
AGREEMENT SUPPLEMENT

(Second Amendment to Professional Engineering Services Agreement)

1. PARTIES

- 1.1 **Parties.** The Parties to this Agreement Supplement ("Supplement") are **Pacheco Koch Consulting Engineers, 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 **Agreement Supplement Description.** On or about May 25, 2021, the County and Engineer entered into an Agreement for Professional Engineering Services (CAO File Number 21GEN1428, Purchase Order # HCNTY-0000035007) ("Agreement") to provide Drainage improvements to Humble Road Place and Parkland Estates Subdivisions located in Harris County Precincts 1 and 4 ("Project"). On or about September 14, 2021, the Parties amended the Agreement (CAO File Number 21GEN2288) to increase the limit of appropriations from a maximum appropriation of \$648,501.00 to \$1,061,899.00. The Parties have agreed that additional Professional Engineering Services is required to complete the Project. Therefore, the Parties desire to amend the Agreement a second time to increase the limit of appropriations from a maximum appropriation of \$1,061,899.00 to \$2,172,564.00 to fund the additional work (UPIN 21090MF22H01).
- 2.2 **Professional Engineering Services.** The professional services to be performed under this Supplement 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, for the respective professional services. The professional engineering services shall be performed in accordance with Tex. Occ. Code Ann. §§ 1001.001, et. seq, as amended.
- 2.3 **Professional Services Procurement Act.** The work 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. SPECIFIC SCOPE OF WORK/SERVICES AND/OR DELIVERABLES

- 3.1 **Specific work, products, services, licenses and/or deliverables.** Engineer shall provide any specified additional work, products, services, licenses and/or deliverables required to be provided by Engineer and as set out in this Supplement and all referenced attachments incorporated in this Supplement. 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.
- 3.2 **Certificate of Interested Parties Form 1295.** Engineer certifies that it has accurately completed and submitted a notarized Certificate of Interested Parties Form 1295 ("Form 1295") in accordance with Texas Government Code §2252.908 and the rules adopted thereunder. Engineer acknowledges that it is responsible for making any and all necessary updates and/or corrections to the applicable Form 1295 during the term of this Agreement. Engineer must either (1) mail the completed Form 1295 to the Harris County Engineering Department at 1001 Preston, 7th Floor, Houston, TX 77002, Attn: Administrative Services or (2) submit the form by email to HCEDAdminSvc@hcpid.org.

4. ADDITIONAL AND SPECIAL REQUIREMENTS

- 4.1 **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 Supplement and all questions as to the acceptable fulfillment of this Supplement 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 Supplement 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 Supplement. 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 Harris County Commissioners Court ("Commissioners Court") has authorized to be encumbered nor destroy the purposes of this Supplement. 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 Supplement ("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 Supplement, 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.

- 4.2 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.
- 4.3 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.

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

- 5.1 Payments/Compensation. For and in consideration of the work, products, services, licenses or deliverables provided under this Supplement and during the term of this Supplement, subject to the limitations in this Supplement, County shall pay Engineer in accordance with the fee schedule and rates specified in this Supplement, including in the Attachments up to the total maximum amount specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.2 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 ONE HUNDRED TEN THOUSAND SIX HUNDRED SIXTY-FIVE AND 00/100 DOLLARS (\$1,110,665.00)** to pay and discharge any and all liabilities that County may incur arising out of this Supplement. Any other provision notwithstanding, County shall never be liable to pay Engineer any greater amount under this Supplement than is specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.3 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.
- 5.4 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 Supplement 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 Supplement unless the County Auditor certifies additional funds.

6. INSURANCE

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

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

Employers' Liability

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

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

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

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

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

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

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

- (a) Be less than 12 months old;

- (b) Include all pertinent identification information for the Insurer, including the company name and address, policy number, NAIC number or AMB number, and an authorized signature;
- (c) Include the Project name and reference numbers and indicates the name and address of the Project Manager in the Certificate Holder Box; and
- (d) Be appropriately marked to accurately identify:
 - (i) All coverage and limits of the policy;
 - (ii) Effective and expiration dates;
 - (iii) Waivers of subrogation, endorsement of primary insurance and additional insured language, as described herein.

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

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

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

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

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

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

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

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

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

7. TERM OF THE SUPPLEMENT

7.1 Time Period. The time period for performance (Term) of this Supplement shall begin October 12, 2021, and end on the later date of (a) Project completion or (b) October 11, 2022.

