
PROFESSIONAL SERVICES AGREEMENT

(Professional Engineering Services)

1. PARTIES

- 1.1 Parties. The Parties to this Professional Services Agreement ("Agreement") are **Cobb Fendley & Associates, Inc.** ("Engineer"), and **Harris County** ("County"), on behalf of its Harris County Engineering Department ("HCED"). County and Engineer each may also be referred to individually herein as a "Party," or collectively as the "Parties."

2. PURPOSE

- 2.1 Project Description. County intends to provide Peek Road Segment 3 from north of Stockdick School Road to north of Beckendorff Road located in Harris County Precinct 3 ("Project"). This Project is also identified as UPIN 22103N301030006.
- 2.2 Summary of Scope of Work. In addition to any applicable attachments to this Agreement describing the Scope of Work, County desires that Engineer provide Professional Engineering Services in the study phase, design phase and bid phase of the Project, as further described in Exhibit A attached.
- 2.3 Professional Engineering Services. The professional services to be performed under this Agreement are within the scope of professional engineering, as defined by state law, and will be provided in connection with the professional employment or practice of a person who is licensed or registered as a professional engineer. The professional engineering services shall be performed in accordance with Tex. Occ. Code Ann. §§ 1001.001, et. seq, as amended.
- 2.4 Professional Services Procurement Act. The work to be performed under this Agreement cannot be purchased on the basis of competitive bids since it is encompassed within Texas Government Code §2254.002(2).

3. ENGINEER'S REPRESENTATIONS

- 3.1 Applicable Expertise. Engineer and the person executing this Agreement on behalf of Engineer certify and represent that Engineer (including Engineer's agents, employees, volunteers, and subcontractors, as applicable) possesses the skills, qualifications, expertise, experience, education, knowledge, ability, and financial resources to perform all services and/or deliverables contemplated in this Agreement without significant disruption of those deliverables.
- 3.2 Permits and Licensing. Engineer represents that Engineer (including Engineer's agents, employees, volunteers, and subcontractors, as applicable) possesses all special certifications, licenses, inspections and permits required by law to carry out the Scope of Work contemplated in this Agreement. Engineer's agents, employees, volunteers, and subcontractors, as applicable, shall maintain appropriate accreditation and licensing, as required, through the State of Texas or other applicable licensing entities. Prior to the performance of any services under this Agreement, Engineer shall, upon written (including electronic) request, provide proof of valid licensure to HCED (including a listing of all licenses and expiration dates).
- 3.3 Authorized to Conduct Business. Engineer represents that Engineer is authorized to conduct the business and carry out the Scope of Work contemplated in this Agreement. Prior to starting performance under this Agreement, Engineer shall, upon written (including electronic) request, provide proof to HCED of the authority to do business in this state or at the location specified in this Agreement.
- 3.4 Ability to Perform. HCED will award contracts only to the most highly qualified available responsible provider/contractor possessing the ability to perform successfully under the terms, conditions, and budget of a proposed procurement. Consideration will be given to such matters as provider integrity, compliance with public policy, record of past performance, and financial and technical resources. Engineer represents

that Engineer has the administrative, managerial, and financial capability to ensure proper planning, management and completion of the Scope of Work described in this Agreement and further has the administrative capacity and capabilities to carry out all duties and responsibilities under this Agreement.

- 3.5 Conflict of Interest Certification. Pursuant to Chapter 176 of the Texas Local Government Code, Engineer certifies that Engineer has completed any required conflict of interest disclosures or questionnaires (see www.ethics.state.tx.us). If this certification is materially incomplete or inaccurate, Engineer acknowledges that County shall have the right to terminate this Agreement without prior notice.
- 3.6 Certificate of Interested Parties Form 1295. Engineer certifies that it has accurately completed and submitted a notarized Certificate of Interested Parties Form 1295 ("Form 1295") in accordance with Texas Government Code §2252.908 and the rules adopted thereunder. Engineer acknowledges that it is responsible for making any and all necessary updates and/or corrections to the applicable Form 1295 during the term of this Agreement. Engineer must either (1) mail the completed Form 1295 to the Harris County Engineering Department at 1001 Preston, 7th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit the form by email to HCEDAdminSvc@hcpid.org.
- 3.7 Disbursements to Persons with Outstanding Debt Prohibited. Engineer certifies, by execution of this Agreement, that neither Engineer nor any of Engineer's principals owe any debts as defined in Local Government Code Section 154.045 (including delinquent property taxes). Engineer understands that certain disbursements are prohibited and that County may apply any funds due to Engineer under this Agreement to any outstanding balance of certain debts pursuant to Section 154.045. If this certification is inaccurate, County may also terminate this Agreement. In addition, Engineer hereby assigns any payments under this Agreement to the Harris County Tax Assessor-Collector for the payment of any current or future delinquent taxes.
- 3.8 Internet Access. Engineer shall maintain appropriate internet access, which will enable Engineer to access any secure online invoicing, reporting, or other web-based system designed for more efficient communication with HCED. As requested, Engineer shall submit required reports, invoices and related documents through an applicable secure internet site in a manner required to protect any confidential information submitted. Engineer shall review all instruction materials and/or attend all HCED provided training that is necessary for Engineer to properly utilize applicable web-based information systems.

4. SPECIFIC SCOPE OF WORK/SERVICES AND/OR DELIVERABLES

- 4.1 Specific work, products, services, licenses and/or deliverables. Engineer shall provide the work, products, services, licenses and/or deliverables required to be provided by Engineer and as set out in this Agreement and in Attachment A and all other referenced attachments incorporated in this Agreement (altogether referred to as the Scope of Work). The provisions in this Agreement labeled 'Scope of Services' or 'Scope of Work' shall take precedence over anything conflicting in any attached Engineer proposal or correspondence. Engineer shall submit any and all project-related documents and invoices through the cloud-based project management software utilized by HCED for planning and management of all projects using real-time project data.
- 4.2 Written Authorization. From time to time during the course of this Agreement, HCED may deliver to Engineer written (including electronic) authorization (sometimes referred to as a notice-to-proceed, task-order, work-order or job-order) for providing certain work, products, services, licenses and/or deliverables contemplated in this Agreement, which Engineer shall then perform in accordance with this Agreement. Engineer shall not begin or proceed to the next design phase of the Scope of Work until Engineer receives from HCED a written (including electronic) authorization to proceed. County shall have no obligation to pay for and Engineer shall have no obligation to provide any work, services, products, or deliverables not rendered in accordance with a prior written authorization as described by this Section. Engineer shall complete the services called for by the calendar days and by the deadlines specified in this Agreement, including exhibits and written authorizations.

5. ADDITIONAL AND SPECIAL REQUIREMENTS

- 5.1 Cooperation with Other Service Providers. County may engage the services of other service providers for work related to the work, products, services, licenses and/or deliverables in this Agreement. Engineer shall reasonably cooperate with such other service providers and will not commit or permit any act that may interfere with the performance of work by any other service provider.
- 5.2 Non-Assignability. Unless otherwise authorized in this Agreement, neither party shall assign, in whole or in part, any duty or obligation of performance under this Agreement without the express written permission of the other party, except that the express written permission of HCED shall be considered the permission of County. Such written permission will not be unreasonably withheld, unreasonably conditioned, or unreasonably delayed. However, with notice to HCED, Engineer may assign this Agreement to any affiliate of Engineer that controls, is controlled by, has resulted from a merger with, or is under common control with, Engineer if the assignee is at least as capable and qualified to provide the deliverables contemplated in this Agreement. This provision is not intended to restrict any assignment that is required by Section 9.406 of the Texas Business and Commerce Code.
- 5.3 Independent Contractor/Parties. County expects Engineer to meet the high standards set forth in this Agreement and looks to Engineer for results only. Unless otherwise required by law or regulation, County shall not direct the methods used to obtain those results, and Engineer shall perform the services as an independent contractor under the sole supervision, management, direction, and control of Engineer. As an independent contractor, Engineer will accept directions pertaining to the goals to be attained and the results to be achieved, as applicable, pursuant to this Agreement, but Engineer shall be solely responsible for the manner in which Engineer will perform the services under this Agreement. Any methods that might be discussed in any training sessions given by HCED are not mandatory unless specifically required in writing in this Agreement or by law. Engineer is not obligated to maintain any set, regular hours, nor to perform any set number of hours of service in fulfilling the obligations under this Agreement, unless otherwise specifically set out in this Agreement. This Agreement is not intended to create a joint enterprise, joint venture, business partnership, agency, franchise, or employment relationship, under Texas law. The personnel and staff of Engineer are independent contractors or employees of Engineer and shall not for any purposes be considered employees or agents of County. Engineer assumes full responsibility for the actions of any employees and agents while performing any services incident to this Agreement, and Engineer shall remain solely responsible for the supervision, daily direction, control and payment, if any, of salaries (including withholding of income and social security taxes), workers' compensation or disability benefits and like requirements and obligations.
- 5.4 Employee Retention. Engineer agrees to maintain the organizational and administrative capacity and capabilities to carry out all duties and responsibilities under this Agreement. The personnel Engineer assigns to perform the duties and responsibilities under this Agreement will be properly trained and qualified for the functions they are to perform. If specific qualifications are set forth in job descriptions required by the funding entity and/or in this Agreement, unless a written waiver is granted, Engineer shall only assign personnel with the required qualifications to fulfill those functions. Notwithstanding transfer or turnover of personnel, Engineer remains obligated to perform all duties and responsibilities under this Agreement without degradation and in accordance with the terms of this Agreement.
- 5.5 Significant Organizational Change Notification. Engineer shall notify County immediately and in advance of any significant organizational change that could affect Engineer's ability to carry out all duties and responsibilities under this Agreement, including any change of Engineer's name or identity, ownership or control, or payee identification number. Engineer shall also provide written notice to County within 10 working days of the change. Engineer shall provide ownership information to County immediately upon any such change.
- 5.6 Adverse Actions Reporting. Engineer shall inform HCED, in writing, of any concluded investigation of Engineer (including Engineer's agents, employees, volunteers, and subcontractors, as applicable, providing work, products, services, licenses and/or deliverables under this Agreement) that is conducted by or on behalf of a government entity or other licensing or accreditation entity (including any state board of

examiners) and whose outcome included public censure or other public sanction (or any pending investigations, administrative actions, or lawsuits, that relate to the work under this Agreement or that could adversely affect any performance or obligation in this Agreement). If at any time a license of Engineer's agents, employees, volunteers, and subcontractors, as applicable, providing work, products, services, licenses and/or deliverables under this Agreement required to be maintained to fulfill the Commitments in this Agreement is suspended, revoked or is determined to be out of compliance in Texas or any other state, this Agreement may be terminated immediately without prior notice, at the option of HCED, effective the date of the suspension, revocation or non-compliance. Engineer is not entitled to receive payment for services that were performed by Engineer while the required license was suspended or revoked. Engineer agrees to immediately inform HCED, in writing, of any adverse professional review action that is taken by a professional association or society and that is based on the professional competence or professional conduct of Engineer's agents, employees, volunteers, and subcontractors, as applicable, providing work, products, services, licenses and/or deliverables under this Agreement. County may, at its sole option, terminate this Agreement, upon notice of such adverse professional review action.

