Certification Form

Required if Section 3 businesses are included in the bid or application
Businesses seeking Section 3 status and preference in contract by DPD/Department of Housing must complete and submit a Section 3 Business Certification Form.

Address		
City	State	Zip
Federal Employer Ident	ification Number	Duns Number_
Type of Business		
Corporation	Partnership	Sole Proprietorship
☐ Joint Venture		
were Section 3 eligil business	ble residents within 3 years	e are currently Section 3 residents or
 Complete list 	of all current full-time emple	future as added confirmation of status
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ACOT

NONCONNAH DRAINAGE BASIN HYDRAULIC MODEL SCOPE OF WORK 01/31/2017

ACOT

Administrative

- A. Contract Preparation
- B. Prime\Sub Contracts Preparation
- C. Billing and distribution of payments

Project Duties

- 1. Project management and scheduling
- 2. Coordination of meetings with City, including coordination of attendance and presentation materials
- 3. Coordinate initial team project site review and survey scope preparation (to be submitted to the County in the project kick off meeting for approval or modification)
- 4. Attend calibration meeting and training session at Program Manager's (FA) office

5. Field Survey

- a. Obtain channel cross-sections just downstream of the downstream edge of bridge openings (approximately at the toe of the road embankment) for seven crossing structures not included in the original HEC-2 model Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. (Seven (7) bridge structures).
- b. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths (and shapes).
- c. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures.
- d. Obtain 61 intermediate channel sections at locations determined by ACOT/Parsons. Channel sections will extend 50-100' beyond the top of bank to assist in merging sections with County's LIDAR surface.
- e. Reduce and process the survey data into a CADD file, comma delineated points file which will be provided to ACOT/Parsons.
- f. The mapping will be presented in the Tennessee Lambert Grid System with the Vertical Datum being relative to NAVD88.



6. HEC-RAS Model

- a. Process surveyed channel sections and replace old channel geometry in HEC-RAS model (approx. 61 cross sections and +7 at bridges).
- b. Enter/edit bridge information for 35 bridges, using bridge data sheets created.
- C. Revise channel bank stations, Manning's, expansion and contraction coefficients, and ineffective and blocked flow areas (approx. 200 cross-sections).
- 7. Project management of Model Calibration
 - 1. Review of status of data entry
 - 2. Review of project information
- 8. Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies.
- 9. Coordination with team the using of the HEC-RAS model from the County and the Army Corps of Engineers.

10. Final Deliverables

- 1. Prepare and provide executive report summarizing efforts and resultants
- 2. Prepare and provide final Calibrated HEC RAS models
- 3. Prepare and provide digital and hard copies of the resultant flood mapping for the 100-Yr, 500 -Yr and historic 2011 flooding event within Shelby County based on the final Calibration models

