PROFESSIONAL SERVICES AGREEMENT

(Professional Engineering Services)

1. PARTIES

1.1 Parties. The Parties to this Professional Services Agreement ("Agreement") are **Infrastructure Engineering, 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 hire for Professional Engineering and related services to provide for roadway, storm sewer, and sidewalk improvements along Hafer Road from FM 1960 to Skywood Drive, located in Harris County, Precinct 1 ("Project"). This Project is also identified as UPIN 25101MF3N301.

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 for survey, design, and construction services of the Project, as further described in Exhibit A attached hereto.

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 1111 Fannin Street, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit the form by email to HCEDAdminSvcs@harriscountytx.gov.

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 1111 Fannin Street, 11th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit it by email to HCEDAdminSvcs@harriscountytx.gov.

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 Three Hundred Eighteen Thousand One Hundred Twenty-Three and 00/100 Dollars ($1,318,123.00)** 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 upon execution of all the Parties and end on the later date of (a) Project completion or (b) one year minus a day from execution of all the Parties.

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: Aaron Patterson
Vice President, Business Development
Infrastructure Engineering, Inc.
6117 Richmond Ave, Suite 200
Houston, Texas 77057-6267
Email: cdoss@infrastructure-eng.com

COUNTY: Dr. Milton Rahman, PhD, P.E., PMP, CFM, ENV SP
Executive Director & County Engineer
Harris County Engineering Department
1111 Fannin Street, 11th Floor
Houston, TX 77002
Email: AgreementInfo@harriscountytx.gov

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

INFRASTRUCTURE ENGNINEERING, INC.

By: _____
~~Aaron Patterson~~ Kashif J Khan
~~Vice President, Business Development~~ President

APPROVED AS TO FORM:

CHRISTIAN D. MENEFEE
Harris County Attorney

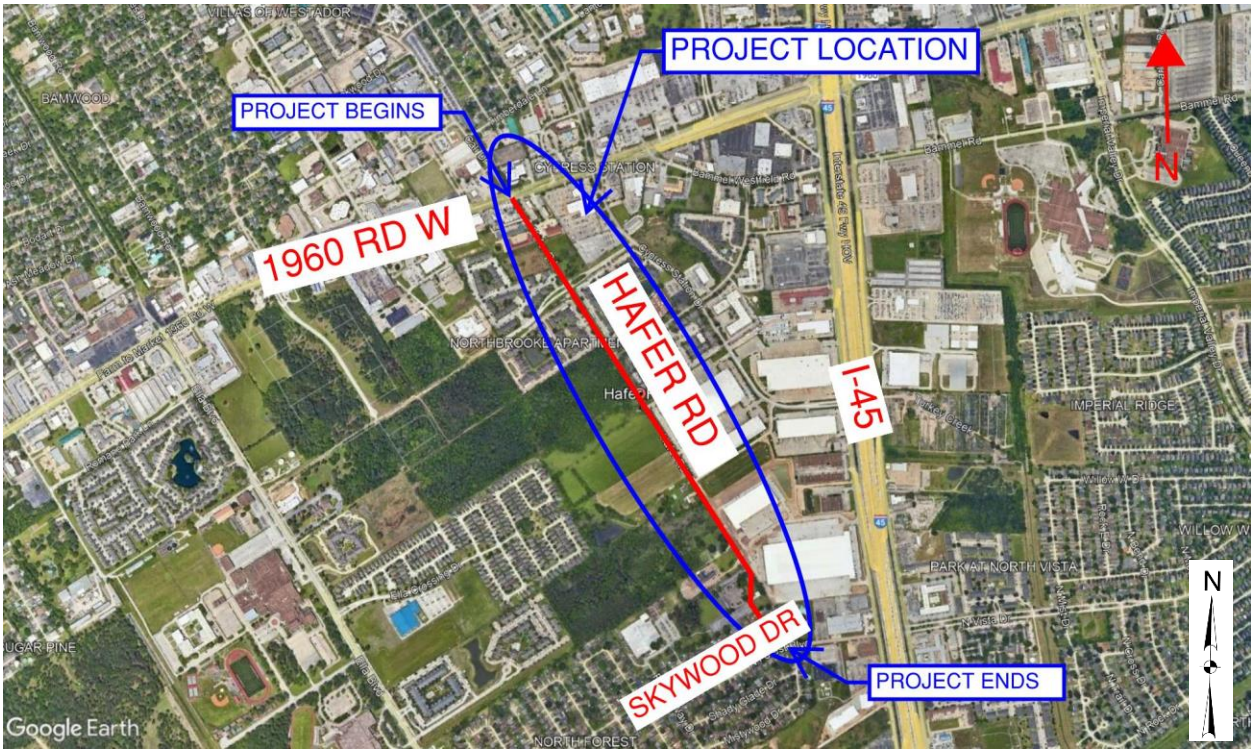
By: Paul M. La Raia
Paul M. La Raia
Assistant County Attorney
CAO File Number 25GEN1033

Project: Hafer Rd – Road Improvements
UPIN: 25101MF3N301

EXHIBIT A

SCOPE OF WORK

Road Name: *Hafer Rd (UPIN 25101MF3N301)*
Road Classification: Major Collector
Project Limits: *Hafer Road from FM 1960 to Skywood Drive*
Project Length: *approximately 5000 LF*
Precinct Number: *Precinct 1*
Adjacent/Affected Agencies: n/a
Project Description: The project scope includes full reconstruction of Hafer Road from FM 1960 to Skywood Drive (approximately 5000 LF).
Project Map:



Conditions:

	Existing	Proposed
Roadway Type	Asphalt	Concrete with curb and gutter
ROW Width	60 ft	60 ft
Travel Lanes	2-Lane	2-3 Lane (possibly includes two-way left turn lane in places)
Median Width	N/A	N/A
Cross Streets	FM 1960 Butterfield Rd Well Fargo Dr	FM 1960 Butterfield Rd Well Fargo Dr

Project: Hafer Rd – Road Improvements
UPIN: 25101MF3N301
EXHIBIT A

	Commerce Center Skywood Dr	Commerce Center Skywood Dr
Drainage System	Open Ditch	Storm Sewer
Outfalls	HCFCD #P145-03-03	HCFCD #P145-03-03
Detention Method	N/A	Detention Pond In-line Detention
Bridge	n/a	n/a
Traffic Signals	FM 1960	Butterfield Rd (Pending Warrant Study) FM 1960
Left Turn Lanes	n/a	Pending Study: Butterfield Rd FM 1960
Right Turn Lanes	N/A	Pending Study: Butterfield Rd FM 1960
Sidewalks or Trails	N/A	Pending Study: 6 ft wide WB and 10 ft EB from Skywood to FM 1960
Bike Lanes	N/A	N/A
Impacted Parcels	N/A	approximately 3
Railroad crossings	n/a	N/A
Pipeline Crossings	n/a	n/a

A. Project Management

Engineer shall provide the project management of the project from initiation to completion.

1. Coordination with Subconsultants

   Coordinate, monitor and manage the project Subconsultants per determined project duration. The Prime shall ensure all components in the Scope of Work are being met by monitoring progress and taking corrective action when necessary.

2. Schedule

   Provide a detailed project baseline schedule, indicating milestones, major activities and deliverables for HCED Project Manager to review and comment as part of proposal submittal. The schedule shall reflect assumed review times necessary by the agency/ies involved. During the execution of the project the Engineer shall maintain and update the schedule. Adjustments shall be made, if necessary, due to changing circumstances.

3. Invoices

   Engineer shall submit, in a format acceptable to HCED, invoices (including subconsultants) that detail all project costs based on percentage of completion for each task and submit to HCED by the end of the month.

4. Status Reports
   Prepare status reports of project progress and submit to HCED by the end of the month regardless of invoicing submittals.
5. Permits
   Engineer shall review, comment, and provide Interpose No Objection (INO) to development plans within the project limit. The purpose is to minimize the impact to both development plans and HCED project.
   Deliverables: Updated Project Schedule; Project Status Report, and Invoices; Interpose No Objection letters; Agreement Documents

2.P STUDY PHASE

The Study Phase shall consist of a series of Engineering studies and technical reports to support the Study Report. Engineer shall perform all Study Phase outlined tasks in accordance to all adopted Harris County standards, guidelines, and specifications.

The Scope of Work for the Study Phase:

A. Alignment/ROW Study
   Engineer shall evaluate alignment options using the current Harris County Geometric Design Guidelines. Engineer shall optimize their findings by evaluating alignment impacts to existing structures such as signals, utilities and property, environmental impacts, ROW acquisitions costs, and existing and impacts to existing and proposed drainage. The Engineer shall review specific scoping items for preparation of the Drainage Meeting at the end of the Alignment Meeting. A value analysis/Engineering of the top 3 options (if applicable) shall be presented to HCED at the Alignment Meeting.