- 5.7 Subcontracts. Unless otherwise explicitly set out in this Agreement, Engineer shall not enter into any subcontract for the work, products, services, licenses and/or deliverables under this Agreement unless, prior to any written authorization to proceed with work done in part by the subcontractor, Engineer has provided to HCED the qualifications of the subcontractor to perform and meet the standards of this Agreement. Engineer shall comply with all Texas Administrative Code and Texas professional licensing agency requirements for choosing any professionally-licensed subcontractor.
- 5.8 Professional Standards. Where specifically-applicable standards are not explicitly set forth in this Agreement, as someone with expertise in the field, Engineer must provide the work, products, services, licenses and/or deliverables in accordance with generally-accepted standards applicable to Engineer's profession or industry. Engineer and County agree and acknowledge that County is entering into this Agreement in reliance on the Engineer's competence and qualifications, as those were presented to County by Engineer with respect to professional services. Engineer shall at all times utilize the skill and attention to fully, timely, and properly render professional services for the development of The Project to final completion as set out in, or reasonably inferred from, the Scope of Work/Services. This shall be done in a manner utilizing the degree of care ordinarily used by licensed professionals performing similar services on projects of a similar nature and scope within the State of Texas. A professional engineer assigned by Engineer to manage the Scope of Work who is licensed to practice in the State of Texas shall be present and represent Engineer at meetings of any official nature concerning The Project, including, but not limited to, scope meetings, status meetings, pre-bid meetings, any pre-construction meetings and any construction meetings (for construction-related projects) with County staff and/or contractors, unless otherwise set forth in the Scope of Work or approved in writing by HCED.
- 5.9 County Procedures. To effectively perform the services stated above, Engineer must become familiar with various procedures, policies, data collection systems, and other information of County. Engineer shall adhere to all applicable County engineering guidelines, standards, and design criteria (see <http://www.eng.hctx.net>). HCED will assist Engineer in obtaining the information. Unless otherwise required by law, Engineer agrees to keep any sensitive information confidential and not disclose it to outside parties without first obtaining County's written authorization.
- 5.10 Ownership of Work Product. For the purposes of assigning ownership of Engineer work product, the work performed will be deemed, to the extent authorized by law, to have been done on a works-made-for-hire basis, as that term is understood in copyright law. In the event and to the extent that such works are determined not to constitute works-made-for-hire, Engineer hereby irrevocably assigns and transfers to County all right, title, and interest in such works, including, but not limited to, copyrights. County shall be the absolute and unqualified owner of all completed or partially-completed Engineer work product prepared pursuant to this Professional Services Agreement and shall have the same force and effect as if prepared by County, including mylar reproducibles, drawings, preliminary layouts, electronic documents and drawings, record drawings, sketches, plans, cost estimates, inventions, designs, computer input/output information, computer applications, software, firmware, computations, and other documents (including the original electronic file format). Engineer may retain one set of reproducible copies for Engineer's sole use in

preparation of studies or reports for County only. Engineer is expressly prohibited from selling, licensing or donating such documents, or using such documents in the preparation of other work for any other client, without the prior express written permission of HCED. Engineer warrants that Engineer's work product will not in any way constitute an infringement or other violation of any copyright, trade secret, trademark, patent, invention, proprietary information, non-disclosure, or any other right of any third party, and Engineer will defend any claim, suit, or proceeding brought against County on the issue of infringement of any copyright by virtue of anything supplied by Engineer to HCED under this Agreement.

- 5.11 Trade Secrets. In connection with the work, products, services, licenses, Scope of Work, and/or deliverables provided under this Agreement, HCED may disclose to Engineer certain documents, data, and/or other information that is proprietary, confidential, or a trade secret (Trade Secrets). Engineer must not divulge or otherwise make unauthorized use of Trade Secrets or other protected information, procedures, or policies of HCED, any former employee, contractor, client, customer, or consultant, in the exercise of duties under this Agreement. Except to the extent authorized by a third party, neither Party shall copy, recreate, or use any proprietary information of a third party in the performance of services under this Agreement.
- 5.12 Nondisclosure and Confidentiality of Information. To the extent permitted by law, Engineer must keep confidential the contents of all discussions with local, state, and federal officials, as well as the contents of all local, state, and federal records and all other information obtained during performance under this Agreement. To fulfill Engineer's obligations under this Agreement, Engineer may be provided access to information, systems, operations, or procedures that are security sensitive or have been identified as confidential. This confidential information may include information from one of the government entity funding sources, such as a Texas or federal agency. Engineer and the person executing this Agreement on behalf of Engineer acknowledge that (a) access to this information (whether electronic, written or oral, formal or informal) is provided solely to Engineer for the purpose of discharging the duties in this Agreement, (b) premature or unauthorized disclosure of this information can irreparably harm the interests of County and may constitute a violation of state and/or federal law, and (c) the information may represent confidential or proprietary information, the release of which may be restricted or prohibited by law. Therefore, Engineer must (1) not access any information without express written authorization of HCED; (2) not copy, recreate, or use any information or document obtained in connection with this Agreement other than for the performance of this Agreement; (3) to the extent permitted by law, keep confidential the contents of all discussions with county, state, and federal officials, as well as the contents of all county, state, and federal records and all other information obtained during performance under this Agreement, unless authorized in writing by appropriate HCED officials; (4) not, except to the extent required by law, or necessary for the performance of this Agreement, release, disclose, reveal, communicate, impart or divulge any information or any summary or synopsis of the information in any manner or any form whatsoever to outside parties without the express written consent of HCED; (5) take all steps necessary to protect confidential information from disclosure to third parties and have a system in effect that must include a method to ensure the confidentiality of records and other information relating to any person according to applicable federal and state law, rules and regulations; (6) not reproduce, copy, or disseminate such confidential information, except to those who need to know such information and are obligated to maintain its confidentiality, including Engineer's partners, principals, representatives or employees as necessary to fulfill obligations under this Agreement; (7) notify HCED immediately of all requests for confidential information; and (8) immediately report to HCED all unauthorized disclosures or uses of confidential information.
- 5.13 Public Comment and Public Information Act. To the extent permitted by law, all contact with the news media, citizens of County, the State of Texas or other governmental agencies concerning The Project will be the responsibility of HCED. In the event Engineer is subject to the Texas Public Information Act, upon receipt of a written request for any information by Engineer developed in the performance of services under this Agreement, Engineer shall provide written notice to HCED of the request along with a copy of the request, and give HCED the opportunity to respond to the request prior to any release by Engineer. Unless required by law, under no circumstances shall Engineer release any material or information developed in the performance of services under this Agreement without the express prior written permission of HCED.

- 5.14 Applicable Laws. Engineer shall comply (and assure compliance by Engineer's agents, employees, volunteers, and subcontractors, as applicable, providing work, products, services, licenses and/or deliverables under this Agreement) with all applicable state, federal, and local laws, ordinances, regulations, executive orders, rules, directives, standards, guidelines, and instructions relating to the work to be performed. Engineer shall immediately bring to County's attention any conflicts between any applicable state, federal, and local laws, ordinances, regulations, executive orders, rules, directives, standards, guidelines, and instructions relating to the work to be performed. If laws or regulations change and affect any provision of this Agreement, this Agreement shall be deemed amended to conform to those changes in the laws or regulations on the date such laws or regulations become effective. If any such changes (that occur after the effective date of this Agreement and that Engineer should not reasonably have anticipated) require significant changes or additions to the Scope of Work that were not contemplated by the Parties, the Parties shall negotiate in good faith for the purpose of creating reasonable and equitable written modifications to this Agreement.
- 5.15 Records Retention and Management. Engineer shall maintain complete, accurate, and readily accessible records that are necessary to document and support the fulfillment of the obligations in this Agreement, including performance, design, underlying calculations, and financial records, as well as a copy of this Agreement. Engineer shall maintain and make available for inspection the Records for a minimum of four (4) years following either the end of the federal fiscal year in which any obligations were performed under this Agreement or the termination date of this Agreement, whichever is longer (or longer if necessary to resolve any litigation, claims, financial management review, or audit findings).
- 5.16 Authority of Harris County Engineer. The Harris County Engineer ("County Engineer") shall decide any and all questions that may arise as to the interpretation of this Agreement and all questions as to the acceptable fulfillment of this Agreement by Engineer. It is mutually agreed by both Parties that the County Engineer shall act as referee between the Parties in all questions arising under the terms of this Agreement and that the decisions of the County Engineer shall be final and binding alike on all Parties. If agreed to in writing by Engineer and the County Engineer (or designee), Engineer and the County Engineer may make adjustments to the Scope of Work that do not destroy the purposes of this Agreement. In making the aforementioned adjustments to the Scope of Work, Engineer and the County Engineer may adjust any corresponding firm fixed or maximum prices that neither increase the maximum amount of funds that Commissioners Court has authorized to be encumbered nor destroy the purposes of this Agreement. Any of the aforementioned adjustments to the Scope of Work and/or corresponding adjustments to any firm fixed or maximum prices (collectively, "Adjustments") may be reflected by a written Special Amendment to the Scope of Work in this Agreement ("Special Amendment"). Nothing contained in this section shall be construed to authorize the County Engineer to alter, vary, or amend any of the terms or provisions of this Agreement, other than the aforementioned Adjustments. The County Engineer is authorized on behalf of the County to make Adjustments (as defined herein) and execute a corresponding Special Amendment without further action by Commissioners Court. The Harris County Auditor ("County Auditor") is authorized, without further action by Commissioners Court, to certify additional funding for any Adjustments upon execution of a Special Amendment by the County Engineer.
- 5.17. Foreign Terrorists Organizations. In accordance with Tex. Gov't Code Ann. Chapter 2252 Subchapter F, Engineer warrants and represents that, at the time of execution of this Agreement and for the duration of the Term of this Agreement and any Renewal Terms, Engineer does not appear on the Texas State Comptroller's list of companies known to have contracts with or provide supplies or services to a foreign terrorist organization.
- 5.18 Anti-Boycott. In accordance with Tex. Gov't Code Ann. § 2270.002, Engineer warrants and represents that it does not boycott Israel and agrees that it will not boycott Israel during the term of this contract.

6. INSURANCE

- 6.1 Coverage and Limits. During the Term of this Agreement and any extensions thereto, Engineer at its sole cost and expense shall provide insurance of such type and with such terms and limits as may be reasonably associated with this Agreement. As a minimum, Engineer shall provide and maintain the following coverage and limits:

- (a) Workers Compensation, as required by the laws of Texas, and Employers' Liability, as well as All States, United States Longshore & Harbor Workers Compensation Act and other endorsements, if applicable to the Project, and in accordance with state law.

Employers' Liability

(i)	Each Accident	\$1,000,000
(ii)	Disease – Each Employee	\$1,000,000
(iii)	Policy Limit	\$1,000,000

- (b) Commercial General Liability, including but not limited to, the coverage indicated below. This policy will provide coverage for personal and bodily injury, including death, and for property damage, and include an endorsement for contractual liability. Coverage shall not exclude or limit the Products/Completed Operations, Contractual Liability, or Cross Liability. Where exposure exists, County may require coverage for watercraft, blasting, collapse, explosions, blowout, cratering, underground damage, pollution, and other coverage. *County shall be named Additional Insured on primary/non-contributory basis.*

(i)	Each Occurrence	\$1,000,000
(ii)	Personal and Advertising Injury	\$1,000,000
(iii)	Products/Completed Operations	\$1,000,000
(iv)	General Aggregate (per project)	\$1,000,000

- (c) Professional Liability/Errors and Omissions, in an amount not less than One Million Dollars (\$1,000,000) per claim and in the aggregate.
- (d) Umbrella/Excess Liability in an amount not less than One Million Dollars (\$1,000,000) per occurrence and in the aggregate. *County shall be named Additional Insured on primary/non-contributory basis.*
- (e) Automobile Liability insurance to include Engineer's liability for death, bodily injury, and property damage resulting from Engineer's activities covering use of owned, hired, and non-owned vehicles, with combined single limit of not less than One Million Dollars (\$1,000,000) for each accident. *County shall be named Additional Insured on primary/non-contributory basis.*

- (f) Any other coverage required of Engineer pursuant to statute.

6.2 Delivery of Policies. Immediately upon execution of this Agreement and before any Services are commenced by Engineer, Engineer shall provide County evidence of all of the above coverage on forms and with insurers acceptable to County. Engineer must maintain a valid Certificate of Insurance as described herein on file with County at all times during the term of this Agreement. Engineer must either (1) mail the Certificate of Insurance to the Harris County Engineering Department at 1001 Preston, 7th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit it by email to HCEdAdminSvc@hcpid.org.

6.2.1 Issuers of Policies. Coverage shall be issued by company(s) licensed by the Texas Department of Insurance to do business in Texas, unless said coverage is not available or economically feasible except through an excess or surplus lines company, in which case the company(s) should be registered to do business in Texas. Companies shall have an A.M. Best rating of at least A-VII.

6.2.2 Certificates of Insurance. Engineer shall provide unaltered Certificates of Insurance which evidence the required coverage and endorsements and satisfy the following requirements:

- (a) Be less than 12 months old;
- (b) Include all pertinent identification information for the Insurer, including the company name and address, policy number, NAIC number or AMB number, and an authorized signature;
- (c) Include the Project name and reference numbers and indicates the name and address of the Project Manager in the Certificate Holder Box; and

- (d) Be appropriately marked to accurately identify:
 - (i) All coverage and limits of the policy;
 - (ii) Effective and expiration dates;
 - (iii) Waivers of subrogation, endorsement of primary insurance and additional insured language, as described herein.

6.2.3 Certified Copies of Policies and Endorsements. Upon request, Engineer shall furnish certified copies of insurance policies and endorsements to County.