* 3.of 9

EXHIBIT B SHELBY COUNTY NONCONNAH CREEK HEC-RAS DRAINAGE STUDY MAN-HOUR ESTIMATE

8 B 1	PROJECT ADMINISTRATION Meetings/Coordination Project management Coordination with Parsons Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model – Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections will extend 50-100' beyond the top	Project Principal 8	Project Manager 16 40 20 8 24 4 24 24 24 26 27 28 28 29 30 30 30 30 30 30 30 30 30 30 30 30 30	12 4 12 8	Engineer	Senior Technician	Office Admin	Total • 24 96 40 23 16 28
1 2 3 4 4 6 7 7 8 B B 1 1 2 2 4 4 6 6 7 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8	Meetings/Coordination Project management Coordination with Parsons Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4 4	40 20 8 24 4	12	16	12	20	96 40 23 16 28
1 2 3 4 4 6 7 7 8 B B 1 1 2 2 4 4 6 6 7 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8 8 7 8	Meetings/Coordination Project management Coordination with Parsons Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4 4	40 20 8 24 4	12	16	12	20	96 40 23 16 28
2 3 4 6 7 8 8 8 1	Project management Coordination with Parsons Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Altend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4 4	40 20 8 24 4	12	16	12	20	96 40 23 16 28
3 4 6 7 8 8 8 1	Coordination with Parsons Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4	20 8 24 4	12	16	12	20	40 23 16 28
4 6 7 8 B 1	Coordination with Program Manager Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model – Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4	24	12	16	12		23 16 28
8 B 1	Provide and maintain anticipated project schedule including updates Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies Altend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4	24	12	16	12	15	16 28
8 B 1	Obtain bridge plans from City of Memphis, Collierville, Germantown, Shelby County, and TDOT and distribute to team where needed in improvement options studies. Attend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right tooking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4	8	12	16	12		28 12
3 1	Shelby County, and TDOT and distribute to team where needed in improvement options studies Altend Kickoff Meetings FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right tooking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined		8	12	16	12		12
2 3 4	FIELD SURVEYS Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right tooking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined	4	8	12	16	12	23 8 4 8 4 2 2 2 2 2	
3	Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined		TO THE STATE OF TH		16	12		
3	Obtain bridge opening sections approximately fifty (50) downstream of the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined		TO THE STATE OF TH		16	12		32
3 4	the downstream edge for seven crossing structures not included in the original HEC-2 model — Farrisview Boulevard, Thousand Oaks Boulevard, SR 385 between Kirby and Riverdale, Riverdale Road, SR 395 at Quince Road, SR 385 between Winchester and Hacks Cross, and SR 385 Forest-Hill Irene and South Houston Levee. Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined		TO THE STATE OF TH		16	12		32
3 1	Prepare bridge geometry surveys to include at a minimum the low chord elevation, top of road profile (a minimum of points at the bridge ends and center of bridge at top of curb or roadway pavement if no curb), abutment and pier locations, and pier widths. Produce photographs and sketches of each cross-section (always left to right tooking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined		2	8	16	-		l
4	right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined					16		42
4	right looking downstream) and of the bridge structures. Obtain 61 intermediate channel sections at locations determined			1				
4	Obtain 61 intermediate channel sections at locations determined	1	8	16	ŀ	1	1	24
4	byACOT/Parsons, Channel sections will extend 50-100' beyond the ton		-					
-				1	l	- 1	1	1
-	of bank to assist in merging sections with County's LIDAR surface.			Ī		l	i i	1
5			_		l			[
5	Reduce and process the survey data into a CARR St.		2	8		30		40
	Reduce and process the survey data into a CADD file, comma					i i	T]
	delineated points file which will be provided to ACOT/Parsons.		2	8		16	1	26
6	The mapping will be presented in the Tennessee Lambert Grid System							
<u> </u>	with the Vertical Datum being relative to NAVD88.	8	8			i		16
							· · · · · · · · · · · · · · · · · · ·	
C. S	STRUCTURES DATA	12.0	1,11			CONTRACTOR OF THE	Programme and	——
1 (Create new bridge input data sheet plans (28 Structures)			12		58		70
2 (Create bridge input data from survey data (7 Structures)			6		18		24
		······································		<u> </u>				
D. E	DIT HEC-RAS MODEL	74.4						
ir	Process surveyed channel sections and replace old channel geometry n HEC-RAS model (~61 XS's +7 at bridges)		4	40		144		188
c	Inter/edit bridge information for 35 bridges, using bridge data sheets preated. Revise channel bank stations, Manning's, expansion and contraction		4 2	40 20	144			188
	cefficients, and meffective and blocked flow areas			44	A Jaka isabia sig		dalamata jili <mark>o</mark> d	102
	inter initial flow data provided by FA and set up boundary conditions					4		4
	IODEL CALIBRATION		1000		N. 114703	er er erhele ()	44.5	
	roject Management of Model Calibration		16					16
2 A	Attend meeting for calibration process (Approx. 1 days)			8				8
				-				
. M	IAPPING			10.00	1 1 1 1 1		******	
1 R yr	eview digital and hard copies of the flood mapping for the 100-yr, 500- r, and historic 2011 flooding event based on the final calibrated model			12	24			36
. P	REPARATION FOR FINAL DELIVERABLES			1100		<u> </u>	4 - 4 - 4 - 4 - 4 - 4 - 4	
1	oversheet and table of contents preparation			2		1 1	2	4
lo.	rovide digital and hard copies of the resultant flood mapping for 100		1					
Y	r, and 500 Yr within Sheiby County based on final calibrated models			10	ا ہ	ĺ		
3 Pr	rovide and prepare executive report summary of efforts and results		8	16	6	<u> </u>		30
	strate and prepare executive report summary of enons and results	88	16					24
		<u>1</u>						
 _ -								
	OTALS THIS SHEET	36	192	224	190	378	93	1113

EXHIBIT B SHELBY COUNTY NONCONNAH CREEK HEC-RAS DRAINAGE STUDY MAN-HOUR ESTIMATE

CLASSIFICATION			TOTAL
	RATE	MAN-HOURS	 COST
Project Principal	\$168.00	36	\$ 6,048.00
Project Manager	\$158.00	192	\$ 30,336.00
Senior Engineer	\$138.50	224	\$ 31,024.00
Engineer	\$115.00	190	\$ 21,850.00
Senior Technician	\$110.00	378	\$ 41,580.00
Office Admin	\$60.00	93	\$ 5,580.00
Field Surveying	\$202.46	61	\$ 12,350.06

SUBTOTAL LABOR COSTS 1,174.00 \$ 148,768.06

DIRECT COSTS \$1,928.00

PROPOSED COMPENSATION \$ 150,696.06

DIRECT COSTS

 Meetings
 4 trips @ 50 miles
 \$108.00

 Field Trips
 \$450.00

 Printing
 \$1,370.00

TOTAL \$1,928.00

PARSONS

NONCONNAH DRAINAGE BASIN HYDRAULIC MODEL SCOPE OF WORK 1/31/17

1. Data Collection

We will obtain any available drainage studies, hydrologic and/or hydraulic models, mapping, gauge data, survey data and other applicable data from the US Army Corps of Engineers, Shelby County, and the City of Memphis.