   Once the alignment is approved, the Engineer may proceed with the Sight Triangle Analysis at all cross streets (refer to Traffic section).

   Alignment/ROW Meeting Deliverables:

- 34" Wide Roll Plot (Plan View at a 1” = 40’ scale) containing the following information:
  - Alignment alternatives with horizontal alignment data
  - Curve data on the schematic
  - Proposed planimetrics (back of curb, medians, median openings, turn lanes, etc.). All subject to change in the design phase.
  - Aerial photography
  - Existing ROW including utilities and easements.
  - Potential proposed ROW including corner clips, UVEs and detention basin footprint if applicable.
  - Proposed clearances to structures
  - Outfall structures and channel crossings
  - Typical section(s) of the proposed design
  - Construction cost estimate
- KMZ of project with alignment alternatives provided to HCED prior to the meeting.

- Meeting agendas, meeting minutes and action items for each meeting in electronic format submitted to HCED prior to distribution.

B. Drainage Study

Engineer shall evaluate and optimize various drainage design alternatives following the latest adopted Harris County Flood Control District guidelines and standards. Detention Ponds are to be considered as an option. With the selected alignment, a preliminary profile and the location and size of the storm sewer trunkline, if applicable, shall be developed. If the survey has not been authorized, then Engineer shall utilize LiDAR information to develop profiles. The Engineer may request available LiDAR information from HCED for the project limits. The Engineer shall present the Drainage Study during the Drainage Meeting and an option shall be selected at this meeting. The presentation shall include a value analysis/Engineering of the top 3 options, estimated construction and routine maintenance costs, ROW impacts, and public impacts. A drainage report shall be prepared according to current HCFCD PCPM Section 19 for the selected option.

The Drainage Meeting shall review the following design elements in preparation for the Drainage Report:

- Overall drainage area (existing and proposed)
- Preliminary trunk line sizing
- Preliminary ditch sizing
- Detention requirements (both in-line and offsite)
- Flood plain mitigation
- FEMA flood map review
- Critical utility conflicts
- Preliminary profile review

Deliverables at Drainage Meeting:

- 34" Wide Roll Plot (Plan View at a 1” = 40’ scale) containing the following information:
  - Proposed planimetrics (back of curb, medians, turn lanes, etc.). All subject to change in the design phase.
  - Aerial photography
  - Existing ROW including available utilities and other easements.
  - Potential proposed ROW including UVE, corner clips and detention basin footprint if applicable
  - Outfall structures (Existing and Proposed)
  - Location of proposed ditches
  - Location of storm sewer trunkline
  - Location(s) of potential detention sites
- Profile View
  - Existing roadway profile grade line (PGL)
  - Existing ROW profile grade lines
  - Outfall structures
  - Preliminary proposed PGL
- KMZ of project with drainage alternatives provided to HCED prior to the meeting.
- Meeting agendas, meeting minutes and action items for each meeting in electronic format submitted to HCED prior to distribution.

C. Initial Utility Coordination or Meeting

The purpose is to notify utility owners and begin the identification of any utility conflicts within the project limits. Per the survey data and the field visits, Engineer shall establish a Utility Conflict Table containing the following information at a minimum:

- Conflict number if applicable
- Station and offset if applicable
- Name of utility owner
- Contact information (name, address, phone, email)
- Type of utility
- Conflict type if available
- Anticipated date of conflict clearance if available

The Engineer shall provide the Preliminary Utility Conflict Table for review.

Utility Deliverables:

- 34" Wide Roll Plot (Plan View at a 1" = 40' scale) containing the following information:
  - Proposed planimetrics (back of curb, medians, turn lanes, etc.). All subject to change in the design phase.
  - Aerial photography
  - Existing ROW including utility easements
  - Potential proposed ROW
  - Proposed detention ponds
  - Outfall structures
  - Topographical survey data
  - Existing utilities (color coded) with potential conflicts identified
- Utility Conflict Table
- CADD Reference Files
- Meeting agendas, meeting minutes and action items for each meeting in electronic format submitted to HCED prior to distribution.

D. Study Report

a. Pre-Client Presentation: The Engineer shall present a draft of Client presentation to HCED for feedback.

Deliverables:

- 34" Wide Roll Plot summarizing all the data gathered in the previous meetings showing both plan and profile
- KMZ of project, including alignment, ROW, drainage, utilities, etc.
- Presentation (i.e. PowerPoint, Presi, Etc.)
- Handouts of the presentation

b. Client Presentation: The Engineer shall incorporate feedback received in the Pre-Client Presentation meeting.

Deliverables:

- 34" Wide Roll Plot summarizing all the data gathered in the previous meetings showing both plan and profile
- Presentation (PowerPoint, Presi, Etc.)
- Handouts of the presentation

c. Study Report: The Engineer shall document and summarize all project findings and provide the design objectives for the preparation of the Construction Contract Documents. The format should be a concise signed and sealed Study Report (typically 3 – 5 pages) with supporting information in the appendix including overall schematic, cost estimate, drainage report with INO Letter, environmental assessment reports, geotechnical report, traffic analysis, etc. The Engineer shall incorporate feedback received to obtain Commissioner's Court approval of Study Report.

Deliverables: Study Report

3.P DESIGN PHASE

The Engineer shall respond to comments provided by the County and shall prepare design deliverables as outlined below.

A. First Submittal
   1. Complete Plans ready to be sealed by a Professional Engineer
   2. KMZ of project, including alignment, ROW, drainage, utilities, etc.
   3. Cost Estimate
   4. Utility Conflict Table

   A Construction Field Walk Meeting will be held after the First Submittal.

B. Second Submittal and Third Submittal:
   1. Complete Plans sealed by a Professional Engineer
   2. KMZ of project, including alignment, ROW, drainage, utilities, etc.
   3. Cost Estimate (Excel)
   4. Attachment M
   5. SWPPP Binder with application reference number and password for access in STEERS
   6. Utility Conflict Table

C. Utility Signatures

   After the second submittal and before the final submittal. The Engineer shall obtain the standard utility signatures on Cover Sheet.

D. TCP Meeting

   The TCP shall be in accordance with engineering best practices, the guidelines of the TMUTCD, and HCED requirements. The purpose of this meeting is to discuss and agree upon the final construction sequencing, overall construction zone and the temporary drainage as needed. TCP meeting shall be held before the 1st Submittal.

Deliverables:

- 34" Wide Roll Plots (Plan View at a 1" = 40' scale) for each construction phase containing the following information:
  - Updated information from the TCP Deliverable at the ROW Meeting
  - Typical sections for each phase with Storm sewer trunkline
  - Proposed detention basin(s)
  - Outfall structures and utilities
  - Temporary construction easements
  - Callouts for major businesses, schools, churches, and other places of interest
  - Temporary pavement, channelization,
  - Legend
- Meeting Agendas, Meeting Minutes and Action Items for each meeting in electronic format submitted to HCED prior to distribution.
-

HCED shall continue coordination with other jurisdictional agencies including Harris County Flood Control District and the City of Houston in order to obtain approvals or required permitting.

4.P BID PHASE

The Engineer shall support Harris County during the bidding of the Project. Tasks include:

A. Attend the Pre-Bid Conference
B. Answer Bidder Questions
C. Issue addenda for clarifications to the plans and specifications
D. Evaluate bids and prepare a Recommendation of Award

The Engineer shall make every effort to prepare a complete PS&E to avoid using Bid Phase as the design extension.

Guidelines and Specifications

- *Regulations of Harris County, Texas for the Approval and Acceptance of Infrastructure, September 29, 2020* (or later version if applicable). This guideline is for the private development.*https://www.eng.hctx.net/Portals/23/Publications/Appr_Mods_HC_Infra_Subdiv_Reg.pdf*
- *Guidelines for Engineers having Engineering Contracts with Harris County, Texas for the Design of Roads and Bridges and the Preparation of Plans and Specifications October 10, 2023.* (or later version if applicable) *http://www.eng.hctx.net/Portals/22/Publications/capital-improvements/guidelines/1988-Guidelines-repro-PDG.pdf*
- *The Texas Manual on Uniform Traffic Control Devices http://www.txdot.gov/government/enforcement/signage/tmutcd.html*
- *Harris County Flood Control District Technical Manuals. https://www.hcfcd.org/Technical-Manuals/all-documents?folderId=8625&view=gridview&pageSize=10*
- *Harris County Public Infrastructure Department Storm Water Quality Guidance Document for New Development/Redevelopment Projects, April 4, 2004* (or later version if applicable) *http://www.eng.hctx.net/Portals/23/Publications/SWQ_manual_residential_devel.pdf*

- *Harris County Storm Water Management Handbook for Construction Activities* http://www.cleanwaterways.org/downloads/professional/construction_handbook_full.pdf
- *Harris County Storm Water Quality Management Regulations 2004* (or later version if applicable) http://www.hcpid.org/permits/docs/swq_regs.pdf
- *Right-of-Way Description and Alignment Map Guideline, October 1990* (or later version if applicable) http://www.eng.hctx.net/Portals/22/Publications/capital-improvements/guidelines/row_description_and_alignment_map_guidelines.pdf
- *Harris County Public Infrastructure Department Traffic Control Guidelines* http://www.eng.hctx.net/Portals/22/Publications/professional-services/standard-traffic/tcp_guidelines.PDF
- *Rules of Harris County, Including the Harris County Toll Road Authority, A Division of Harris County, and the Harris County Flood Control District for the Construction of Facilities Within Harris County and the Harris County Flood Control District Rights-of Way, October 1, 2020* (or later version if applicable) https://www.eng.hctx.net/Portals/23/Publications/Construction-in-HC-or-HCFCD-ROW-Regs.pdf

DRAINAGE

The drainage design shall be completed under the latest approved version of the guidelines of the HCFCD Policy Criteria & Procedure Manual.