6.2.4 Renewal Certificates. Renewal certificates are due to County at least thirty (30) days prior to the expiration of the current policies.

6.2.5 Subcontractors. If any part of the Agreement is sublet, insurance shall be provided by or on behalf of any subcontractor, and shall be sufficient to cover their portion of the Agreement. Engineer shall furnish evidence of such insurance to County as well.

6.3 Additional Insured. Engineer shall include County and its respective officers, directors, agents, and employees as an Additional Insured on the Commercial General Liability, Automobile Liability, and Umbrella/Excess Liability insurance certificates. Engineer's coverage shall be primary insurance to any similar insurance maintained by County and must contain an endorsement stating such. Coverage to County as an Additional Insured on any of Engineer's insurance coverage shall not be subject to any deductible.

6.4 Deductibles. Engineer shall be responsible for and pay any claims or losses to the extent of any deductible amounts applicable under all such policies and waives any claim it may have for the same against County, its officers, directors, agents, or employees.

6.5 Claims-made Policies. All insurance policies written on a claims-made basis, including Professional Liability/Errors and Omissions, shall be maintained for a minimum of two (2) years following completion of all services under this Agreement ("Extended Reporting Period"). Engineer shall obtain or maintain full prior acts coverage at least to the effective date of this Agreement in the event of a carrier or policy change.

6.6 Waiver of Subrogation. Engineer waives any claim or right of subrogation to recover against County, its officers, directors, agents, and employees ("Waiver of Subrogation"). Each policy required under this Agreement must contain a Waiver of Subrogation endorsement.

6.7 Notice of Cancellation, Non-Renewal, or Material Change. Engineer shall provide County with thirty (30) days' minimum written notification in the event of cancellation, non-renewal, or material change to any or all of the required coverage.

6.8 Remedies for Noncompliance. Failure to comply with any part of this Section is a material breach of this Agreement. Engineer could immediately, and without notice, have all compensation withheld or suspended, be suspended from providing further Services, or be terminated from this Agreement for any lapse in coverage or material change in coverage which causes Engineer to be in noncompliance with the requirements of this Section.

7. FUNDING, COMPENSATION AND/OR BASIS FOR PAYMENT, METHOD, AND LIMITATIONS

7.1. Payments/Compensation. For and in consideration of the work, products, services, licenses or deliverables provided under this Agreement and during the term of this Agreement, subject to the limitations in this Agreement, County shall pay Engineer in accordance with the fee schedule and rates specified in this Agreement, including in the Attachments up to the total maximum amount specifically appropriated, encumbered, and then certified as available by the County Auditor.

7.2. Funding and Appropriations Limit. County shall have no obligation to pay for and Engineer shall have no obligation to provide any work, products, services, licenses and/or deliverables until sufficient funds are certified by the County Auditor. County intends to initially appropriate, encumber, and certify as available by the County Auditor the total maximum sum of **ONE MILLION NINETY-NINE THOUSAND SIX**

HUNDRED FIFTY DOLLARS AND 30/100 (\$1,099,650.30) to pay and discharge any and all liabilities that County may incur arising out of this Agreement. Any other provision notwithstanding, County shall never be liable to pay Engineer any greater amount under this Agreement than is specifically appropriated, encumbered, and then certified as available by the County Auditor.

- 7.3. Auditor's Certification of Funds. The issuance of a purchase order pursuant to this Agreement represents certification by the Harris County Auditor that funds, in the amount of the purchase order total, are available to satisfy all financial obligations of Harris County hereunder.
- 7.4. Funding Out/Non-Appropriation. It is further understood that pursuant to Local Government Code Chapter 111, when and if the work, products, services, licenses and/or deliverables and charges provided for herein are equal to or exceed the amounts certified available, Engineer is authorized to terminate some or all of Engineer's work, products, services, licenses and/or deliverables under this Agreement unless the County Auditor certifies that additional funds are available, in which event Engineer agrees to continue to provide the products, services and/or deliverables to the extent funds are available. When all the funds certified by the County Auditor, together with any additional funds thereafter certified, are expended, County will have no further liability, and the sole and exclusive remedy of Engineer will be to immediately terminate this Agreement unless the County Auditor certifies additional funds.
- 7.5. Billing Statements/Invoices. Unless otherwise indicated in this Agreement, no later than the 10th day after the end of each calendar month within the term of this Agreement, Engineer shall submit to HCED a billing statement or invoice for all unpaid products, services and/or deliverables, along with any applicable rates, including the applicable firm fixed price and any applicable percentage completed for specific tasks/deliverables as specified in this Agreement. The data in the billing statement or invoice must be in a format designated by HCED and the County Auditor, and must include any purchase order number. An authorized agent of Engineer must certify and swear under penalty of perjury that the work was performed, the work was properly authorized in writing by HCED, and all information contained in the statement or invoice is true and correct. All products, services and/or deliverables billed must be rendered during this Agreement term. Engineer shall submit to HCED billing statements or invoices limited to work done and products, services and/or deliverables provided pursuant to this Agreement, and Engineer shall not include in such billing statements or invoices any work, products, services, licenses and/or deliverables provided, required to be performed, or billed under or pursuant to any other agreements with County. HCED will review each statement or invoice and approve it with any modifications HCED deems appropriate after mutual consultation and agreement with Engineer. HCED will then forward the approved statement or invoice to the County Auditor for payment. County will pay Engineer the proper amounts due and owing under this Agreement within thirty (30) calendar days of receipt of the approved statement or invoice to extent allowed by law. Each statement or invoice must include a monthly inventory of work, products, services, licenses and/or deliverables provided during the billing period and any other details HCED reasonably requests for verification purposes, which might include:
- (a) The date(s) work, products, services, licenses and/or deliverables were provided;
 - (b) Meetings and lists of attendees, if applicable;
 - (c) Detailed description of the work, products, services, licenses and/or deliverables provided;
 - (d) The total amount billed, and any other details of the work, hours, or services as may be requested by the County Auditor;
 - (e) If applicable, the case number for which services were performed;
- 7.6. Overpayments. Within 10 calendar days after request by HCED, Engineer must reimburse to County all funds paid by County to Engineer that any funding entity or auditor determines have been improperly paid to, or expended by, Engineer. County may withhold, suspend, or reduce any and all payments due to Engineer until any overpayments are reimbursed.
- 7.7. Costs of Substitute Services. If Engineer fails to perform any of its obligations under the Agreement and County procures substitute services upon such terms as are appropriate, County shall deduct the reasonable costs for such services from any payments owed to Engineer under this or other agreements. Engineer must reimburse to County, within thirty (30) calendar days after request by County, any additional costs of such

substitute services beyond what has already been deducted by County. County may also withhold, suspend, or reduce payments due to Engineer until the costs of such substitute services are reimbursed to County by Engineer. This provision is not intended to waive or preclude any other remedies the parties may otherwise have in law, equity, or elsewhere in this Agreement and is in addition to and not in lieu of any other remedies.

- 7.8. Billing Audits. County and its designee shall have the right to examine and audit all of Engineer's billings/invoices and all of Engineer's backup and support data for billings/invoices for this Agreement. Upon HCED's request, Engineer agrees to make such data and supporting documentation available to the County Auditor or designee in Harris County, Texas. Engineer shall maintain complete and accurate records necessary to fulfill any obligations in this Agreement, including a copy of this Agreement, including detailed time records identifying each person performing services that were billed on an hourly basis, the corresponding dates of the services, the applicable firm fixed price and the percentage completed for specific tasks as specified in this Agreement, any applicable hourly or cost-plus rates, the total amount billed for each person as applicable, and the total amount billed for all persons as applicable. Engineer shall maintain and make available for inspection (electronically or in Harris County during regular business hours) the Records for a minimum of four (4) years days following either the end of the federal fiscal year in which any obligations were performed under this Agreement or the termination date of this Agreement (or longer if necessary to resolve any litigation, claims, financial management review, or audit findings). All payments made by County are subject to re-evaluation and refund or withholding of future payments conditioned on the results of the audit.
- 7.9. County Auditor to Make Final Decision. The decision of the County Auditor as to the amount owed shall be final if there is any dispute between County and Engineer as to the amount owed to Engineer for any monthly statement or invoice submitted by Engineer. County agrees to notify Engineer of any questionable item and is authorized to withhold payment until all questions are resolved either by final audit or by agreement of the Parties.

8. TERM OF THE AGREEMENT

- 8.1 Time Period. The time period for performance ("Term") of this Agreement shall begin September 14, 2021, and end on the later date of (a) Project completion or (b) September 13, 2022.

9. TERMINATION PROVISIONS

- 9.1 Determination of Material and Non-Material Breaches. The County Engineer shall determine whether a breach of this Agreement by either Party is material or non-material. The County Engineer's determination shall be final and binding alike on all Parties.
- 9.2 Non-Material Breaches. If either Party refuses or fails to perform any of its non-material obligations in this Agreement, the other Party may give written notice of the failure. If the breaching Party fails or refuses to cure the failure of any non-material obligation in the notice within ten (10) calendar days after notice is given, the other Party may terminate this Agreement immediately. HCED is authorized to give notice for County.
- 9.3 Material Breaches.
- 9.3.1 Suspension. HCED may suspend this Agreement immediately for any material breach by giving a notice of suspension. As soon as the notice of suspension is received, Engineer shall discontinue all services in connection with the performance of this Agreement. HCED is authorized to suspend on behalf of County.
- 9.3.2 Termination. The County may terminate this Agreement for a material breach at any time by notice in writing to the Engineer.

- 9.4 No Waiver of Remedies. The provisions in this Section are not intended to waive or preclude any other remedies the parties may otherwise have in law, equity, or elsewhere in this Agreement. The right to terminate for a material and non-material breach is in addition to and not in lieu of any other remedies.
- 9.5 Termination Statement. As soon as practicable after receiving notice of termination, Engineer must submit a statement or invoice to HCED that complies with the requirements in this Agreement. This statement or invoice must show in detail the unbilled/uninvoiced services performed for County under this Agreement to the date of termination. If the payments were to be made in lump sums and services were rendered after the last lump sum payment, the statement or invoice shall reflect the prorated amount due.
- 9.6 Return of Documents after Termination. If permitted by law and any established ethical requirements applicable to specific professionals, Engineer shall promptly deliver to HCED all completed or partially completed work product, designs, data, information, and documents prepared under this Agreement on behalf of County. Within 2 business days after the effective date of termination, Engineer shall return to HCED all records, files, documents, notes and other items in Engineer's possession, if any, relating to any assignments or work that Engineer has undertaken or been given under this Agreement, if permitted by law and any established ethical requirements applicable to specific professionals. Engineer shall deliver to HCED all completed or partially-completed designs, drawings and specifications prepared under this Agreement, including the original electronic file format. Nothing in this section is intended to require Engineer to surrender Engineer's own records to HCED after termination.
- 9.7 Agreement Transition. In the event the Agreement ends by either expiration or termination, Engineer shall, at the request of the County, assist in the transition until such time that a replacement engineer can be named. Engineer acknowledges its responsibility to cooperate fully with the replacement engineer and the County to ensure a smooth and timely transition to the replacement engineer. Such transitional period shall not extend more than ninety (90) days beyond the expiration/termination date of the Agreement, or any extension thereof. During any transition period, all other terms and conditions of the Agreement shall remain in full force and effect as originally written.

10. INDEMNIFICATION

- 10.1 No Waiver of Governmental Immunity. County does not waive any immunity or defense on behalf of itself, its employees or agents as a result of the execution of this Agreement.
- 10.2 General Indemnity. To the extent allowed by law, Engineer agrees to indemnify and hold harmless County, HCED, their officers, employees, and agents from liability, losses, expenses, demands, reasonable attorneys' fees, and claims for bodily injury (including death) and property damage to the extent caused by the negligence, intentional tort, intellectual property infringement of Engineer (including Engineer's agents, employees, volunteers, and subcontractors/consultants under contract, or any other entity over which Engineer exercises control, in the performance of the services defined in this Agreement). Engineer shall also save County harmless from and against any and all expenses, including reasonable attorneys' fees that might be incurred by the County, in litigation or otherwise resisting such claims or liabilities.