Field Surveys

Parsons will assist with determining location of new stream cross-sections to be surveyed (61), and will prepare maps identifying locations to provide to ACOT.

HEC-RAS

- 1. Research, compilation, assimilation of existing models.
- 2. Create Base HEC-RAS model from Corps restudy HEC-2 model.
 - a. Import HEC-2 file (H2NC97.DAT) into new HEC-RAS model. Check/correct any errors that inhibit import to Geo-RAS, obvious busts in data (approx. 200 cross sections).
 - b. Merge with cross sections from "Nonconnah Creek Final.prj" HEC-RAS model by Taylor Engineering (48 cross sections) into upstream end of model, adjust reach length at connects, convert river stationing to be consistent with FIS model, check data.

3. Create Geo-RAS model in ArcMap.

- a. Set up new file. Locate, process, create all base layers (LIDAR provided by client, digital FIRM, aerials, land use maps, etc.).
- b. Import HEC-RAS model. Geo-locate stream reach, adjust cross section locations (approx. 200 cross sections) to match at FIRM sections (33, A to AG)/mapping at bridges (approx. 35), adjusting reach lengths where necessary.
- c. Reorient each cross section overbanks (approx. 200) to be perpendicular to flow.
- d. Create cut lines and edit (approx. 200 cross sections).

- e. Create flow paths in overbanks, create bridge centerlines.
- f. Edit Manning's n (based on aerial, land use, photos of channel), create blocked obstructions. (approx. 200 cross sections).
- g. QC model input.
- h. Prepare GIS import file, Export to HEC-RAS for further editing.
- 4. Edit HEC-RAS model.
 - a. QC ACOT structure data, channel data, model input

5. Model Calibration

- b. Attend meeting for calibration process.
- c. Coordinate with FA to determine flow input locations in HMS
- d. Enter initial flow data provided by FA and set up boundary conditions; this may require sensitivity analysis.
- e. Run desired storms (100-yr, 500-yr, 2011), with flows provided by FA. Copy/interpolate cross sections as needed and fine tune for stability and errors.
- f. Calibrate HEC-RAS model to 2011 storm. Includes exporting results into GEO-RAS to compare with 2011 storm shape files provided by client, aerials, LIDAR; calibration of parameters in HEC-RAS and if necessary, calibration of HEC-HMS model.
- g. QA/QC final model.

6. Mapping

- a. Prepare digital and hard copies of the flood mapping for the 100-yr, 500-yr, and historic 2011 flooding event based on the final calibrated model.
- b. Summarize methods and calibration for brief project report.