Guidelines and Specifications

- *Harris County Flood Control District (HCFCD) Policy, Criteria and Procedures Manual (PCPM) Interim Guidelines and Criteria for Atlas 14 Implementation, July 2019 (or later version if applicable)*
- *HCFCD PCPM (July 2019 Interim Version), Appendix A-10 - Roadway Impacts and Mitigation Example*
- *HCFCD Memorandum dated October 21, 2019 – Roadway Detention Estimates with Atlas 14 Rainfall Updates, PCPM Appendix A, Example A.10.*
- *HCFCD Memorandum dated March 19, 2020 – Review of Conditional letters of Map Revision (CLOMRs) for Harris County Bridge Projects*
- *HCFCD Hydrology & Hydraulics Guidance Manual (HHGM), December 2009 (or later version if applicable).*
- *Other local references as applicable.*

2D.400 Drainage Report

All work shall be in accordance with Atlas 14 Data.

A. Data Collection and Coordination

1. Collect and review pertinent and available information on the project, any previous analyses and models, the project site, and the surrounding region. Obtain and review LIDAR topographic data from Houston-Galveston Area Council. Obtain and review as-built construction drawings of the project area. Review topographic survey and wetland data and obtain M3 Models of the watershed and available models of HCFCD Units if necessary.

2. Field Scoping Meeting – Visit the project site to observe and document the condition of drainage facilities and existing drainage infrastructure.
3. Coordinate as necessary with team members or other agencies including HCFCD Watershed Management Department to understand and address any additional or special requirements based on the project location.
4. Collect digital files of the hydrologic and hydraulic models, and any available previous study in the vicinity of project site. Obtain and review as built plans for the existing roadways in the vicinity of project site.
5. Determine the proper methodology to use for the project based on the complexity of the project and location in the watershed. Typical methodologies include the Rational Method, the Optional Project Routing Method, or the Watershed Modeling Method.

B. Pre-Project Conditions Analysis

1. Develop pre-project conditions drainage area map. Ensure offsite areas affecting the project are included in the analysis.
2. Calculate pre-project conditions impervious cover for drainage areas serving the project as well as offsite drainage areas that may affect the project.
3. Calculate pre-project time of concentration using velocity-based methods appropriate for the types of sheet flow and conveyance systems present in the pre-project condition.
4. Calculate peak flows the 2-, 10-, and 100-year storm events and the 500-year storm event if applicable (see HCFCD PCPM for when the 500-year calculation is necessary) at existing outfalls of the project site utilizing methodology appropriate for project scope and drainage area size.
5. Create a pre-project conditions hydrograph for each storm event at each outfall included in the analysis.

C. Post-Project Conditions Analysis

1. Modify pre-project drainage area map as necessary to reflect post-project conditions.
2. Calculate post-project conditions impervious cover for drainage areas serving the project offsite drainage areas that may affect the project. Treat the full ROW width as impervious cover for the drainage calculations.
3. Calculate post-project time of concentration using velocity-based methods appropriate for the types of sheet flow and conveyance systems present in the post-project condition.
4. Calculate peak flows for the post-project condition at the outfalls of the project site utilizing the same methodology and approach as the pre-project condition.
5. Create a post-project conditions hydrograph at each outfall included in the analysis for each storm event included in the analysis.
6. Calculate a preliminary estimate of floodplain fill that will be generated by the project using available topographic data.

D. Mitigation Alternatives

1. Estimate detention storage necessary at project outfall(s) by comparing pre- and post-condition hydrographs and adding floodplain fill mitigation volume if necessary.
2. Prepare a schematic layout of a minimum of three (3) distinct alternatives to provide the required detention storage to mitigate project impacts. Typical information includes mitigation footprint (basin, upsized pipes, LID, etc.), outfall size, total volume provided (minus freeboard requirement) and estimated right-of-way.
3. Prepare a draft Detention Alternatives client presentation (PPT) for review by HCED PM. Respond to comments and prepare final presentation.
4. Present alternatives and respond to Client comments.

E. Selected Alternative Analysis and Report

1. Based on Client selection, refine the mitigation estimate for the selected alternative by verifying assumptions included in the preliminary mitigation estimate, incorporating offsite sheet flow (if applicable), the proposed roadway profile, proposed conveyance (trunkline sewers/ditches, etc.), floodplain fill mitigation, and any other project condition in the analysis.
2. Route the post-project flows through the basin to fully design the basin outfall for the required storm events. Ensure that the analysis and layout of the basin meets HCFCD requirements and ensures no adverse impact from the project.
3. Prepare a preliminary drainage report for HCFCD review in accordance with HCFCD PCPM Section 19. Format report and all models and other attachments for electronic submittal via e-permits.
4. Respond to HCED and HCFCD comments and resubmit report as necessary to obtain report approval ("interpose no objection") from HCFCD.

Deliverable: Approved Drainage Report

2D.400 Optional Additional Services

A. Bridge Modifications or Replacement on FEMA Studied Stream

1. Obtain effective hydraulic model from HCFCD M3 system.
2. Obtain topographic survey cross-sections of the pre-project conditions in the vicinity of the bridge. Survey sections can extend from bank-to-bank with 2001 LiDAR (or additional survey data) extending the section in the overbanks. A minimum of four sections must be obtained - coordinate with HCFCD to determine if additional sections are necessary to fully model the proposed bridge in the effective model.
3. Create a duplicate effective HEC-RAS model, corrected effective HEC-RAS model (if necessary), and existing pre-project conditions HEC-RAS model. Ensure that the HEC-RAS model version is the same as the effective model.
4. Create a post-project HEC-RAS model using preliminary bridge layouts provided by the engineer. Ensure that minimum low chord requirements are met by the proposed bridge per HCFCD PCPM Section 7.2.1 or that exceptions to these requirements are warranted.
5. If impacts are noted in the post-project condition, create a mitigated post-project conditions model with appropriate mitigation requirements such as channel improvements that fully

mitigate the bridge in the effective (non-Atlas 14) 10-year, 100-year and 500-year effective storm events.

6. Provide a hydraulic analysis report detailing pre-project and post-project conditions and any necessary mitigation with preliminary bridge layouts included. This report can be incorporated into drainage report or as a stand-alone report).
7. Once the hydraulic analysis is approved, provide a Conditional Letter of Map Revision (CLOMR) package and all supporting documentation, and submit for Local Review.
8. Respond to CLOMR review comments and submit final package for Local Approval.

B. Bridge Modifications or Replacement on non-FEMA Studied Stream

1. Obtain topographic survey cross-sections of the pre-project conditions in the vicinity of the bridge as well as a sufficient distance downstream and upstream of the bridge to adequately describe conditions in the vicinity of the proposed project. Survey sections can extend from bank-to-bank with LiDAR or other topographic data extending the sections in the overbanks. A sufficient number of cross-sections must be obtained downstream of the bridge so that backwater effects of downstream conditions on the bridge locations can be included in the model. Upstream sections must also be included to identify any upstream impacts of the revised or new bridge structure. Coordinate with HCFCD to verify the extent and spacing of cross-sections necessary to fully model the proposed bridge.
2. Develop Atlas 14 flows for the 2- 10-, and 100-year storm events to insert into the hydraulic model at key locations upstream and downstream of the bridge as necessary to develop an accurate estimate of peak flows affecting the proposed project. Depending on the nature of the channel, Site Runoff Curves, HEC-HMS, or other methods may be used to calculate these flows.
3. Create an existing pre-project conditions HEC-RAS model using the cross sections and flows calculated.
4. Create a post-project HEC-RAS model using preliminary bridge layouts provided by the engineer. Ensure that minimum low chord requirements are met by the proposed bridge per HCFCD PCPM Section 7.2.1 or that exceptions to these requirements are warranted.
5. If impacts are noted in the post-project condition, create a mitigated post-project conditions model with appropriate mitigation requirements such as channel improvements that fully mitigate the bridge in the effective (non-Atlas 14) 10-year, 100-year and 500-year effective storm events.
6. Provide a hydraulic analysis report detailing pre-project and post-project conditions and any necessary mitigation with preliminary bridge layouts included. This report can be incorporated into drainage report or as a stand-alone report).