11. MISCELLANEOUS

- 11.1 Notices. Any notice required to be given under this Agreement ("Notice") may be given by hand delivery or certified United States Mail, postage prepaid, return receipt requested, addressed to the Parties at the following:

ENGINEER: Monica Silver, P.E.
President
Cobb Fendley & Associates, Inc.
13430 Northwest Freeway, Suite 1100
Houston, TX 77040-6153
Email: msilver@cobb fendley.com

COUNTY: John R. Blount, P.E.
County Engineer
Harris County Engineering Department
1001 Preston Street, Floor 7
Houston, TX 77002-1816
Email: AgreementInfo@hcpid.org

All other communications may be sent by electronic means or in the same manner as Notices described herein.

- 11.2 Receipt of Notice. Notice shall be considered given and complete upon successful electronic transmission or upon deposit in the United States Mail.
- 11.3 Change of Address. Each Party shall have the right to change its respective address by giving at least ten (10) days' written notice of such change to the other Party.
- 11.4 Force Majeure. Neither Party will be liable for any failure or delay in performing its obligations under this Agreement if such failure or delay is due to any cause beyond the reasonable control of such Party if such cause is generally recognized under Texas law as constituting impossible conditions. The existence of such causes of delay or failure will extend the period of performance in the exercise of reasonable diligence until after the causes of delay or failure have been removed. Each Party must inform the other in writing with proof of receipt within 10 business days of the existence of such Force Majeure event or otherwise waive this right as a defense.
- 11.5 E-Mail Addresses. Engineer affirmatively consents to the disclosure of e-mail addresses that are provided to County or HCED. This consent is intended to comply with the requirements of the Texas Public Information Act, Texas Government Code § 552.137, and shall survive termination of this Agreement. This consent shall apply to e-mail addresses provided by Engineer and any agents acting on Engineer's behalf and shall apply to any e-mail address provided in any form for any reason, whether related to this Agreement or otherwise.
- 11.6 Entire Agreement (Merger). This Agreement contains the entire agreement and understanding between the parties relating to the rights granted to and the obligations of the parties. All prior negotiations, discussions, correspondence and previous understandings are superseded by this Agreement. Any oral representation or modification concerning this Agreement shall be of no force or effect.
- 11.7 No Oral Modifications. Unless otherwise explicitly stated in this Agreement, this Agreement cannot be changed except by a written subsequent modification authorized by all parties.
- 11.8 Inducements. In making the award of this contract, County relied on Engineer's assurances and representations made in this Agreement. Any false assurances and representations by Engineer shall be immediate grounds for termination of this Agreement without prior notice at the option of County.
- 11.9 Contract Construction. The titles assigned to the various Articles of this Agreement are for convenience. Titles shall not be considered restrictive of the subject matter of any Article or other part of this Agreement. Likewise, the provisions of purpose in this Agreement are intended to be a general introduction and are not intended to expand the scope of the Parties' obligations or alter the plain meaning of the terms and conditions in this Agreement.

- 11.10 Ambiguities. Ambiguities, if any, shall not be interpreted against the drafter of this Agreement.
- 11.11 No Waiver of Default. Any waiver by either Party of one or more defaults on the part of the other Party in the performance of obligations under this Agreement is not a waiver of any subsequent defaults.
- 11.12 Remedies Cumulative. Unless otherwise specified elsewhere in this Agreement, the rights and remedies of County are not exclusive, but are cumulative of all rights and remedies that exist now or in the future.
- 11.13 No Third Party Beneficiaries. Unless explicitly provided in this Agreement, there is no intent by either Party to create or establish third party beneficiary status or rights in any third party, and no such third party shall have any right to enforce any right or enjoy any benefit created or established under this Agreement.
- 11.14 Non-Exclusivity. Unless explicitly provided in this Agreement, nothing shall prevent either Party from contracting with other parties for the provision of the same or similar services or deliverables that are contemplated by this Agreement.
- 11.15 Limited Personal Liability. Nothing in this Agreement shall be construed as creating any personal liability on the part of any officer, director, employee, or agent of County.
- 11.16 Dispute Resolution Process. The Parties will meet and confer in good faith to work together to resolve problems or disputes that may arise. In the event a dispute arises between the parties involving the provisions or interpretation of any term or condition of the Agreement, and if both parties desire to attempt to resolve the dispute prior to termination or expiration of the Agreement, or withholding payments, then the parties may refer the issue to a mutually-agreeable dispute resolution process.
- 11.17 Survivability Clause. Any provision, section, subsection, paragraph, sentence, clause or phrase of this Agreement that, by its plain meaning, is intended to survive the expiration or earlier termination of this Agreement, including indemnification provisions, shall survive such expiration or earlier termination. If an ambiguity exists as to survival, the provision shall be deemed to survive.
- 11.18 Savings/Severability Clause. If any provision, section, subsection, paragraph, sentence, clause or phrase of this Agreement, or the application of same to any person or set of circumstances, is held to be invalid, void, or unenforceable by a court of competent jurisdiction, that part of this Agreement shall be reformed, if reasonably possible, to comply with the applicable provisions of law. In any event, the remaining provisions the same shall continue in full force and effect, provided that the unenforceable or invalid provision is not material to the overall purpose and operation of this Agreement. If necessary in order to make this Agreement valid and enforceable, the Parties shall meet to confer upon an amendment or modification.
- 11.19 Time is of the Essence. Time is of the essence with respect to Engineer's performance under this Agreement, and Engineer shall perform all services diligently until completed.
- 11.20 Choice of Law. This Agreement shall be construed according to the laws of the State of Texas without giving effect to its conflict of laws provisions. Venue lies only in Harris County as per Texas Civil Practice and Remedies Code Sec. 15.015, and any alternative dispute resolution, suit, action, claim, or proceeding with respect to or arising out of this Agreement must be brought solely in the courts or locations that are situated in the State of Texas, County of Harris. Both parties irrevocably waive any claim that any proceeding brought in Harris County has been brought in an inconvenient forum.
- 11.21 Exhibit List. The following attachments are a part of this Agreement:
- Exhibit A. Scope of Services
 - Exhibit B. Schedule
 - Exhibit C. Compensation for Professional Services
 - Exhibit D. Engineer Team Acknowledgments

- 11.22 Tax Exemption. Pursuant to Texas Tax Code §151.309, as a political subdivision, County claims exemption from sales and use taxes and will provide exemption certificates upon written request. County shall not be liable to reimburse or pay any personal property taxes, charges, or fees assessed against Engineer.
- 11.23 Electronic or Facsimile Signatures and Duplicate Originals. Pursuant to the requirements of the Uniform Electronic Transactions Act in Chapter 322 of the Texas Business and Commerce Code and the Federal Electronic Signatures in Global and National Commerce Act (beginning at 15 U.S.C. Section 7001), the Parties have agreed that the transactions under this Agreement may be conducted by electronic means. Pursuant to these statutes, this Agreement may not be denied legal effect or enforceability solely because it is in electronic form or because it contains an electronic signature. This Agreement may be executed in duplicate counterparts and with electronic or facsimile signatures with the same effect as if the signatures were on the same document. Each multiple original of this document shall be deemed an original, but all multiple copies together shall constitute one and the same instrument.
- 11.24 Signatory Authorized to Execute Agreement. The person executing this Agreement on behalf of each Party represents that he or she is duly authorized by the policy of the Party's governing body to legally obligate and execute this Agreement on behalf of the Party.

HARRIS COUNTY

By: _____
Lina Hidalgo
Harris County Judge

COBB FENDLEY & ASSOCIATES, INC.

By: Monica Silver
Monica Silver, P.E.
President

APPROVED AS TO FORM:

CHRISTIAN D. MENEFEE

Harris County Attorney

By: Sam Kirchhoff
Sam Kirchhoff
Assistant County Attorney
CAO File Number 21GEN2396

Exhibit “A”

SCOPE OF SERVICES

Exiting Conditions:

The existing roadway is approximately 4,800 linear feet (0.91 miles) of 2-lane asphalt from ~650-ft north of Stockdick School Road to ~300-ft north of Beckendorff Road with continuous roadside ditches and culvert crossings of variable sizes throughout the length of the project. Much of the land to the west of Peek Road is being developed for residential use. Several interconnected ponds that outfall to HCFCU Unit No. U101-00-00 (South Mayde Creek) have been constructed to provide detention mitigation for the future residential neighborhoods. Land to the east of Peek Road is comprised of a mixture of residential and commercial properties and is mostly undeveloped. The drainage pattern for the roadway generally flows north from the pipeline easement north of Stockdick School Road to South Mayde Creek and south from Beckendorff Road to South Mayde Creek. The existing right-of-way (ROW) width along Peek Road appears to vary in range from 50-ft to 90-ft from north of Stockdick School Road to Beckendorff Road and widens to 100-ft north of Beckendorff Road. Existing ROW width will need to be researched and validated for actual width.

Within the project limits there is one (1) intersecting street which is currently un-signalized along with a total of twenty one (21) driveways accessing residential and commercial properties. As part of the Aurora and Katy Legacy developments currently under construction, two street connections to Peek Road are proposed approximately 900-ft north of Stockdick School Road and 1,150-ft south of Beckendorff Road.

Project Scope:

The proposed scope is comprised of 3 phases: study, design, and bid phase, and will include professional engineering, surveying, traffic, structural, drainage (H&H), geotechnical, and environmental services in order to develop the construction plans, specifications, and estimate (PS&E) package for the project.

The project will involve construction of approximately 4,800 linear feet (0.91 miles) of a standard four (4) lane divided concrete boulevard with 32-ft medians, turn lanes, and drainage improvements from ~650-ft north of Stockdick School Road to ~300-ft north of Beckendorff Road. The intersection at Beckendorff Road will be designed to the ultimate condition with the proposed concrete boulevard section extending 965-ft east of the intersection. West of the intersection Beckendorff will be extended and widened to Blue Grama Drive. 250-ft storage left turn lanes will be provided at all legs of the intersection.

A 5-foot wide sidewalk will be designed along the west ROW line of Peek Road and will extend from Stockdick School Road to Esperanza Meadow Drive. Additional connections will be made from the Sonora Bend Drive and Esperanza Meadow Drive intersections at Peek Road in addition to Darby Heights Drive at Beckendorff Road intersection to Peek Road.

The existing posted speed limit is 45 MPH for Peek Road and 35 MPH for Beckendorff Road. Final Posted speed will be determined and recommended after the completion of the project and speed study.

As an extra work item, the topographical survey and design changes along Peek Road will be refreshed to reflect the latest layout due to construction of the Katy Legacy, Aurora Subdivision and miscellaneous developments within the project's corridor.

As per HCFCD requirements, an area-wide drainage study will not be performed. The proposed storm sewer analysis will be performed using Atlas 14 rainfall intensities for the 2-year, 10-year, and 100-year storm events. The mitigation options will account for increase in impervious cover, increase in flow due to proposed drainage and any impacts to floodplain and floodway to develop measures for no adverse impact to adjacent properties and receiving drainage systems/stream. The mitigation options will also account for the additional 25% detention requirement. The overall design will be performed in accordance with the latest HCFCD criteria, Guidelines, and Specifications available on the HCFCD website.

The anticipated basic and additional services are as follow:

BASIC SERVICES

1. Pre-Design Phase

The pre-design phase will include a Preliminary Engineering Report comprised of a collection of supporting documents, findings, and recommendations for the design phase. The Engineer shall perform the engineering and related services described below and as necessary to develop a design plan including identifying any issues specific to the completion of the project and developing a resolution, acceptable to the County Engineer, for addressing such issues.

A. Study Report

The study report will include and address overall environmental and other necessary permits, a geotechnical investigation, utility coordination, and preliminary paving and drainage layout.

The engineer shall prepare and deliver to the Harris County Engineering Department a study report, which shall be a summary document that incorporates the recommendations from the supporting investigative reports, results from working meetings with HCED, necessary approvals, any information not previously provided to the Harris County Engineering Department and final recommendations from the engineer's efforts. The document is intended to serve as the framework for the design phase, having addressed the major issues that affect the project. The engineer shall use the outline available on the Harris County website to develop the Study Report, unless directed otherwise by the HCED project manager.