EXHIBIT B SHELBY COUNTY NONCONNAH CREEK HEC-RAS STUDY MAN-HOUR ESTIMATE

	PARSONS		Man-Hours					
		Project Manager	Senior Engineer	Engineer	Senior Technician	Office Admin	Total	
Α	PROJECT ADMINISTRATION						 	1
1	Meetings/Conference calls/Coordination	16	16				32	1
2	Project management	24	 'Ŭ	 		31	55	1
3	Coordination with ACOT	30				30	60	1
4	Attend kickoff meeting	4	12				16	i
		1					1	1
В	FIELD SURVEYS	1				***************************************	1	1
1	Determine location of new stream cross-sections to be surveyed (61); Prepare maps identifying locations to provide to surveyor	8	12		24		44	
С	STRUCTURE DATA						 	1
1	Develop bridge data sheet template for input and QC		8				1 8	İ
	Develop bridge data sheet template for hiput and QC	-	Ů.				 	ł
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	LIVODALI I O MODEL ODEATAN							
<u>D</u>	HYDRAULIC MODEL CREATION	<u> </u>					<u> </u>	ļ
	Research, compilation, assimilation of existing models	ļ	16				16	l
2	Create Base HEC-RAS Model from Corps Restudy HEC-2 Model:				1			ĺ
2a	Import HEC-2 file (H2NC97.DAT) into new HEC-RAS model. Check/correct any errors that inhibit import to Geo-RAS, obvious busts in data (~200 XS's)		24				24	
	Merge with XS's from "Nonconnah_Creek_Final.prj" HEC-RAS model by Taylor Engr (48 XS's) into upstream end of model, adjust reach length at							
	connects, convert river stationing to be consistent with FIS model, check data		24				24	
3	Create Geo-RAS model in ArcMap							
3а	Set up new file. Locate, process, create all base layers (LIDAR provided by client, digital FIRM, aerials, land use maps, etc.).		24				24	
3b	Import HEC-RAS model. Geolocate stream reach, adjust XS locations (~200 XS's) to match at FIRM sections (33, A to AG)/mapping at bridges (~35), adjusting reach lengths where necessary.		24	80			104	
30	Reonent each XS's overbanks (~200) to be perpendicular to flow.			8			8	wakana kabaw
	Create cutlines and edit (~200 XS's)				80		80	
	Create flowpaths in overbanks, create bridge CL's		4	16			20	
3.f	Edit Manning's n (based on aerial, land use, photos of channel), create blocked obstructions. (~200 XS's)		· · ·		54		54	
	QC model input		40				40	
	Prepare GIS import file, Export to HEC-RAS for further editing		2				2	
4	Edit HEC-RAS Model							
	QC structure data, channel data, model input by ACOT		40	90			130	
F	MODEL CALIBRATION							
	Attend meeting for calibration process		12				12	
2	Run desired storms (100-yr, 500-yr, 2011), with flows provided by FA.							
	Copy/interpolate XS's as needed and fine tune for stability, errors Calibrate HEC-RAS model to 2011 storm. Includes exporting results into		40				40	
3	GEO-RAS inducer to 2011 storm. Includes exporting results into GEO-RAS to compare with 2011 storm shape files provided by client, aerials, LIDAR; calibration of parameters in HEC-RAS and if necessary, calibration of HEC-HMS model.		80	***************************************			80	
	QA/QC final model		16				16	
G	MAPPING							
1	Prepare digital and hard copies of the flood mapping for the 100-yr, 500- yr, and historic 2011 flooding event based on the final calibrated model	4		24	40		68	
	TOTALS	86	394	218	198	61	957	
	IVIALO	00	354	۷۱۵	190	01	70/	

EXHIBIT C CITY OF MEMPHIS

MILLBRANCH CULVERT REPAIR ADDITIONAL WORK FEE ESTIMATE

	CLASSIFICATION		N-HOUR RATE	MAN-HOURS		TOTAL COST	
	Project Manager	\$	225.00	86	\$	19,350.00	
	Senior Engineer	\$	140.00	394	\$	55,160.00	
	Engineer	\$	110.00	218	\$	23,980.00	
	Senior Technician Office Admin	\$ \$	110.00 95.00	198 61	\$ \$,	
	SUBTOTAL LABOR	COST	rs	957.00			\$ 126,065.00
	DIRECT COSTS						\$1,035.00
	PROPOSED COMP	ENSAT	TION				\$ 127,100.00
	DIRECT COSTS Mileage					400.40	
	Meetings Field Trips		@ 15 miles @ 15 miles			\$32.40 \$32.40	
elakus aran aran aran aran aran aran aran ara	Travel Airfare Hotel Rental Car/Fuel	·	\$240.00 \$140.00 \$50.00 \$40.00	1 3 3	\$ \$ \$	240.00 420.00 150.00	ina kalaman andalaka kalamin kalamin kalamin
	(assumed 2 trips for	Parsor	ns, STL to N	Memphis)			
	Printing					\$120.20	

\$1,035.00

TOTAL



Rock Solid Service at the Heart of Your Project

5796 Shelby Oaks Drive Suite 16A Memphis, TN 38134

Tel: (901) 266-1653 Fax: (901) 373-8222 www.acotassociates.com

January 31, 2017

Mr. Thomas Needham, P.E. **Public Works Director** Vasco A. Smith, Jr. Administration Building 160 North Main Street, Suite 1100 Memphis, TN 38103

Re: Man-Hour and Fee Estimate for Hydraulic Model Nonconnah Creek Basin

Dear Mr. Needham:

Pursuant to your letter dated October 25, 2016 and clarification of scope during the kickoff meeting of January 11, 2017 regarding the above referenced project and scope of work. We are presenting herewith our complete detailed scope of work, man-hour and fee estimate proposal for your review and consideration. The summary of our team fee is as follows:

1. ACOT (including survey) \$150,696.06 \$127,100.00 2. Parsons

\$277,696.00 Total

On behalf of the ACOT team, we truly appreciate the opportunity to working with you on this important project. If there are any questions or additional information is needed please contact me directly at 901-490-7055.

Sincerely,

ACOT Associates Group, LLC

Solomon Akinduro, Ph.D.

President

Enclosure

EXHIBIT G1 of 9