2D.400C – 454C Drainage Coordination

Engineer shall coordinate with the drainage provider for the completion of the Drainage Report.

ENVIRONMENTAL

Assumptions/Exclusions

1) **All environmental services detailed in this scope of work will not commence until the location and exact limits of the detention basin are determined. It is assumed that the size of the detention basin would not exceed 7.6 acres.**
2) **Prior to commencing environmental studies, the Client will review and approve a Google Earth kmz file that encapsulates the limits of any potential ground-disturbing activity. This file will be utilized as the limits for all environmental studies.**
3) **The size of the final Client-approved environmental study limits will not exceed 17.7 acres by more than 5%.**
4) **If any additional tasks not specified in this proposal are required to be completed, ENGINEER will provide a separate cost estimate to the Client and seek written authorization prior to beginning the work.**

2E.500 Phase I Environmental Site Assessment (ESA)

Environmental Professionals shall perform a Phase I Environmental Site Assessment (ESA) for the existing and proposed ROW, including detention pond sites and outfalls. The Phase I ESA shall be in accordance with current ASTM standards. The ESA shall determine whether known or possible contamination might be in the project area and encountered during construction.

Deliverable: Phase I ESA Report
Exclusions: No chain of title or environmental lien search will be obtained for this project, unless specifically requested by the client. If requested, additional fees will be necessary.

2E.501 Wetland Delineation and Approved Jurisdictional Determination

Biologists shall prepare a Wetland Delineation Report for the proposed ROW, detention pond sites, channel improvements, and outfalls. Project area shall be delineated using the 1987 Corps of Engineers Wetlands Delineation Manual, Atlantic and Gulf Coastal Plain Regional Supplement, and appropriate Regulatory Guidance Letters (RGLs). Field data shall be collected following the current USACE - Galveston District's Standard Operating Procedures concerning global positioning system (GPS) surveys. Non-wetland waters (e.g., streams, bayous, drainage channels, etc.) shall be identified and delineated by locating the ordinary high-water mark or the high tide line. HCED will submit the delineation report to the USACE for verification and jurisdictional determination. Field verification of the wetland delineation report may be required by USACE. A Wetland Biologist will attend this field meeting with USACE and HCED, and make report revisions as directed by the USACE PM.

Deliverables: Wetland Delineation Report; AJD Forms; Shape Files,

2E.502 Threatened & Endangered Species Habitat Survey

Biologists shall evaluate the proposed project area to determine whether it contains any habitats suitable to support federally or state listed threatened and endangered (T&E) species. Prior to going into the field, the biologist shall review U.S. Fish & Wildlife Service's Information for Planning and Consultation (iPaC) and Texas Parks and Wildlife's Rare, Threatened, and Endangered Species of Texas to

determine habitat needs. No species-specific presence/absence surveys are proposed as part of this scope of work.
Deliverables: Threatened/Endangered Species Habitat Assessment Report
Exclusions: *Species of Greatest Conservation Need will not be evaluated as part of the report.*

2E.503 Cultural Resources Desktop Analysis
Professional Archeologists shall conduct background review identifying recorded historical and archeological sites within and around the project corridor-based records obtained from the Texas Archeological Research Laboratory (TARL) and the Texas Historical Commission (THC). All archeological properties listed on the National Register of Historic Places (NRHP) and the State Archeological Landmarks (SAL) shall be identified. The background review shall include recommendations regarding the need for an intensive cultural resources survey. HCED will submit the CR Desktop Survey to THC for review and concurrence.

Deliverables: Cultural Resources Desktop Analysis; Constraints Map

E.500C – 564C Environmental Coordination
Engineer shall coordinate with environmental provider to complete the tasks, which shall be included in the Study Phase Report or Design Plans.

GEOTECHNICAL

2G.600 Roadway – Report

A. Field Investigation
   1. Submit soil boring layout for approval.
   2. Obtain utilities clearance for all the boring locations.
   3. Provide all traffic control, labor, and equipment for the Traffic Control Plan (TCP) while performing field services in compliance with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices" and HCED Standards.
   4. Core the existing pavement and determine the existing pavement thickness at selected locations.
   5. Drill and sample:
      i. ***10*** soil borings each to a depth of 25 feet for the proposed roadway and utilities
      ii. ***10*** soil borings each to a depth of 30 feet for the proposed detention pond.
      iii. For additional requirements for storm sewer and other infrastructure refer to Guidelines for Consultants Performing Geotechnical Investigations (https://www.eng.hctx.net/Portals/33/Publications/capital-improvements/guidelines/HCGeotechGuide20151109.pdf).
   6. Install ***2*** piezometers to the depth of 30 feet to monitor steady state water level measurements in the detention pond area.
      i. Read at least 24 hours after initial installation and periodically during 30 days after installation.
      ii. Piezometers should be spaced no farther than 2,500 feet apart along underground utilities where water-bearing layers (or potentially water-bearing layers) are encountered, unless

otherwise recommended by the geotechnical Engineer and approved by the County Engineer.

iii. Abandon in accordance with Texas Commission on Environmental Quality (TCEQ) when they are no longer necessary.

7. Grout all boreholes, except piezometer borings, using non-shrink cement bentonite grout after completion of drilling and water level measurements. The use of cement bentonite grout shall eliminate the potential problems and safety hazards associated with surface settlements that might occur if boreholes are backfilled with soil cuttings.
   i. In the case of borings through pavements, similar or equivalent materials should be used to restore the site. Backfilling of borings and sealing off piezometers should be conducted by using non-shrink grout placed with a tremie pipe.

B. Laboratory Testing

1. Laboratory testing should be conducted in general accordance with the corresponding ASTM standards.
2. Perform laboratory tests on selected representative soil samples to determine Engineering properties of the soils and to select design soil parameters.
3. Perform Engineering analyses to develop geotechnical recommendations including final and temporary pavement recommendations including subgrade stabilization requirements.
4. Perform Engineering analyses to develop geotechnical recommendations for utilities replacement, including excavation stability, bedding and backfill, groundwater control, and construction considerations.

C. Roadway and Detention Pond area

1. Perform Engineering analyses to develop geotechnical recommendations including pavement thickness and subgrade stabilization requirements.
2. Perform engineering analysis to develop recommendations for safe slopes and construction consideration for detention pond area.

D. Desktop Geological Fault Study

1. Review of available existing fault maps and a field visit to identify any significant visual fault activity along the project alignment or at the specific project site that may have an impact on the design of the project.

E. Report

1. Submit a final geotechnical report in accordance with HCED Guidelines and HCFCD guidelines.

Deliverables: Geotechnical Report

G.650 Detention Pond – Report

Borings drilled for channels should be drilled at a maximum spacing of 750 feet unless otherwise approved by HCFCD. A minimum of five borings should be drilled for the first five acres of a detention basin site and additional boring should be drilled for each additional five acres for detention basin sites. Detention basin sites smaller than five (5) acres in area shall have one (1) boring per acre with a minimum of two (2) borings. It shall not be necessary to perform a Geotechnical Investigation for channels or basins that are less than five feet deep.

Deliverables: Updated Geotechnical Report

G.653 Phase I Fault Study

A. Perform in accordance with current HGS guidelines.
B. Consist of a detailed literature review, a remote sensing study with examination of historical aerial photographs (including LiDAR and false color infra-red imagery), a study of subsurface geologic structure maps, topographic maps, and a detailed field reconnaissance.
C. Determine the likelihood of a surface fault impacting the project
D. Delineate fault on a map

Deliverables: Phase I Fault Study Report

G.600C – 653C Geotechnical Coordination

Engineer shall coordinate with the geotechnical provider for the completion of the Geotechnical Report, which shall be included in the Study Phase Report or Design Plans.

SURVEY

All surveying activities and deliverables performed by and or for Harris County Engineering Department (HCED) shall be performed in accordance with the most current laws and minimum standards of practice as promulgated by the Texas Board of Professional Engineers and Land Surveyors (TBPELS). This document shall not reduce or minimize state laws in any way. TBPELS minimum standards of practice shall be applicable wherein this document does not cover scoped work.