The Study Report shall also include but not be limited to the exhibits as identified below, as appropriate:

1. Vicinity Map
2. Project Location Map
3. Proposed Bridge and Roadway Typical Sections
4. Roadway plan and profile layout sheets depicting the existing and proposed pavement geometrics, storm sewer trunk system, roadside swales and ditches, detention basin(s), existing and proposed utilities, soil boring locations, and other detail sufficient to ensure that the final design can be constructed without any major issues. Roadway profile will not be for review and will have a "Draft Profile Not For Review" Stamp on all sheets.
5. Drainage Area Maps

6. Preliminary Detention Basin Layouts
7. Proposed Bridge Layout
8. Site Distance Restrictions depicting the right-of-way and parcel lines, proposed layout of paving, features on private property that effect the sight distance, and square footage of takings that would be required. The exhibit shall include an insert of the aerial which shows the street view looking the direction of the sight distance.
9. Signed and Sealed existing ROW maps
10. Proposed ROW maps/exhibits
11. Utility Contact/Conflict Table, sorted by owner, utilizing HCED form/table found at: <https://www.eng.hctx.net/Consultants/CIP-Resources/Templates>

The Study Report shall also include but not be limited to the attachments as identified below, as appropriate:

1. Approved Geotechnical Report
2. Approved Environmental Reports
3. Approved Drainage Report
4. Traffic Signal Warrant Study

B. Meetings

The Engineer shall participate in the following meetings with HCED:

Pre-Design (Study) Phase Meetings

- Pre-Design (Study) Phase Kickoff Meeting
- Topo Survey Field Verification Meeting
- Alignment/ROW Meeting
- Utility Coordination Meeting
- Drainage Meeting
- Pre-Client Presentation Meeting
- Client Presentation Meeting

Design Phase Meeting

- Design Kickoff Meeting
- SOLS/50% Field Meeting, if necessary
- Traffic Control Plan Concept Meeting
- CIP/CPD Joint Field Meeting

Bid Phase Meeting

- Pre-Bid Meeting

Additional meetings will be held on an as necessary basis to discuss project progression or to resolve design issues.

C. Drainage (H&H)

The following tasks will be performed and included in the drainage component of the project:

1. Obtain necessary and available information including record drawings, drainage studies and effective HCFCD models pertaining to the project area, the adjacent subdivisions and S. Mayde Creek. Review and evaluate the existing drainage systems and outfalls for the project area.

2. Perform site visits and adequately document the existing conditions.
3. Use available LiDAR and survey data to determine existing overland sheet flow conditions.
4. Determine existing conditions drainage areas (for runoff within the Harris County ROW as well as offsite contributing areas), outfalls, and perform hydrologic and hydraulic calculations for 2-year, 10-year and 100-year storm events, based on Atlas 14 rainfall intensities. The analysis will determine the conveyance capacity of the existing roadside ditches and culverts. The effective HEC RAS models for S. Mayde Creek will be used to determine the tail water conditions for the outfalls to the channel.
5. Perform proposed conditions drainage analysis for proposed roadway including mitigation options for 2-year, 10-year and 100-year storm events with Atlas 14 rainfall intensities. The mitigation options will account for increase in impervious cover, increase in flow due to proposed drainage and any impacts to floodplain and floodway to develop measures for no adverse impact to adjacent properties and receiving drainage systems/stream. The mitigation options will also account for the additional 25% detention requirement.
6. Perform an impact analysis for the proposed bridge options using HEC-RAS (Version 3.0.1) software (HCFCD effective models) for the proposed roadway bridge across S. Mayde Creek. The bridge impact analysis will include the roadway bridge spanning the ultimate HCFCD right of way and will include options for floodplain and floodway mitigation.
7. All analysis and design tasks will be performed in accordance with the latest editions of Harris County Engineering Department (HCED) criteria and HCFCD's Policy, Criteria and Procedure Manual.
8. All modeling tasks will be performed in compliance with the HCFCD's Hydrologic and Hydraulic Modeling & Management Standards
9. All submittals will be in accordance with the HCFCD's M3 system Electronic Review Submittal Guidelines
10. Develop dynamic drainage system models to quantify flows associated with the design and extreme rainfall events and will determine the proposed system sizes.
11. Perform off-site detention routing calculation and basin design.

D. Utility/Pipeline Investigation

The Engineer shall perform investigations, research, and other activities necessary to identify any potential utility/pipeline conflicts with the Project, including but not limited to:

1. Locating and identifying all existing utilities/pipelines including casings and vent pipes within the existing and proposed rights-of-way, including obtaining information from utility owners record drawings and site reconnaissance, as well as shooting elevations marked or uncovered by others, and providing Subsurface Utility Engineering Level B effort to locate all subsurface utilities within the existing and proposed ROW.
2. Meeting with the utility companies to provide information and plan and profile/schematic exhibits, as necessary.
3. Identify major utilities (i.e. pipelines, concrete incased conduits, water, sanitary sewer, storm sewer, or other utilities of this nature) that may require relocation.
4. Identifying any utilities that are within dedicated easement that will be within the proposed right-of-way (i.e. utilities for which the County may be responsible for the cost of any adjustments and/or relocations).

5. Providing a contact/conflict table listing each utility type, begin and end station of utility conflict, utility owner, contact person (name, address, phone number, and email address), notes in regards to potential conflict, and notes in regards to making recommendations for addressing potential conflicts.
6. The design for potential replacement, relocation, and/or betterment of the existing water and wastewater facilities within Peek Road ROW will not be performed in this contract. If the existing utilities lie within the Peek Road ROW, depending on the proposed roadway design, the County can and may request utility owners to pay for design and construction of any/all relocation, replacement, and betterment of such utility lines at no cost to the County.

E. Survey

The Engineer shall evaluate the existing ROW envelope and make recommendations for the acquisition of ROW necessary for the Project including but not limited to roadway, corner cuts, sight distance triangles, detention, and outfalls. The Engineer shall prepare a ROW Acquisition Table which shall include a parcel ID number, acreage (and square footage) to be acquired, acreage of the parent tract, acreage remaining of the parent tract, current owner, recording information, current flood plain zone, and note any issues that may affect the acquisition of the parcels.

1. Right of Way Survey (TSPS Category 1B, Condition 2)
 - a) Deed abstract of existing Peek Road right-of-way, adjoining properties, and easements along the route (7,720 feet).
 - b) Prepare existing Right-of-Way Map of the project showing the existing road right-of-way, and easements of Peek Road from 965 feet north of Stockdick School Road to Esperanza Meadow Drive, Beckendorff Road from Darby Heights to 965 feet east of Peek Road, and Esperanza Meadow Drive from Peek Road to Senora Bend (7,400 feet).
 - c) Prepare Survey Control Sheet(s) based on the new design centerline with associated benchmarks, control points, and recovery sketches for the construction plan set.
 - d) Establish a recoverable existing and proposed iron rods and/or monumentation set for cutback corners along Peek Road and at intersecting streets.
 - e) Establish and recover design/construction baseline(s) and stake baseline(s) on the ground prior to the Construction.
2. Topographic Surveying, Roadway (TSPS Category 6, Condition 2)
 - a) The linear Topographical survey along Peek Road from 965 feet north of Stockdick School Road to 450 feet north Beckendorff Road, and Beckendorff Road from Darby Heights to 965 east of Peek Road, and Esperanza Meadow Drive from Peek Road to Senora Bend (7,400 feet).
 - b) Topographic survey to update the new construction of Peek Road from Stockdick School Road to the pipeline easement.
 - c) Detail survey of existing bridge to define hydraulic opening, low chord, abutment, etc., and channel cross section within the ultimate HCFCD right of way and proposed Peek Road right of way.

The Engineer will provide the following within the surveying limits described in Task 2:

- a) Establish horizontal and vertical project control. Elevation shall be based on FEMA datum.
- b) For the roadway, obtain cross sections at 100-foot intervals along the roadway. Cross-sections shall extend 25 feet beyond the proposed right-of-way lines or 150 ft wide as applicable and 60 feet outside proposed right-of-way for objects or obstructions. Identify locations and elevations of physical features to include buildings, fences, walls, trees, sidewalks, driveways and driveway curbs, power poles, light poles, water meters, water wells, ponds, sprinklers, off-site drain pipe, etc. Horizontally and vertically locate existing utilities within, crossing and adjoining project limits. Utilities will be located and tied based on visual evidence and utilities based on maps and plans provided by the Client and marked by "One Call" within the projects limits, Flow line elevations, sizes, material types and directions of pipes will be obtained on storm sewer lines, sanitary sewer lines and culverts. The rim (top) and flow line elevations will be obtained on inlets, manholes, and drainage structures.
- c) The Engineer will coordinate with pipeline companies, municipal utility districts (MUDs), Harris County, and private utility agencies to obtain locations of existing utilities and depths of existing pipelines and provide Level B Subsurface Utility Engineering.
- d) Obtain elevations and locations of soil borings.
- e) The 3D topographical survey base map and digital terrain model (DTM), surface triangular irregular network (TIN) will be created for the existing roadway and drainage channel from field data.
- f) The survey line work and surface TIN shall be provided to the Client in Microstation/Geopak CADD platform.

F. Geotechnical

1. Soil Sampling Services

The scope of services covered in this proposal consist of field exploration, laboratory testing and the preparation of a geotechnical engineering report for the pavement, utilities, bridge foundation and open channel. The geotechnical engineering report will include a pavement design section for concrete pavement, utility trench safety analysis, and culvert foundations.

The proposed Peek Road roadway length is approximately 4,800-ft with a portion of Beckendorff Road being widened in both directions. Per HCED geotechnical criteria, the borings will be spaced at 500 feet. We propose to drill nine (9) 15-ft soil borings along Peek Roads for the roadway and utilities reconstruction and two (2) 10-ft soil borings along Beckendorff Road for the temporary asphalt transition along Beckendorff Road for a total of eleven (11) soil borings. We also propose to drill two (2) 100-ft soil borings at the single span bridge crossing Mayde Creek, install one (1) 50-foot piezometer in an auger boring adjacent to the bridge and convert one (1) 15-foot boring to piezometer to monitor long-term water level conditions and will grout all boreholes except the piezometer borings using non-shrink cement bentonite grout after completion of drilling and water level measurements. As an optional addition service we propose five (5) soil borings to a depth of 20 feet each for a proposed detention pond.

The field work will be conducted using standard geotechnical drilling and sampling procedures. All drilling will be performed in accordance with general ASTM D 1586 and D1587 criteria. We will transport representative portions of the recovered samples to our soil mechanics laboratory for testing. The geotechnical work and the engineering analysis report must be in accordance with the latest Geotechnical Investigation Guidelines and the report shall be reviewed and is subject to HCED and HCFCFCD approval.

2. Laboratory Testing

The Engineer will perform laboratory tests including consolidated undrained (CU) triaxial tests, permeability tests, double hydrometer and crumb tests on representative soil samples per HCED and HCFCFCD criteria to evaluate the engineering properties of the soils. We will keep the samples for 90 days after the final report is accepted by HCED and will discard the samples after that time, unless instructed otherwise.

3. Geotechnical Report

The Engineer will prepare an engineering report that will present our findings and provide you with geotechnical design recommendations including:

- a) Excavation Stability, bedding backfill and ground water control for the proposed storm sewers.
- b) Pavement recommendations including subgrade stabilization, and construction considerations.
- c) Foundation recommendations and abutment slope stability analysis for bridge crossing Mayde Creek.
- d) Construction considerations.

Optional Additional Service

- e) Perform slope analyses and evaluate dispersive characteristics of soil for the proposed detention pond in accordance with HCFCFCD criteria after completion of PER phase.
- f) Prepare and submit an addendum geotechnical report for the proposed detention pond.

The draft and final report will be provided in electronic pdf format and will contain a plan showing the locations of the borings and recommendations as outlined above.

Soil parameters will be based on laboratory test results from this geotechnical investigation, previous geotechnical investigations if available, and our personnel's past experience with similar soils. The analyses will comply with the applicable requirements in the HCED "Guidelines and Minimum Requirements for Geotechnical Reports".

G. Environmental

1. Phase I Environmental Assessment

The Engineer shall conduct the Phase I ESA following the standard operation procedure prescribed by the American Society for Testing and Materials (ASTM) E1527-13 Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process. The purpose of a Phase I ESA is to document environmental conditions or substances indicative of past, present, or possible future adverse impacts to the soil,

groundwater, or surface water as a result of operations on or near the property. The Phase I assessment may also indicate the need to further investigate environmental impacts associated with the property. The goal of the Phase I ESA is to identify recognized environmental conditions (RECs) or historical recognized environmental conditions (HRECs) that may impact or restrict use of the property and to identify any potential long-term environmental compliance obligations incumbent of the property owner. This is done by completing an environmental professional inquiry, an on-site inspection, a site history review, and an agency database review.

Environmental Professional Inquiry

This task entails initial preparations for assessing the subject property, such as identifying persons familiar with the subject property and scheduling/conducting interviews to inquire about the past history and RECs or HRECs at the subject property. This task will include, to the extent possible, interviews with individuals familiar with historic operations of the site.