The Texas Society of Professional Surveyors (TSPS) developed the Manual of Practice for Land Surveying in the State of Texas, which has long been identified and accepted as the standard level of care for Land Surveying in the State of Texas. Furthermore, the TSPS Manual has developed various categories of Land Surveying, identifying standards and specifications for each. The TSPS manual can be found here: https://www.tsps.org/page/eManualofPractice.

2S.700 Existing Right-of-Way Maps (Cat. 1B, Cond. 3)

A. Provide deed research to determine existing rights-of-ways throughout the project routes.
B. Tie in property corners and block corners to define the existing rights-of-ways.
C. Prepare right-of-way map of the existing right-of-way in accordance with TSPS Category 1B, Condition 3 standards and conform to Harris County Standards.

Deliverables: Signed, sealed, and dated right-of-way map of the existing rights-of-ways; Title reports

2S.701 Topographic Survey (Cat. 6, Cond. 1)

A. Perform topographic survey for *7,300* linear feet with all intersections along this route, and for additional side streets as noted:
   i. *Skywood Dr.*
   ii. *Commerce Center*
   iii. *Casa Paz Apartments Dr.*
   iv. *Wells Fargo Dr.*

v. *Butterfield Road*

B. Survey to include 25 feet outside of the right-of-way and up to 60 feet outside right- of-way for objects (obstructions and improvements), except those that are behind brick walls and buildings, when possible.
C. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.
D. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.
E. Locate Ornamental trees or Landscape trees with a diameter of 4" and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.
F. Provide SUE Level C per ASCE SUE Guidelines
    i. Perform Texas One Call for underground utility locations to mark utilities within the existing right-of-way and existing easements within the take area.
    ii. Locate markings provided by One-Call and "visible" utilities within 25 feet of the proposed and or existing right-of-way.
    iii. Include locations of electrical risers as a CAD callout and layer in the survey deliverable.
G. Provide SUE Level D per ASCE SUE Guidelines
    i. Obtain utility maps from Comcast, CenterPoint Energy, AT&T and other utility owners.
    ii. Obtain utility maps from other utilities not limited to waterline, sewer, MUD, pipelines
H. All CAD linework will follow the APWA Uniform Color Code.
I. Locate utility markings or test holes provided by SUE providers.
J. Locate soil borings (Generally not required unless requested by HCED PM).
K. Provide all traffic control, labor, and equipment for the Traffic Control Plan (TCP) while performing field services in compliance with the regulations of the most recent edition of the "Texas Manual on Uniform Traffic Control Devices" and HCED Standards.
L. Prepare utility conflict table, to include risers.
M. Attend Field Topo Verification Meeting to visibly check that all topo items are currently located as per the field notes. Objectives to be achieved during the field topo verification meeting include impacts that could affect the alignment alternatives have on the Right of Way, existing structures such as signals, utilities, and property, environmental impacts and impacts to existing and proposed improvements.

Deliverables: Open Roads Designer file (. dgn format per EOR) along with ASCII point file, DTM with 1-foot contours and TIN file and XML file with break lines; 22"x34" 1" = 20' plan sheets for the topo field walk (6 copies)

2S.702 Control

A. Horizontal Survey Control shall be referenced to the Texas State Plane Coordinate System, South Central Zone, NAD83.
B. Vertical Control shall be based on the nearest existing Harris Reference Marker, NAVD 1988, 2001 Adj.
C. Provide adequate number of control points that are set and recoverable.

D. Request information from HCED for directions on tying controls to adjacent projects.

Deliverables: Survey Control Map and three-point sketches, signed and sealed by a Texas RPLS.

S.750 Proposed ROW Maps (Cat. 1A, Cond. 3)

Prepare parcel maps and metes and bounds descriptions. The parcel map shall be prepared as one parcel per map. (The map and M&B preparation checklist will be provided by HCED PM.)

Deliverables: Signed, sealed, and dated Parcel Map and Metes and Bounds; Signed, sealed, and dated revised Right-of-Way Map.

S.752 Topographic Survey – Detention Pond (Cat. 6, Cond. 1)

A. Cross sections shall be obtained at 100 feet intervals along the detention pond and shall extend 25 feet beyond the existing right-of-way lines and 60 feet for Structures as applicable.
B. Survey to include 25 feet outside of the right-of-way and up to 60 feet outside right- of-way for objects (obstructions), except those that are behind brick walls and buildings.
C. Establish elevations and locations of physical features including buildings, structures, signs, power poles, curbs, driveways, water meters, manholes, pedestals, ponds, light poles, etc. within the proposed and existing right-of-way. Overhead crossing utilities shall be limited to the low chord elevation.
D. Perform Texas One Call for underground utility locations to mark utilities within the existing right-of-way and existing easements within the take area.
E. Obtain utility maps from CenterPoint Energy and AT&T.
F. Locate markings provided by One-Call and “visible” utilities within 25 feet of the proposed and or existing right-of-way.
G. Provide pipe flow line elevations, size, material and directions of all sanitary sewer lines, storm sewer lines and driveway culverts. Top of rim or top of grate and flow line elevations shall be recorded on all inlets, manholes and drainage structures.
H. Locate Ornamental trees or Landscape trees with a diameter of 4” and larger shall be located. Wooded/brushed areas shall be limited to an outlined area only. No Individual Trees shall be located on natural vegetation areas.
I. Locate soil borings (Generally not required unless requested by HCED PM).
J. Horizontal control shall be referenced to the Texas Coordinate System, South Central Zone, North American Datum 1983 (2011 Adjustment) as processed against NGS CORS and Leica Smartnet Network.
K. Vertical control shall be established and referenced to the North American Vertical Datum (NAVD) 1988 (2001 adjustment) as established by local Harris County Reference Marks.
L. Establish survey baselines and temporary benchmarks.

Deliverables: Open Roads Designer file (.dgn format per EOR) along with ASCII point file, DTM with 1-foot contours and TIN file and XML file with break lines; 22”x34” 1” = 20’ plan sheets for the topo field walk; signed, sealed, and dated Control Maps with three-point reference drawings.

S.700C – D760C Survey Coordination

Consultant shall coordinate with the survey provider for the completion of the Surveying tasks, which shall be included in the Study Phase Report or Design Plans.

TRAFFIC

2T.800 Traffic Signal Warrant Analysis Study

TEI will conduct a Traffic Signal Warrant Analysis for the intersection of Hafer Road and Butterfield Road according to the TMUTCD and County standards and guidance. Existing turning movement counts will be collected at the intersection for 14 hours of a typical weekday to form the basis of analysis.

Existing traffic counts and projected opening day traffic volume projections shall be utilized in the Traffic Signal Warrant. The study will evaluate two conditions: the existing volume and geometry and the future build-out of the Butterfield Road connection between Hafer Road and Ella Boulevard.

A memo describing the analysis and findings will be developed for submittal to IEI. The first draft of the memo is anticipated to be submitted to IEI within 30 calendar days from Notice to Proceed.

Deliverables: Approved Traffic Signal Warrant Study

T.801 Signal Design

A. Flashing Yellow Analysis Memo

Based upon the results of the Traffic Warrant Study, prepare an analysis for installation of yellow flashing arrow for turning movements at the intersections where traffic signals are warranted. The Engineering study should be conducted to determine the appropriate left-turn signal control mode for signalized intersections. The study shall consider left-turn and right-turn volumes, crash history, 85th percentile (posted) speed, sight distance, number of left-turn lanes, number of opposing through lanes, pedestrian volumes, opposing through volumes, and intersection geometry. The results and recommendations shall be summarized in a memo to be included as an addendum to the Traffic Warrant Study.

B. Design Plans

- Basis of Estimate
- Existing Conditions Layout
- Proposed Traffic Signal Layout including Wiring Chart
- Proposed Traffic Signal Elevations
- Permanent Signing & Pavement Markings
- Standard Drawing Details with design tables to be complete
  - Mast Arm Assembly Details (100 mph Wind Zone)
  - Mast Arm Foundation (100 mph Wind Zone)
  - Luminaire Arm Details (100 mph Wind Zone)
  - Pedestrian Signal and Pole Installation Details
  - Traffic Control Plan sheet with table filled out for the posted speed limit.

C. Service outlet location and data statement from electrical provider

D. Field meeting at the 50% level. Provide Preliminary Signal Layout and signal pole calculations prior to meeting. Controller cabinet location to be finalized at 50% meeting.

Deliverables: Flashing Yellow Analysis Memo, Signal Plans, Service Outlet Location & Data Statement (SOLS)

T.802 Signal Rebuild Design

A. Flashing Yellow Analysis Memo

Based upon the results of the Traffic Warrant Study, TEI willprepare an analysis for installation of yellow flashing arrow for turning movements at the intersections where traffic signals are warranted. The Engineering study should be conducted to determine the appropriate left-turn signal control mode for signalized intersections. The study shall consider left-turn and right-turn volumes, crash history, 85th percentile (posted) speed, sight distance, number of left-turn lanes, number of opposing through lanes, pedestrian volumes, opposing through volumes, and intersection geometry.
Deliverables: Memo containing results of the flashing yellow analysis. The recommendations shall be summarized in a memo to be included as an addendum to the Traffic Warrant Study.

B. Design Plans
TEI will prepare full PS&E design documents on a survey base file provided by IEI for installation of the traffic signal hardware assembly at the intersection of Hafer Road at Butterfield Road. Design sheets will be prepared to current Harris County Engineering Department criteria and typical standards. The permanent signal plans will include the following sheets:

- Basis of Estimate
- Existing Conditions Layout
- Proposed Traffic Signal Layout including Wiring Chart
- Proposed Traffic Signal Elevations
- Proposed Pedestrian Curb Ramps
- Permanent Signing & Pavement Markings
- Standard Drawing Details with design tables to be complete
  - Mast Arm Assembly Details (100 mph Wind Zone)
  - Mast Arm Foundation (100 mph Wind Zone)
  - Luminaire Arm Details (100 mph Wind Zone)
  - Pedestrian Signal and Pole Installation Details
  - Traffic Control Plan sheet with table filled out for the posted speed limit.

Deliverables: Signal Plans for each design submittal.

C. SOLS from electrical provider
TEI will coordinate with CenterPoint Energy to obtain the electrical service outlet location and data statement (SOLS) for the proposed traffic signal. The statement will be submitted along with the 50% plans for review and approval.
Deliverable: Service Outlet Location and Data Statement

Field meeting at the 50% level. TEI will attend the 50% project field meeting and provide Preliminary Signal Layout and signal pole calculations prior to meeting. The controller cabinet location is expected to be finalized at 50% meeting.***Deliverables:*** Meeting Notes with findings from the field meeting.

<u>Project Assumptions</u>

1. Traffic counts (TMCs and ADTs) are included in the fee for Task T.800.

2. The submittals for the traffic signal design shall be at the 50%, 90%, and 100% complete levels within electronic PDF files. The 100% submittal will be the final deliverable plan sheets and associated quantity estimates.
3. This proposal does not include tasks for bid or construction phase services. An additional scope of services will be provided if needed.
4. Design of traffic signal and/or paving improvements at Butterfield Road and FM 1960 are not included in this proposal.

T.805 Sight Distance Triangle Evaluation and Exhibits

TEI will evaluate all intersections along the corridor and create exhibits that depict both 15' and 25' setbacks to evaluate need and area required for Unobstructed Visibility Easements (UVEs). At existing or proposed signalized intersections, sight triangles will also be used to evaluate for right turn on red. Exhibits for each study intersection will be created to illustrate the UVEs. Intersections to be included in the evaluation are:

- FM 1960 at Hafer Rd
- Butterfield Rd at Hafer Rd
- Wells Fargo Dr at Hafer Rd
- Commerce Center at Hafer Rd
- Skywood Dr at Hafer Rd .

Deliverables: Sight Distance Triangle Exhibits for the five intersections listed above.

T.810 Traffic Study

TEI will conduct a Turning Lane Analysis according to County standards and guidance included in NCHRP Report 348: Access Management Guidelines for Activity Centers. Analysis will be conducted at the following locations:

- Left turn lane analysis for Hafer Road at FM 1960
- Left turn and right turn lane analysis for Hafer Road at Butterfield Road

Existing turning movement counts will be collected at the two study locations for two hours each during the AM and PM peak periods. Additionally, a 24-hour automatic tube recorder count will be conducted to collect speed data.

Deliverable: Memo describing the analysis and recommendations will be developed for submittal to IEI. The first draft of the memo is anticipated to be submitted to IEI 30 days from Notice to Proceed.

VARIOUS

3V.903 TDLR

Register the project with Texas Department of Licensing and Regulation. Review plans and provide comments for adherence to Texas Accessibility Standards.

Deliverables: TDLR Project Number and review comments. Provide inspection prior to substantial completion.

3V.903C Various Coordination
Engineer shall coordinate with the TDLR provider for the completion of the tasks.

EXHIBIT B

Project Name	Hafer Rd - Road Improvements		
Consultant	Infrastructure Engineering Inc.		
UPIN NO.Project NO.	UPIN 25101MF3N301	Date:	2025-04-29

PROJECT SCHEDULE - STUDY PHASE

	TASK	PLANNED/ ACTUAL	Duration (Days)	Task Start	Task End	PLANNED Task Start Manual	PLANNED Task Start Auto w/Predecessor	Predecessor	Predecessor End	Float
	STUDY PHASE (PRE-DESIGN PHASE)	PLANNED	159	**6/2/2025**	**11/7/2025**					
		ACTUAL	1	1/0/1900	1/0/1900					
1	PRE-DESIGN KICK-OFF MEETING	PLANNED	0	6/2/2025	6/2/25					
		ACTUAL								
2	**PROJECT STUDY**	PLANNED								
		ACTUAL								
3	Right of Entry Request	PLANNED	0	6/2/25	6/2/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
4	Alignment Options	PLANNED	84	6/2/25	8/25/25		6/2/2025	1	6/2/2025	
		ACTUAL								
5	*Alignment Options Review/Updates	PLANNED	7	8/25/25	9/1/25		8/25/2025	4	8/25/2025	0
		ACTUAL								
6	Alignment Meeting	PLANNED	0	9/2/25	9/2/25		9/2/2025	5	9/1/2025	1
		ACTUAL								
7	Drainage Meeting	PLANNED	0	9/23/25	9/23/25		9/23/2025	18	9/19/2025	4
		ACTUAL								
8	Construction Sequence Meeting	PLANNED	0	9/9/25	9/9/25		9/9/2025	6	9/2/2025	7
		ACTUAL								
9	Right-of-Way Meeting	PLANNED	0	9/30/25	9/30/25		9/30/2025	38	9/26/2025	4
		ACTUAL								
10	Utility Coordination Meeting	PLANNED	0	9/20/25	9/20/25		9/20/2025	1	6/2/2025	110
		ACTUAL								
11	Pre-Client Meeting	PLANNED	0	10/31/25	10/31/25		10/31/2025	16	10/31/2025	0
		ACTUAL								
12	Client Presentation Meeting	PLANNED	0	11/7/25	11/7/25		11/7/2025	11	10/31/2025	7
		ACTUAL								
13	**STUDY REPORT**	PLANNED								
		ACTUAL								
14	Study Report Preparation	PLANNED	137	6/2/25	10/17/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
15	*Study Report Review/Approval	PLANNED	7	10/17/25	10/24/25		10/17/2025	14	10/17/2025	0
		ACTUAL								
16	Study Report CC Approval	PLANNED	7	10/24/25	10/31/25		10/24/2025	15	10/24/2025	0
		ACTUAL								
17	**Drainage**	PLANNED								
		ACTUAL								
18	**Drainage Report**	PLANNED	0	9/19/25	9/19/25		9/19/2025	20	9/19/2025	0
		ACTUAL								
19	Drainage Options	PLANNED	60	6/30/25	8/29/25		6/30/2025	1	6/2/2025	28
		ACTUAL								
20	Drainage Report Preparation	PLANNED	21	8/29/25	9/19/25		8/29/2025	19	8/29/2025	0
		ACTUAL								
21	*Drainage Report Review/Approval	PLANNED	7	9/19/25	9/26/25		9/19/2025	18	9/19/2025	0
		ACTUAL								
22	Additional Effort for 25% Increase in Detention/Mitigation Volume	PLANNED	0	9/26/25	9/26/25		9/26/2025	21	9/26/2025	0
		ACTUAL								
23	**Environmental**	PLANNED								
		ACTUAL								
24	Phase 1 ESA	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
25	*Phase 1 ESA Review/Approval	PLANNED	30	7/14/25	8/13/25		7/14/2025	24	7/14/2025	0
		ACTUAL								
26	Wetland Delineation and Approved Jurisdictional Determinination	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
27	*W.D. & A.J.D. Review/Approval	PLANNED	30	7/14/25	8/13/25		7/14/2025	26	7/14/2025	0
		ACTUAL								