On-Site Inspection

The Engineer will conduct an on-site inspection of the subject property. This inspection which will include:

- Observing, evaluating, and recording the physical setting of the property, adjoining properties, and general land use in the area.
- Interviewing the current property owner, tenant, and/or personnel familiar with the site to ascertain current and past operations that may have led to a release of oil, gasoline, solvents, or hazardous materials (as defined by Comprehensive Environmental Response, Compensation, and Liability Act) to the air, soil, groundwater, or surface water.
- Observing and documenting any staining potentially present onsite as a result of equipment or chemical storage.
- Collecting photo documentation of the subject property and surrounding properties to identified RECs/HRECs.

Site History Review

A site history review will be conducted to evaluate previous ownership and land use and will include:

- Evaluating any available local geology and hydrogeology data.
- Identifying all local groundwater wells and their capacity.
- Interviews with local officials such as the Fire Marshal, town, city, or county engineer/assessor to examine the property's history.
- Examining historic aerial photographs, fire insurance maps, historic topographic maps, and city directories.

Agency Database Review

The Engineer will review federal, state, and local agency files to obtain records available from standard sources to evaluate current and historic activities associated with the subject property to identify RECs and/or HRECs. The specific databases listed in Section 8.2.1 of ASTM E1527-13 will be reviewed and will include, at a minimum, the following:

- Hazardous Waste Activities Files,
- Files documenting spills of oil or hazardous materials,
- Surface water discharge (National Pollutant Discharge Elimination System) permits,
- Air emission files,
- Underground storage tank/leaking underground storage tank files,
- National Priority List and Comprehensive Environmental Response, Compensation, and Liability Information System database sites,
- U.S. Environmental Protection Agency Facility Index System database,
- Emergency Response Notification System, and
- Location of area landfills and disposal sites.

The findings of the Phase I ESA will be detailed in a report along with The Engineer's professional opinion regarding the presence of recognized environmental conditions. This report will be provided in electronic format for client review.

Assumptions:

- Access to the subject property will be freely provided to the Engineer.
- A chain-of-title (deed chain) for the subject property back to first development, searches for environmental cleanup liens, or considerations between the purchase price and fair market value for the subject property are not included in this proposal.
- No provision is included for landowner restrictions, delays or other factors beyond the Engineer's control.
- If a Phase II ESA Assessment is required for the project, the Engineer will provide a separate proposal for that work.

2. Wetland Delineation

The Engineer will conduct a delineation of potential waters of the United States, commonly referred to as a wetland delineation, following the technical standards and procedures described in the 1987 USACE Wetlands Delineation Manual and the applicable Regional Supplement(s) to the manual. The Engineer will investigate the project area for the presence, or absence, of areas possessing the three mandatory wetland parameters (hydrophytic vegetation, hydric soils, and wetland hydrology), and delineate the boundaries of those areas. The Engineer will collect all necessary data to calculate the functional value of wetlands within the project area. Additionally, the Engineer will collect the data necessary to determine the extent of the mean high tide limit within the property.

The Engineer will additionally identify non-wetland waterbodies (i.e., rivers, streams, channels, ponds) by the presence of an ordinary high water mark (OHWM). An OHWM is a line on a shore established by fluctuations of water and indicated by physical characteristics such as a clear, natural line impressed on the bank, shelving, changes in the character of soil, destruction of terrestrial vegetation, the presence of litter and debris, or other appropriate means that consider the characteristics of the surrounding areas.

A Global Positioning System (GPS) unit capable of sub-meter accuracy will be used to geographically reference all wetland and non-wetland waterbody features and data point locations. The location of wetland and non-wetland features and data points will be depicted on aerial photographs or alignment sheets included in reports and provided in electronic (.kmz or .shp) format to HCED. Following completion of field work, the

Engineer will provide wetland delineation report findings suitable to submit to USACE, if necessary.

Assumptions:

- Based on the data provided, field surveys will be completed through a 2-day deployment using one, two-person crew.
- To ensure design flexibility, the Engineer will assess a project area that extends 100 feet on either side of the project's centerline.
- Delays due to land access, expansion of the project area, coordination, or weather are not included in this proposal.

3. Threatened and Endangered Species Assessment

The Engineer shall evaluate the potential of the project to affect federally protected species known to inhabit project area. Drawing from U.S. Fish and Wildlife Service (USFWS), Texas Parks and Wildlife (TPWD), and other sources, the Engineer will obtain species lists and habitat descriptions. Using aerial photography, the Engineer will conduct a desktop evaluation of potential habitat within the project area for each listed species. Additionally, the Engineer will request occurrence documentation from TPWD's Texas Natural Diversity Database and USFWS's Information for Planning and Consultation databases for the project area and general vicinity (within approximately five miles).

The Engineer will conduct qualitative comparisons of the habitat requirements of the listed species with vegetation communities or landscape features observed in the project area. If an area meets the habitat requirements of a listed species, that area will be mapped by the use of both GPS and aerial photo interpretation. The Engineer will not search for listed species in the field, although signs of such species (e.g., mima mounds, old nests) will be recorded, if observed.

The field portion of this assessment will occur concurrently with the wetland delineation effort. Following completion of all field work, the Engineer will provide a report of findings suitable to submit to USACE and/or USFWS, if necessary.

Assumptions:

- The Engineer assumes that the proposed project will have no effect on protected species.
- Field work will be completed concurrently with Task 1.
- Should species-specific become necessary to facilitate permitting, the Engineer will provide a revised scope of work.

4. Cultural Resources Constraints Analysis

The Engineer shall conduct a cultural resources constraints analysis of the project area. The goal will be to gather all available information regarding previously conducted cultural resources surveys; previously documented cultural resources including archaeological sites, cemeteries, and above-ground historical resources; identify the potential for these resources to affect the current development and determine management recommendations to satisfy all applicable Federal or State cultural resource laws.

For this research, an archaeologist will search site files, records, and maps available at the Texas Archaeological Research Laboratory (TARL) and the Texas Historical Commission (THC) Texas Historic Sites Atlas (TASA), an on-line database. These sources provide information on the nature and location of previously recorded archaeological sites, locations of National Register of Historic Places (NRHP) properties, State Antiquities Landmarks (SALs), Official Texas Historical Markers (OTHMs), Registered Texas Historic Landmarks (RTHLs), cemeteries, and other historic properties located in or near the project area.

Other critical factors that will be examined include the level of previous disturbances from utility, residential, or commercial development, types of soils, and any obvious standing structures which appear on USGS topographic maps and aerial photographs. This background research will provide site and geographic information that will be critical to the discovery and interpretation of all cultural resources within the project area and allow the Engineer to refine future survey scopes and methods accordingly.

Once the background literature and records review are complete, the Engineer will prepare a report detailing the analysis. This report will document the methodology used in the investigations, the presence and condition of any previously recorded sites and/or surveys revealed in the literature review and provide estimates on the level of future archaeological work, if any, that may be necessary to satisfy potentially applicable Federal or State cultural resource laws. The Engineer will provide a draft report to Harris County Engineering for their review and approval, followed by a final report incorporating all comments and suggestions. The report can be used for planning purposes and, if desired, can be submitted to the USACE Galveston District and/or THC to aid in establishing the required level of effort for archaeological compliance across the project area.

5. USACE Permitting Support

According to information provided in the kickoff meeting, construction of the project will require widening Peek Road, improving storm drain infrastructure, and improving the Peek Road bridge crossing Mayde Creek. We understand that, if possible, HCED desires to complete all operations under Harris County's Regional General Permit (RGP). If the project cannot be constructed in a manner that obviates the need for a permit, the Engineer will develop the documents necessary to submit a pre-construction notification (PCN) to the USACE for the project's construction. Specifically, these include a cover letter, PCN text, project maps and plans illustrating construction activities, coastal zone consistency form, jurisdictional forms and tables, and other documents, as needed.

Assumptions:

- The Engineer assumes the project's wetland jurisdictional status will be verified by USACE through a preliminary jurisdictional determination.
- Plan and profile drawings for all fills will be provided by HCED or its designee.
- Fill and conversion associated with the project will not exceed the threshold of an RGP.
- No more than one set of permitting documents will be required.
- The Engineer assumes that no more than 16 hours of permit coordination will be required after PCN submittal.
- If an individual permit is required for the project, the Engineer will provide a proposal for that work prior to development.

H. Structural

The existing bridge is a 39-foot wide, two span, box beam bridge originally built in 1988 and includes an existing water gauge attached to the east deck edge. The Engineer shall design two bridges to accommodate two lanes of traffic with sidewalks per Harris County standards on each bridge. The Engineer will assess the feasibility of a future pedestrian undercrossing. The following tasks will be performed during the study phase of the project:

1. Prepare conceptual bridge layout
2. Create bridge typical section
3. Coordinate with Drainage Engineer for bridge hydraulics
4. Develop trail layout exhibit near northern abutment
5. Prepare preliminary cost estimate

2. Design Phase

The design submittal will have addressed and incorporated pertinent comments from HCED staff on the Study Phase. The engineer will perform detail design of the approved recommendations made on the study report. The design phase will also include further coordination and subsequent meetings with utility companies and HCED staff in order to provide them with the necessary information in order to resolve and/all conflicts and to ensure a feasible and expedient plan of action or alternative to successfully construct the project. The design phase will have 3 submittals at the completion of 95%, 100% and 100% (final) plans respectively.

A. Traffic Control Plan

An overall traffic control plan (TCP) approach and construction phasing will be presented to the HCED project manager and traffic section at the TCP concept meeting. Detailed traffic control plans (TCP) will be prepared at first and second submittals based on the approach and the number of construction phases decided in the conceptual TCP meeting. TCP will be designed according to the latest edition of The Texas Manual on Uniform Traffic Control Devices.

B. Traffic Signals

If a traffic signal is warranted, the engineer will design a mast arm traffic signal system to be installed at the Peek Road and Beckendorff Road intersection. Traffic signal design will be based on the latest HCED design criteria.

C. Structural/Bridge Engineering

1. Prepare bridge layout including provisions for attaching water gauge
2. Bridge typical sections (Including phasing sections)
3. Prepare foundation layout
4. Prepare abutment details (Phase construction)
5. Prepare interior bent details (Phased construction).
6. Prepare framing plan
7. Prepare prestressed concrete span unit
8. Design beams (Prestressed Concrete Slab, Box or I Girder)

9. Prepare pipe support/water gauge connection detail
10. Prepare approach slab details
11. Assemble bridge standards (Harris County)
12. Develop trail layout and details near northern abutment, if required
13. Prepare cost estimate for each design submittal

D. Stormwater Pollution Prevention Plan

Storm water pollution prevention plans (SWPPP) will be prepared and included in the construction documents and project manual based on Harris County criteria.

E. Stormwater Quality Management Plan

If stormwater detention basins are warranted for the project, stormwater quality management plans (SWQMP) will be prepared and included in the project submittals, construction documents and project manual based on Harris County criteria.