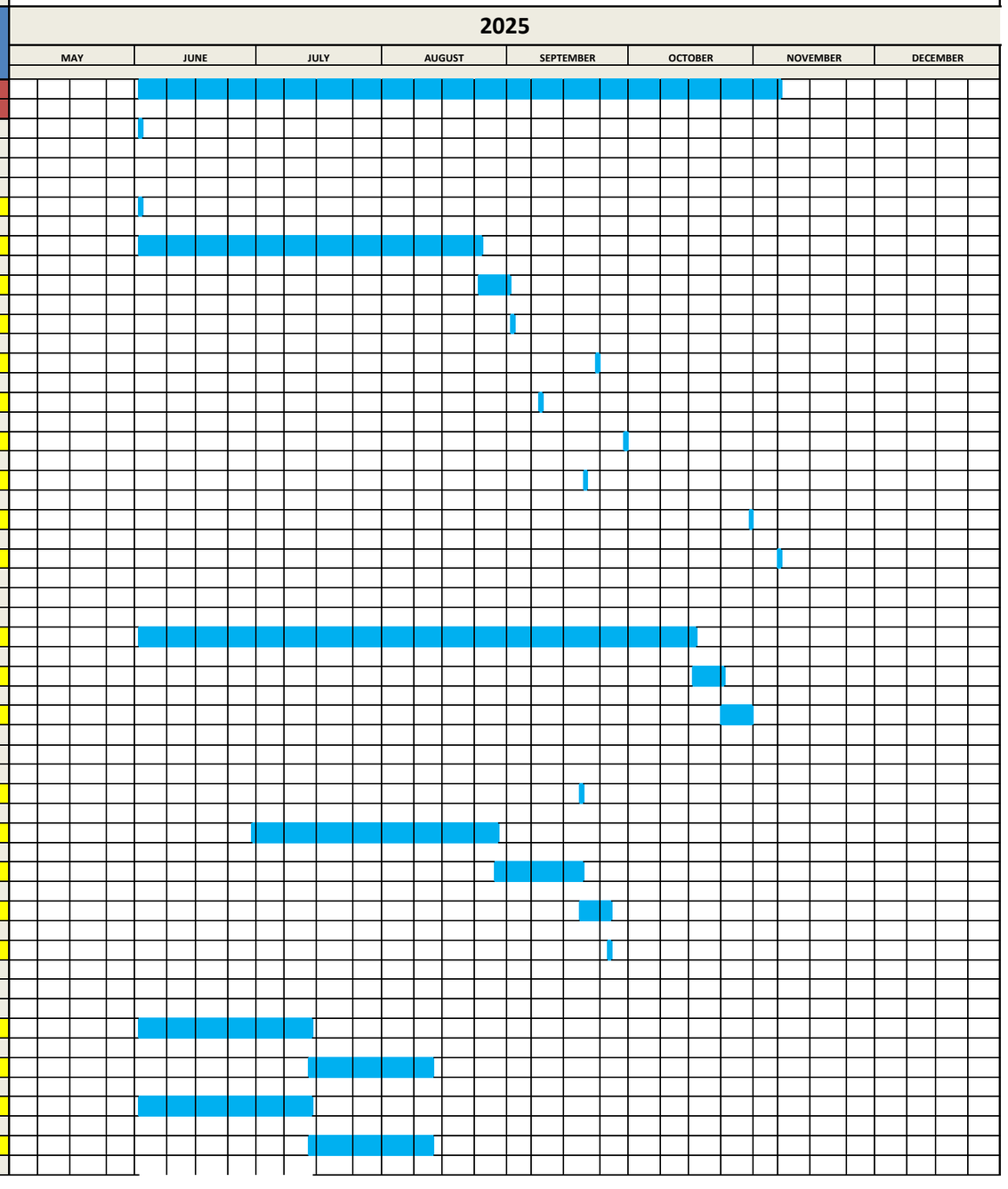


EXHIBIT B

Project Name	Hafer Rd - Road Improvements									PROJECT SCHEDULE - STUDY PHASE
Consultant	Infrastructure Engineering Inc.									
UPIN NO.Project NO.	UPIN 25101MF3N301	**Date:**	2025-04-29							

	TASK	PLANNED/ ACTUAL	Duration (Days)	Task Start	Task End	PLANNED Task Start Manual	PLANNED Task Start Auto w/Predecessor	Predecessor	Predecessor End	Float
28	Threatened and Endangered Species Habitat Survey	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
29	*T&E Review/Approval	PLANNED	30	7/14/25	8/13/25		7/14/2025	28	7/14/2025	0
		ACTUAL								
30	Cultural Resources Desktop Survey	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
31	*C.R.D.S. Review/Approval	PLANNED	30	7/14/25	8/13/25		7/14/2025	30	7/14/2025	0
		ACTUAL								
32	**Geotechnical**	PLANNED								
		ACTUAL								
33	**Geotechnical - Report**	PLANNED	70	6/2/25	8/11/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
34	Geotech Field Exploration	PLANNED	7	6/9/25	6/16/25		6/9/2025	1	6/2/2025	7
		ACTUAL								
35	Geotech Report Preparartion	PLANNED	35	6/16/25	7/21/25		6/16/2025	34	6/16/2025	0
		ACTUAL								
36	*Geotech - Report Review/Approval	PLANNED	7	8/11/25	8/18/25		8/11/2025	1	6/2/2025	70
		ACTUAL								
37	**Survey**	PLANNED								
		ACTUAL								
38	**Existing Right-of-Ways Maps**	PLANNED	7	9/19/25	9/26/25		9/19/2025	40	9/19/2025	0
		ACTUAL								
39	Boundary Survey (Ex ROW)	PLANNED	102	6/2/25	9/12/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
40	Ex ROW Maps Preparation	PLANNED	7	9/12/25	9/19/25		9/12/2025	39	9/12/2025	0
		ACTUAL								
41	*Ex ROW Maps Review/Approval	PLANNED	7	9/26/25	10/3/25		9/26/2025	38	9/26/2025	0
		ACTUAL								
42	**Topographic Survey**	PLANNED								
		ACTUAL								
43	Field Survey (Topo) + Controlled Survey	PLANNED	116	6/2/25	9/26/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
44	Topographic Survey Field Walk Meeting	PLANNED	7	9/26/25	10/3/25		9/26/2025	43	9/26/2025	0
		ACTUAL								
45	*Topographic Survey Review/Approval	PLANNED	7	10/3/25	10/10/25		10/3/2025	44	10/3/2025	0
		ACTUAL								
46	**Utilities**	PLANNED								
		ACTUAL								
47	One Call	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
48	Level C SUE	PLANNED	112	6/2/25	9/22/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
49	Level D SUE	PLANNED	42	6/2/25	7/14/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
50	**Proposed Right-of-Way Maps**	PLANNED								
		ACTUAL								
51	Boundary Survey (Prop ROW)	PLANNED	90	6/2/25	8/31/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
52	Proposed ROW Maps Preparation	PLANNED	5	8/31/25	9/5/25		8/31/2025	51	8/31/2025	0
		ACTUAL								
53	*Proposed ROW Maps Review/Approval	PLANNED	5	9/5/25	9/10/25		9/5/2025	52	9/5/2025	0
		ACTUAL								
54	Authorization of Metes & Bounds	PLANNED	5	9/10/25	9/15/25		9/10/2025	53	9/10/2025	0
		ACTUAL								
55	Design Survey	PLANNED	5	9/15/25	9/20/25		9/15/2025	54	9/15/2025	0
		ACTUAL								