F. PS&E Deliverables

The following deliverables will be provided to HCED – There will be 3 submittals during the design phase of the project according to the design schedule prepared by the Engineer:

1. First Submittal (100%)

Electronic submittal in pdf format of (11"x17") unsigned plans for review including but not limited to:

- a) HCED and HCFCD Express Review Sheets
- b) Project Layout/Clearing and Grubbing Limit Sheet
- c) Quantity Summary Sheets
- d) Survey Control and ROW Maps
- e) Pavement Geometrics Layout
- f) Intersection Grading Layout
- g) Roadway Plan and Profile Sheets
- h) Storm Sewer Laterals
- i) Detention Pond Layouts, if required
- j) Driveway Summary Sheets
- k) Drainage Area Maps
- l) Water and Sanitary Plan and Profile Sheets, if required
- m) Bridge Design and Attachments Sheets
- n) Traffic Control and Demolition Plans
- o) Signing and Pavement Marking Plan
- p) Traffic Signal Plan
- q) Storm Water Pollution Prevention Plan
- r) Storm Water Quality Management Plan, if required
- s) Cross Sections
- t) Soil Boring Logs
- u) Test Hole Data Sheets
- v) Miscellaneous Detail Drawings
- w) Construction Cost Estimate (Excel)
- x) Bid Sheet

- y) Utility Conflict Table
- z) Attachment L
- aa) Attachment M
- bb) Report File

2. Second Submittal (100%)

- a) Electronic submittal in pdf format of (11"x17") and (22"x34") sealed plans including signatures from utility companies and HCFCD and permits
- b) Updated Documents from Previous Submittal
- c) Comment Responses from Previous Submittal

3. Final Submittal for Bidding (100% Final)

- a) Electronic submittal in pdf format of (11"x17") and (22"x34") signed and sealed plans
- b) Updated Documents from Previous Submittal
- c) Comment Responses from Previous Submittal
- d) CAD files

3. Bid Phase

The project construction cost estimate and bid sheets will be prepared as defined by HCFD Purchasing template. The Engineer will prepare any special specification and/or special provisions required which will be augmented to the attachments M & L (standard documents) as indicated in the HCFD web site. The project will be bid through Purchasing under the "Bonfire" bidding platform. Purchasing will prepare the bid tab for the Engineer. The Engineer will:

- Attend Pre-Bid meeting
- Answer Bidders Questions
- Issue Addendums/Clarifications of Plans, if necessary
- Evaluate Bids and issue the Letter of Recommendation for Contract Award

OPTIONAL ADDITIONAL SERVICES

The Engineer, upon prior written authorization from the County Engineer, shall furnish the following additional services in accordance with the applicable guidelines and the County shall compensate the Engineer therefore as set forth below:

A. Changes to Drawings

B. Geotechnical

1. Detention Pond Geotechnical Report

The soil borings and geotechnical analysis for operation of the detention pond site will be conducted upon determination of location and size of detention site. The geotechnical report will be prepared with analysis and recommendations for operation of the site based on the HCFCD geotechnical requirement and criteria.

C. Drainage (H&H) - CLOMR

The engineer shall prepare models, exhibits, data and documentation pertaining to a FEMA CLOMR submittal.

D. Subsurface Utility Engineering (SUE) - Level A

The Engineer shall perform the SUE work required for the project in general accordance with the recommended practices and procedures described in ASCE Publication CI/ASCE 38-02 (Standard Guideline for the Collection and Depiction of Existing Subsurface Utility Data).

Quality Level A (QL “A”) – Also known as “locating,” this quality level provides precise three-dimensional (x, y, z) information at critical locations by exposing specific utilities. Non-destructive vacuum excavation equipment is used to expose the utilities at particular points, which are then tied down by the survey.

The Engineer will provide SUE services to determine the XYZ location of the existing pipelines that cross Peek Road. Traffic Control will be utilized for the Level A efforts and will conform to all MUTCD standards. The Engineer will perform survey of the Level A test hole locations to a project control provided by the Client.

E. Environmental

1. Stream Functional Assessment

Based on the project’s planned expansion of the Mayde Creek bridge and potential placement of material within the channel, the Engineer assumes that a stream assessment will be required to calculate the baseline conditions of Mayde Creek. Therefore, the Engineer will provide a stream assessment following USACE Galveston District’s Stream Condition Assessment Procedure (SCAP) Level 1 Stream Assessment for the vicinity of the planned stream crossing. The Level 1 SCAP is intended for impacts to ephemeral streams and intermittent and perennial streams of less than 500 linear feet of stream reach. As viewed through the kickoff meeting, it appears that the impacts to Mayde Creek will be restricted enough that a Level 1 Stream Assessment will suffice for the USACE permitting requirements.

Assumptions:

- Mayde Creek is an effluent-dominated, perennial stream. SWCA assumes that any channel lining required to stabilize the stream at the bridge crossing will be less than 500 feet and will, therefore, fall under the threshold for a Level 2 Stream Assessment. If bridge construction plans require a standard (individual) permit, SWCA will need to develop a Level 2 Stream Assessment and will provide an additional scope and cost at that time.
- Based on the property dimensions provided, field surveys will be completed through a one-day deployment using a two-person crew. Delays due to land access, coordination, or weather are not included in this proposal.
- All deliverables will be provided electronically in .pdf or .docx format.

2. Cultural Resources Field Survey and Reporting

In the event that the results of cultural resources desktop review of the proposed project area or regulatory agency(ies) determine that a cultural resources field survey is required, the Engineer will conduct an intensive archaeological survey of the project area. As the project is sponsored by the HCED, a political subdivision of the state, a Texas Antiquities Permit will be required prior to the onset of any field investigations. The Engineer will prepare the requisite permit application and accompanying scope of work document, obtain the necessary signatures, and submit the permit package to the THC.

Once the background review is completed and a Texas Antiquities Permit is obtained, the Engineer will conduct an intensive archaeological survey of the project area. The survey will be of sufficient intensity to determine the nature, extent, and, if possible, significance of any cultural resources located within the investigated project area. The survey will meet all THC minimum archaeological survey standards for such projects with any exceptions thoroughly documented. The field survey will consist of one team of two archaeologists.

During the survey, the archaeologists will be examining the ground surface and erosional profiles for cultural resources. Subsurface explorations to be utilized during the survey include shovel tests. Based on an initial review of the project area, the Engineer assumes that the highly disturbed project area would require minimal subsurface investigation. As such, the Engineer proposes up to 50 shovel tests may be judgmentally placed within the project area to document the level of disturbance. A preliminary assessment of the project area assumes that no archaeological deep testing will be required.

Shovel tests will be 30 cm in diameter and excavated in 20-cm arbitrary levels to 1 m in depth, to culturally sterile deposits, or to the anticipated depth of disturbance for the project, whichever comes first. The matrix will be screened through ¼-inch hardware mesh and backfilled upon completion. The location of each shovel test will be plotted and field data recorded using a tablet with a GPS receiver.

The Engineer anticipates no archaeological sites will be identified. If an archaeological site is encountered in the proposed project area during the investigation, it will be explored as much as possible with consideration to land access constraints. Any discovered sites will be assessed in regard to potential significance so that recommendations can be made for proper management (avoidance, non-avoidance, or further work).

Additional shovel tests will be conducted per THC standards at any discovered sites to define horizontal and vertical boundaries. Appropriate State site forms will be filled out for each site discovered during the investigations. The goal of the survey will be to identify, delineate, and design around significant archaeological deposits to avoid further cost-prohibitive testing (i.e., backhoe trenching or Phase II significance testing).

A detailed plan map of each site will be produced, and site locations will be plotted on USGS 7.5-minute topographic maps and relevant project maps. The Engineer will utilize tablets with submeter accuracy GPS to map sites and spatially relate them to the project corridor. These site polygon data will be provided to the client for accurate plotting and use in their geographic information system (GIS) systems and planning.

The Antiquities Code of Texas mandates that records of the investigation be curated at an approved repository. To minimize costs, the Engineer is proposing a non-collection survey. Artifacts will be tabulated, analyzed, and documented in the field, but not collected.

Temporally diagnostic artifacts will be described in detail and photographed in the field. Only especially rare artifacts or discoveries will be collected. This policy will reduce curation costs once the fieldwork is concluded; however, field notes and other records resulting from the investigation are required to be curated irrespective of whether artifacts are recovered. As such, a minimal fee is assumed for the curation of records resulting from the investigation.

Once the archaeological survey has been completed, the Engineer will analyze the field data and artifacts (if any) and produce a report of the investigations. The report will conform to all National Historic Preservation Act (NHPA) and Antiquities Code of Texas report guidelines. Analysis of field data and collected artifacts will include mapping, the production of appropriate site forms for all documented sites, analysis and tabulation of artifacts, and the review, organization, and assessment of field notes. Once this is complete, the Engineer will prepare a report of the investigations. The report will briefly document previous investigations in the area, background cultural and environmental settings, the methodology used in the investigations, the general nature and extent of cultural resources encountered during the archaeological survey, recommendations on the need for further work (if any), and the potential significance of the cultural resources in regard to future development and eligibility for the NRHP or designation as a SAL.

Draft copies of the report will be submitted to HCED for review and comment. Upon receiving comments from HCED, the Engineer will revise and submit a draft report to the THC (and lead federal agency, if applicable) for review. Following THC review and approval, the Engineer will produce a final report and curate project documentation to satisfy all requisite Texas Antiquities Permit obligations.

Assumptions:

- The proposed archaeological survey methodology is dependent on review and approval of the THC and authorization of a Texas Antiquities Permit. If the THC requires a more intensive survey than presented in this proposal, the Engineer's cost estimate will no longer be valid.
- The Engineer is assuming that the survey corridor will only require a single transect of subsurface tests on either side of the proposed right-of-way requiring no more than 50 shovel tests, per THC standards.
- The Engineer is proposing a non-collection survey. In the event that especially rare artifacts or discoveries are identified, these may be collected. The costs presented herein assume a nominal fee of \$500 for the curation of all paperwork derived from the investigation. Curation of artifacts is not included in this proposal.
- The Engineer anticipates that no archaeological sites will be identified during the survey.
- No archaeological deep testing by backhoe trenching is included in this proposal.
- No viewshed or other indirect effect studies are proposed for historic aboveground resources.
- Specialized studies, such as detailed archival research for historic aboveground resources, Phase II significance testing, or data recovery/mitigation, are beyond this task.
- No tribal consultation is included in the proposal.

- The Engineer assumes 1 week for Texas Antiquities Permit preparation, up to 30 days for THC review and permit assignment, and 2 days to complete field survey to be scheduled within 1 week of permit receipt. After fieldwork is completed, SWCA assumes that report production and THC submittal will be completed within 4 weeks.

F. Survey

1. Proposed ROW Maps (TSPS Category 1A, Condition 2)

The Engineer shall provide services including surveying in accordance with Category IA Condition II Land Title Survey, as necessary to prepare and provide Proposed ROW Maps and metes and bounds descriptions for proposed parcel takings. The maps shall be at a scale of 1" = 40' on 11" x 17" sheets, shall identify any ROW needed for the Project including but not limited to roadway, corner cuts, sight distance triangles, outfalls, and detention. All structures shall be dimensioned to the proposed ROW.

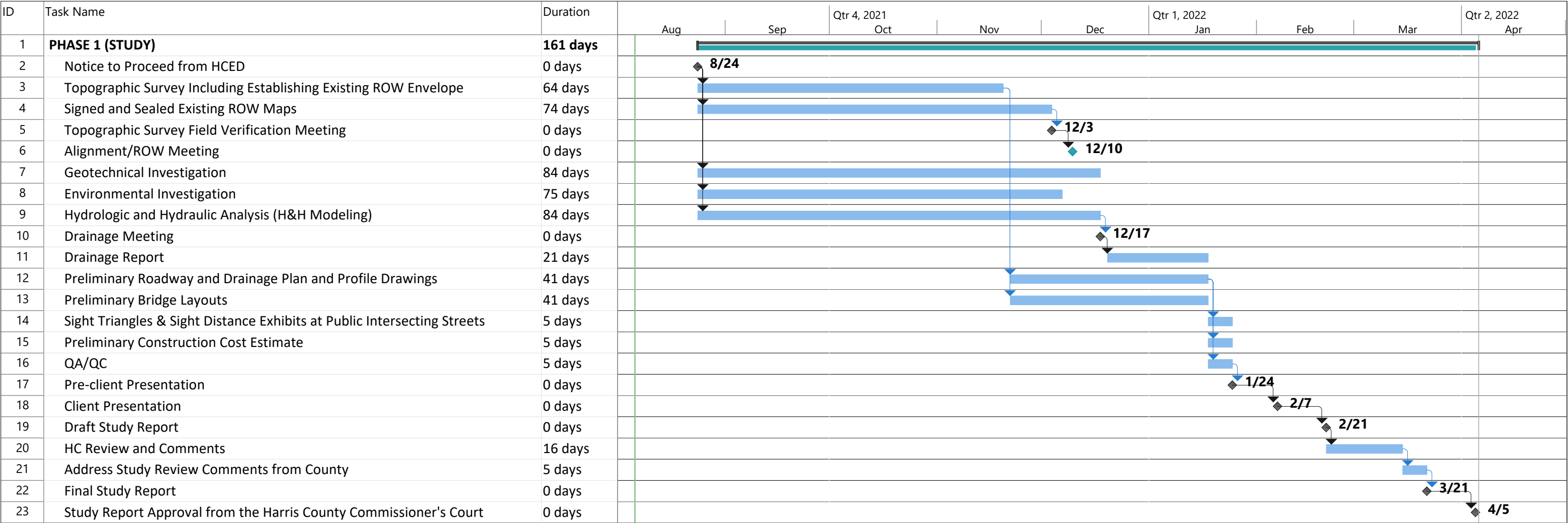
2. Boundary Right of Way Survey of Proposed Detention Pond(s) (Land Title Survey) (TSPS Category 1A, Condition 2)

Preparation of parcel plat and metes and bounds for proposed 5 acre detention pond; site to be determined.