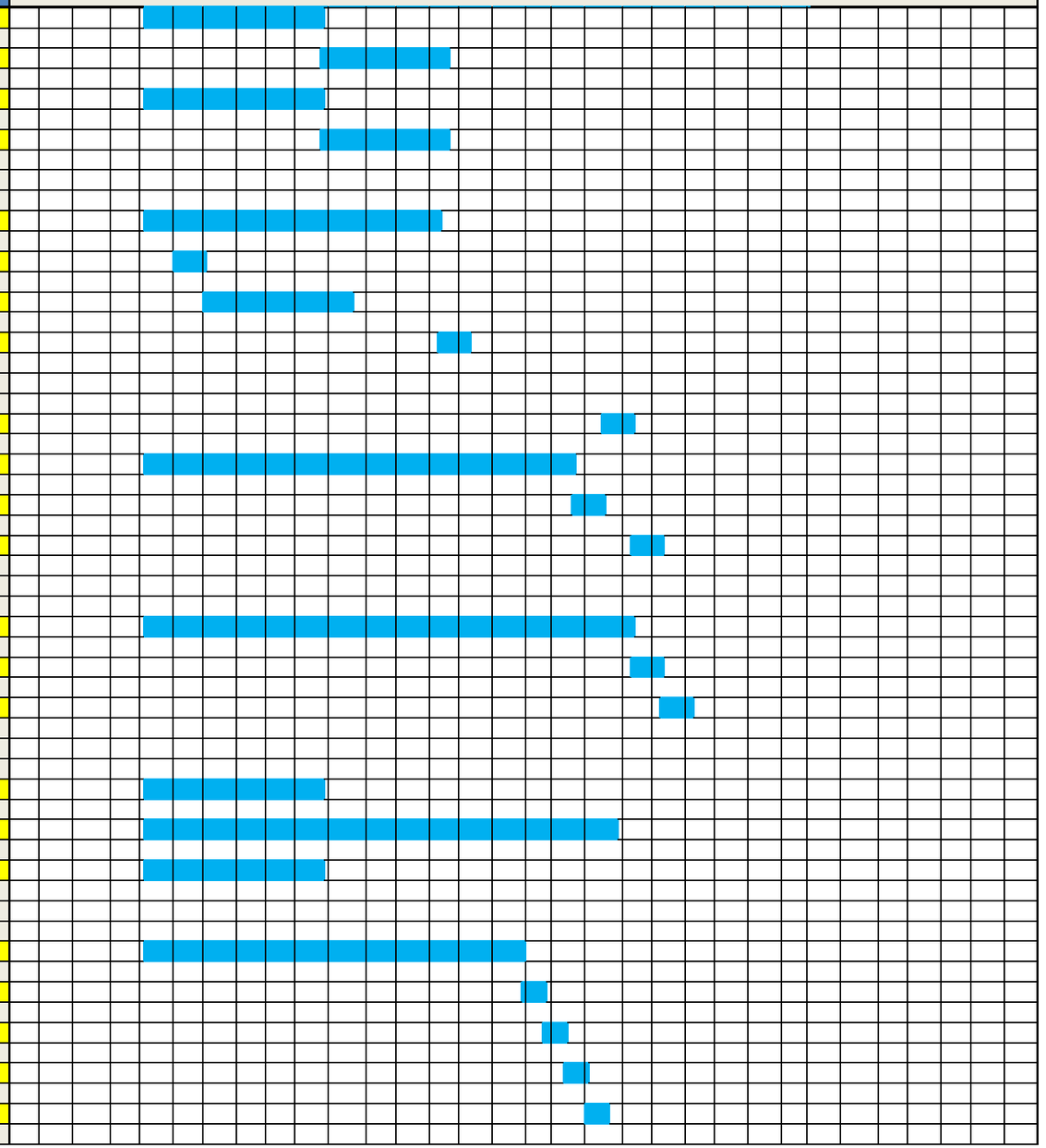
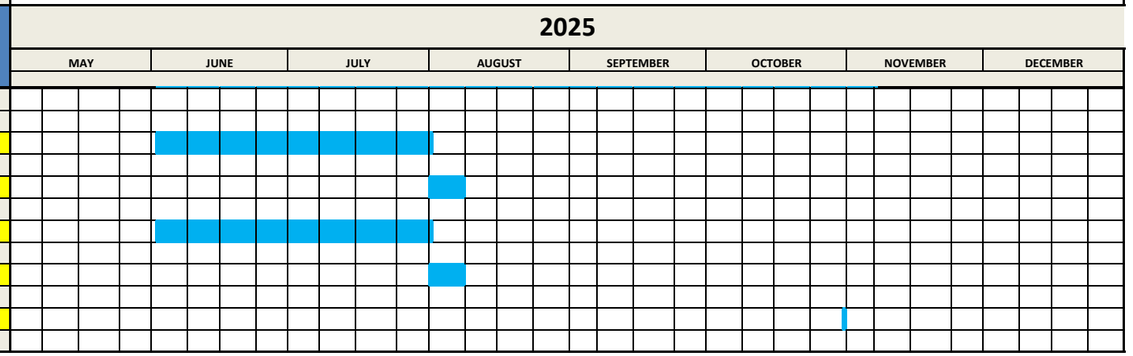


EXHIBIT B

Project Name	Hafer Rd - Road Improvements									PROJECT SCHEDULE - STUDY PHASE	
Consultant	Infrastructure Engineering Inc.										
UPIN NO.Project NO.	UPIN 25101MF3N301	**Date:**	2025-04-29								

	TASK	PLANNED/ ACTUAL	Duration (Days)	Task Start	Task End	PLANNED Task Start Manual	PLANNED Task Start Auto w/Predecessor	Predecessor	Predecessor End	Float
56	**Traffic**	PLANNED								
		ACTUAL								
57	Traffic Singal Warrant Analysis	PLANNED	60	6/2/25	8/1/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
58	*T.S.W.A. Review/Approval	PLANNED	7	8/1/25	8/8/25		8/1/2025	57	8/1/2025	0
		ACTUAL								
59	Sight Distance Triangle Evaluation and Exhibits	PLANNED	60	6/2/25	8/1/25		6/2/2025	1	6/2/2025	0
		ACTUAL								
60	*Sight Distance Triangle Exhibits Review/Approval	PLANNED	7	8/1/25	8/8/25		8/1/2025	59	8/1/2025	0
		ACTUAL								
61	Pre-Design Phase Completion	PLANNED	0	10/31/25	10/31/25		10/31/2025	16	10/31/2025	0
		ACTUAL								



Blue indicates original schedule.

Orange indicates actual schedule.

"EXHIBIT C" - Compensation for Professional Services
Project Name: Hafer Rd - Road Improvements
Project Limits: FM 1960 to Skywood Drive
UPIN: 25101MF3N301
Construction Cost Estimate: $14.13M

1	**Project Management**		$54,960.00
2	**Study / Pre-Design Phase**		$77,460.00
3	**Design Phase**		$695,284.00
4	**Bid Phase**		$4,998.00
		Subtotal (1-3):	**$832,702.00**
5	**Survey**		
	Existing Right of Way Maps (Cat. 1B Condition 3)		$33,880.00
	Topographic Survey (Cat. 6 Condition 1) - Roadway		$91,920.00
		Subtotal:	**$125,800.00**
6	**Geotechnical Report**		
	Roadway		$44,307.00
		Subtotal:	**$44,307.00**
7	**Environmental**		
	Environmental Site Assessment - Phase I		$11,780.00
	Wetlands Determination & Delineation		$18,560.00
	Cultural Resources		$6,620.00
	Threatened & Endangered Species		$6,840.00
		Subtotal:	**$43,800.00**
8	**Drainage**		
	Drainage Report		$66,727.00
		Subtotal:	**$66,727.00**
9	**Traffic**		
	Traffic Signal Warrant Study		$20,752.00
	Traffic Signal Design		$46,428.00
		Subtotal:	**$67,180.00**
Subtotal Basic Services (1-8):			**$1,180,516.00**
10	**Optional Additional Services**		
	Change Drawings		$20,000.00
	Survey - Topographic Survey (Cat. 6 Condition 1) - Pond		$45,350.00
	Geotechnical Report - Pond		$55,477.00
	Proposed ROW Maps (Cat. 1A, Cond. 3) - (Qty. 2 @ $4,340/Parcel)		$8,680.00
	SUE QLA (Qty. 2 @ $4,050/per pothole)		$8,100.00
		Subtotal:	**$137,607.00**
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)			**$1,318,123.00**

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)
   - HUB (Historically Underutilized Business)
   - DBE (Disadvantaged Business Enterprise)

3. Also, all contract values must be identified in the table under "Contract Value".

Responsibility	Firm	NAICS Code	Special Designation	Contract Value (M/WBE)	Contract Value (Non M/WBE)
Prime	Infrastructure Engineering Inc.	541 330	**MBE, DBE**	$825,152.00	
Surveying	RODS Surveying, Inc.	541 370	**MBE, WBE, HUB**	$187,930.00	
Environmental	Johnson, Mirmiran & Thompson, Inc.	541 330			$43,800.00
Traffic Engineering	Traffic Engineers, Inc. dba TEI Planning+Design	541 330			$67,180.00
Geotechnical	Geotest Engineering, Inc.	541 380	**MBE, DBE, HUB**	$99,784.00	
H&H	Huitt-Zollars, Inc.	541 330			$94,277.00
Total				**$1,112,866.00**	**$205,257.00**

Total Contract Value in dollars: **$1,318,123.00**

Percent of contract in dollars allocated to (MWBE, HUB, or DBE) Consultants: **84.43%**

☐ The Engineer understands that it is solely responsible and liable to the County for the completion of all obligations under the Agreement.

☐ A proposed decrease in the contract value for any MWBE, HUB, or DBE listed on this Exhibit must be approved by the Department of Economic Equity and Opportunity (DEEO).

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 INFRASTRUCTURE ENGINEERING, LLC
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	[ ]	[ ]	[ ]
Comm. Rodney Ellis	[ ]	[ ]	[ ]
Comm. Adrian Garcia	[ ]	[ ]	[ ]
Comm. Tom S. Ramsey, P.E.	[ ]	[ ]	[ ]
Comm. Lesley Briones	[ ]	[ ]	[ ]

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 **Infrastructure Engineering, LLC** 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 **$1,318,123.00** 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.