3. Topographic Surveying – Detention Pond (TSPS Category 6, Condition 2)

The topographical survey of a proposed 5 acre detention pond; site to be determined. Elevation at 50 foot intervals.

Exhibit B



Project: Simple Project Plan
Date: Fri 8/6/21

Task

Split

Milestone

Summary

Project Summary

Inactive Task

Inactive Milestone

Inactive Summary

Manual Task

Duration-only

Manual Summary Rollup

Manual Summary

Start-only

Finish-only

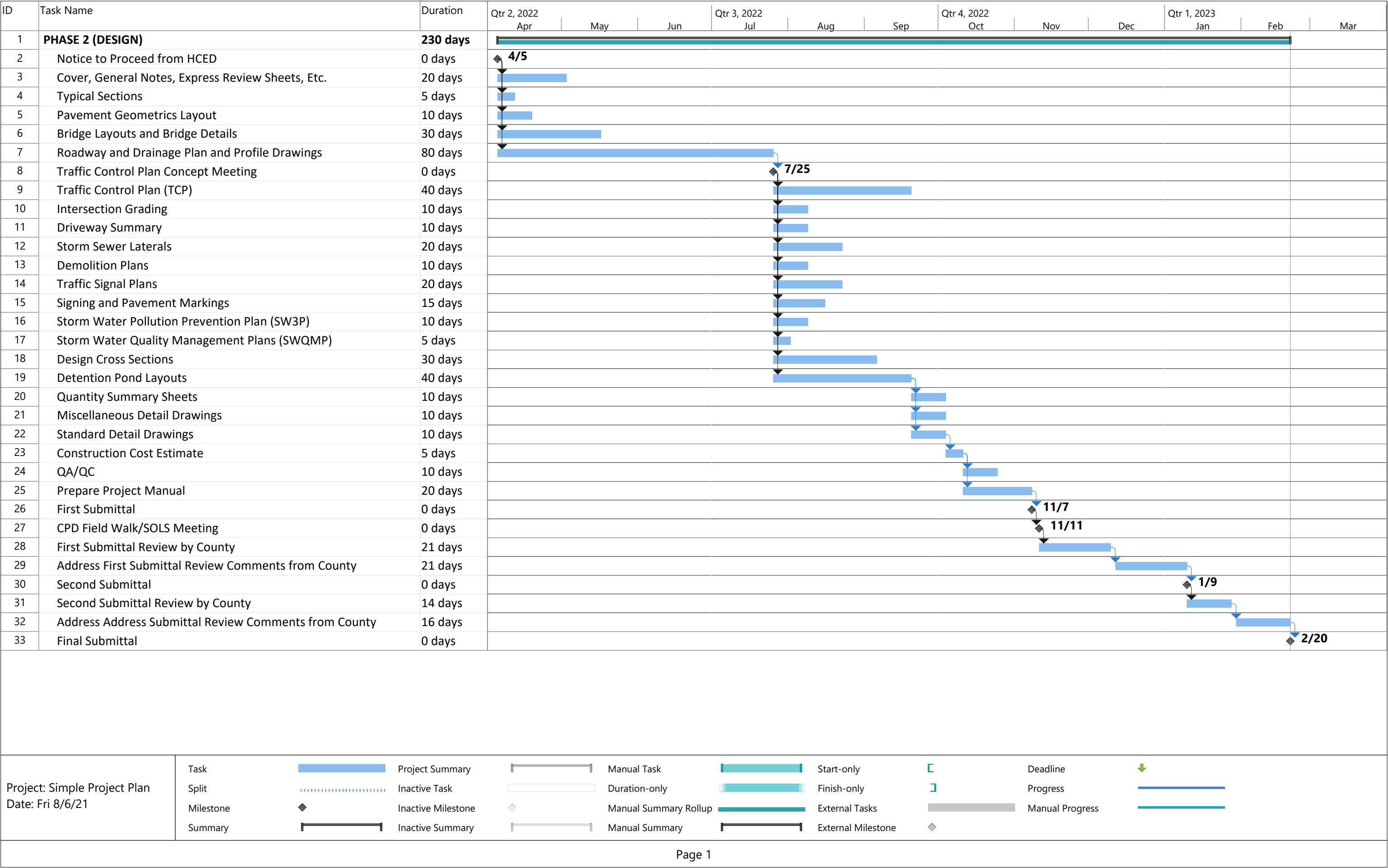
External Tasks

External Milestone

Deadline

Progress

Manual Progress



Page 1

"EXHIBIT C" - Compensation for Professional Services
Harris County Engineering Department
Peek Road From N. of Stockdick School Road to N. of Beckendorff Road
Precinct #3, UPIN 22103N301030006
Construction Cost Estimate: \$7,500,000

2.P	Pre-Design Phase		\$	199,352.00
3.P	Design Phase		\$	238,171.00
4.P	Bid Phase		\$	10,435.00
	Bridge (Structural)			
2B.301		Bridge Design	\$	109,351.00
2B.301C		Structural Coordination	\$	10,935.10
4B.303		Bid Phase	\$	2,608.00
4B.303C		Structural Coordination	\$	260.80
			\$	123,154.90
	Drainage			
2D.401		25% additional detention analysis	\$	-
2D.401C		Drainage Coordination	\$	-
2D.402		Drainage Letter	\$	12,480.00
2D.402C		Drainage Coordination	\$	1,248.00
2D.403		H&H Analysis	\$	85,300.00
2D.403C		Drainage Coordination	\$	8,530.00
			\$	107,558.00
	Environmental			
2E.500		Phase I ESA	\$	6,990.00
2E.500C		Environmental Coordination	\$	699.00
2E.501		Wetland Delineation and Approved Jurisdictional Determination	\$	12,380.00
2E.501C		Environmental Coordination	\$	1,238.00
2E.502		Threatened & Endangered Species Habitat Survey	\$	3,930.00
2E.502C		Environmental Coordination	\$	393.00
2E.503		Cultural Resources Desktop Survey	\$	2,010.00
2E.503C		Environmental Coordination	\$	201.00
			\$	27,841.00
	Geotechnical			
2G.600		Roadway - Report	\$	42,108.00
2G.600C		Geotechnical Coordination	\$	4,210.80
			\$	46,318.80
	Survey			
2S.700		Existing Right-of-Way Maps (Cat. 1B Condition II)	\$	41,900.00
2S.700C		Survey Coordination	\$	4,190.00
2S.701		Topographic Survey (Cat. 6 Condition II)	\$	61,520.00
2S.701C		Survey Coordination	\$	6,152.00
2S.702		Survey Control Map	\$	5,280.00
2S.702C		Survey Coordination	\$	528.00
			\$	119,570.00

Traffic

2T.805	Sight Distance Triangle Evaluation and Exhibits	\$	-
2T.805C	Traffic Coordination	\$	-
2T.806	All-Way Stop Warrant Study	\$	-
2T.806C	Traffic Coordination	\$	-
2T.807	Traffic Control Plan	\$	41,390.00
2T.807C	Traffic Coordination	\$	4,139.00
2T.808	Traffic Signal Warrant Study	\$	6,530.00
2T.808C	Traffic Coordination	\$	653.00
		\$	52,712.00

Subtotal Basic Services**\$ 925,112.70****Optional Additional Services including, but not limited to:**

2.P.150	Change Drawings	\$	20,000.00
3.P.251	Sidewalk	\$	-
3.P.252	Street Lights	\$	-
3B.351	Retaining Wall	\$	-
3D.451	Pond Design (\$4,000/acre)	\$	20,000.00
2D.451	CLOMR	\$	12,220.00
2D.451C	Drainage Coordination	\$	1,222.00
2E.551	Archeology Pedestrian Survey	\$	-
2E.551C	Environmental Coordination	\$	-
2E.552	Regional General Permit or Nationwide Permit	\$	8,640.00
2E.552C	Environmental Coordination	\$	864.00
2E.553	Stream Functional Assessment	\$	6,850.00
2E.553C	Environmental Coordination	\$	685.00
2E.554	Cultural Resources Field Survey	\$	13,580.00
2E.554C	Environmental Coordination	\$	1,358.00
2G.650	Detention Pond - Report (\$/acre)	\$	19,586.00
2G.650C	Geotechnical Coordination	\$	1,958.60
2S.750	Proposed ROW Maps (Cat. 1A, Cond. II.) (1 parcels @ \$3,100/parcel)	\$	3,100.00
2S.750C	Survey Coordination	\$	310.00
2S.751	Level A SUE (\$2,500/pothole)	\$	10,000.00
2S.751C	Survey Coordination	\$	-
2S.756	Boundary ROW Survey of Proposed Detention Pond (Land Title Survey)	\$	4,500.00
2S.756C	Survey Coordination	\$	450.00
2S.752	Topographic Survey- Detention Pond (Cat. 6, Cond. II.) (\$2,156/acre)	\$	10,780.00
2S.752C	Survey Coordination	\$	1,078.00
2SP.754	Encroachment Table	\$	-
2T.850	Traffic Signal Design	\$	33,960.00
2T.850C	Traffic Coordination	\$	3,396.00
Subtotal Optional Additional Services		\$	174,537.60

TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)**\$ 1,099,650.30**



EXHIBIT D: ENGINEER TEAM ACKNOWLEDGMENTS

1. The following is the group of providers selected to perform the obligations described in the Agreement.
2. If any firm listed below actively holds certification in any of the following categories, that information shall be identified in the table under "Special Designation" Box:
 - **MWBE** (Minority and Women Owned Business Enterprise)
 - **SBE** (Small Business Enterprise)
 - **HUB** (Historically Underutilized Business)
 - **DBE** (Disadvantaged Business Enterprise)
3. Also, all contract values must be identified in the table under "Contract Value".

Responsibility	Firm	Special Designation	Contract Value
Prime	Cobb, Fendley & Associates, Inc.		\$501,335.00
Surveying	Landtech, Inc.	MBE, DBE	\$108,700.00
Geotechnical	Geotest Engineering, Inc.	MBE, HUB, DBE	\$42,108.00
Environmental	SWCA Environmental Consultants		\$25,310.00
Traffic Engineering	Gunda Corporation	MBE, SBE, HUB	\$47,920.00
Drainage	KIT Professionals	MBE	\$97,780.00
Structural	Aguirre & Fields	MBE, HUB, DBE	\$111,959.00
Other- Optional Add'l Services		MBE, HUB, DBE	\$164,538.30

Percent of contract in dollars allocated to (MWBE, SBE, HUB or DBE) Consultants 52.11 %.

- The Engineer understands that it is solely responsible and liable to the County for the completion of all obligations under the Agreement.
- If the contract value of the subconsultant fee(s) are modified from the original amount, it must be approved by the Engineering Department's MWBE, SBE, HUB or DBE Compliance Officer.

ORDER OF COMMISSIONERS COURT

The Commissioners Court of Harris County, Texas, met in regular session at its regular term at the Harris County Administration Building in the City of Houston, Texas, on _____, with all members present except _____.

A quorum was present. Among other business, the following was transacted:

ORDER AUTHORIZING AGREEMENT BETWEEN HARRIS COUNTY AND COBB FENDLEY & ASSOCIATES, INC. FOR PROFESSIONAL ENGINEERING SERVICES

Commissioner _____ introduced an order and moved that Commissioners Court adopt the order. Commissioner _____ seconded the motion for adoption of the order. The motion, carrying with it the adoption of the order, prevailed by the following vote:

	Yes	No	Abstain
Judge Lina Hidalgo	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Rodney Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Adrian Garcia	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. Tom S. Ramsey, P.E.	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
Comm. R. Jack Cagle	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

The meeting chair announced that the motion had duly and lawfully carried, and this order was duly and lawfully adopted. The order adopted follows:

IT IS ORDERED that:

1. The Harris County Judge is authorized to execute the attached Agreement between **Harris County and Cobb Fendley & Associates, Inc.** for Professional Engineering Services. The attached Agreement, including any addendums, may be executed with an electronic or facsimile signature. The Harris County Engineering Department is authorized to request the Harris County Purchasing Agent to expend up to **\$1,099,650.30** in consideration of the work, products, services, licenses and/or deliverables provided under this Agreement.
2. The Harris County Engineering Department and all other Harris County officials and employees are authorized to do any and all things necessary or convenient to accomplish the purpose of this Order.