8. TERMINATION PROVISIONS

- 8.1 Determination of Material and Non-Material Breaches. County Engineer shall determine whether a breach of this Supplement by either Party is material or non-material. County Engineer's determination shall be final and binding alike on all Parties.
- 8.2 Non-Material Breaches. If either Party refuses or fails to perform any of its non-material obligations in this Supplement, 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 Supplement immediately. HCED is authorized to give notice for County.
- 8.3 Material Breaches
- 8.3.1 Suspension. HCED may suspend this Supplement 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 Supplement. HCED is authorized to suspend on behalf of County.
- 8.3.2 Termination. The County may terminate this Supplement for a material breach at any time by notice in writing to the Engineer.
- 8.4 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 Supplement. The right to terminate for material or non-material breaches is in addition to and not in lieu of any other remedies.
- 8.5 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 Supplement. This statement or invoice must show in detail the unbilled/uninvoiced services performed for County under this Supplement 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.
- 8.6 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 Supplement on behalf of County. Within two (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 Supplement, 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 Supplement, 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.
- 8.7 Supplement Transition. In the event the Supplement ends by either expiration or termination prior to the end of its Term, the County may elect to name a replacement Engineer. Upon such occurrence, Engineer shall, at the request of the County, assist in the transition of Engineer's responsibilities under the Supplement. Engineer acknowledges its responsibility to cooperate fully with the replacement engineer and the County to ensure a smooth and timely transition. Such transitional period shall not extend more than ninety (90) days beyond the expiration/termination date of the Supplement, or any extension thereof.

During any transition period, all other terms and conditions of the Supplement shall remain in full force and effect as originally written.

9. INDEMNIFICATION

- 9.1 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 Supplement.

10. MISCELLANEOUS

- 10.1 All the terms of the attached Agreement that are not in conflict with the terms of this Supplement shall remain the same and shall apply to this Supplement.
- 10.2 Exhibit List. The following attachments are a part of this Supplement:
- Exhibit A-2. Scope of Services
Exhibit B-2. First Agreement Supplement and Original Professional Services Agreement
Exhibit C-2. Compensation for Professional Services
- 10.3 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 Supplement may be conducted by electronic means. Pursuant to these statutes, this Supplement may not be denied legal effect or enforceability solely because it is in electronic form or because it contains an electronic signature. This Supplement 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.
- 10.4 Signatory Authorized to Execute Supplement. The person executing this Supplement 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 Supplement on behalf of the Party.
- 10.5 Original Agreement Attached. The original agreement(s) being supplemented is/are attached.
- 10.6 Notices. Any notice required to be given under this Supplement ("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: Mark A. Pacheco, P.E., R.P.L.S.
President
Pacheco Koch Consulting Engineers, Inc.
20329 State Highway 249, Ste. 350
Houston, TX 77070-2623
Email: powens@pkce.com

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

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

[EXECUTION PAGE FOLLOWS]

HARRIS COUNTY

By: _____
Lina Hidalgo
Harris County Judge

PACHECO KOCH CONSULTING ENGINEERS, INC.

DocuSigned by:
D. Ryan Plasse
By: _____
D. Ryan Plasse, P.E., CFM
Principal & Director of Water Resources

APPROVED AS TO FORM:

CHRISTIAN D. MENESEE
Harris County Attorney

By: *Sahar Rabat-Torki* _____
Sahar Rabat-Torki
Assistant County Attorney
CAO File Number: 21GEN2764

EXHIBIT A-2- SCOPE OUTLINE FOR AGREEMENT

**Project Name: HUMBLE ROAD PLACE AND PARKLAND ESTATES SUBDIVISIONS
DRAINAGE IMPROVEMENTS – 2018
PRECINCT FOUR (4), UPIN: 21090MF22H01**

GENERAL LOCATION

This project is located in the North-East Houston area, in the proximity of the US-59 and Beltway 8 Interchange. Humble Road Place subdivision is located within the Precinct 4 boundaries, whereas Parkland Estates lays within the Precinct 1 limits and both subdivisions are part of the Greens Bayou Watershed. The northern part drains into P133 and the southern part into P100.

EXISTING CONDITIONS

Existing conditions are described in our original contract for Study Phases 1 and 2 to which this proposal is an addendum.

PROFESSIONAL SERVICES (Change)

Pacheco Koch Consulting Engineers, Inc. (consultant) will provide Study, Design and Bid Phase engineering services for this Project. Engineering services shall be performed in accordance with Harris County Engineering Department (HCED) & Harris County Flood Control District (HCFCD) Standards and Guidelines and utilize Harris County Engineering Department Standards and Specifications. All design works shall conform to Harris County Engineering Department (HCED) Standards except in rights-of-ways and/or easements owned by other agencies, where it shall conform to other agency standards upon agreement by HCED.

Pacheco Koch Consulting Engineers, Inc. will perform study, design and bid phase in five stage process. This contract will facilitate Stages 3-5 of the Design process and includes Project Management and Final Design services with 60%, First Submittal (90%), and Final (100%) plan sets. This is the second amendment to our original contract for the Study Phase.

Stages 3-5 - Design includes Project Management and Detailed Design in two phases. Both phases will be limited to \$20M construction costs. This also includes a sub-consultant for Structural Engineering.

Consultants are to provide a lump sum fee breakdown for Services down to the second level in the outline (i.e., provide fees down to 1.a Deliverables) and sum for each phase (i.e., Study, Design, Bid etc.). The fee structure shall be reported in conformance with Exhibit C (Compensation of Professional Services) in the Agreements.

This project is designed in two phases resulting in two separate plan sets and construction contracts. The two phases are essentially divided by the railroad. The Phase 1 project is all improvements east of the railroad which include the outfall to P133, the detention basin and the storm trunk system up to the railroad. The Phase 2 project includes the bores under the railroad linking to the Phase 1 project and all improvement west of the railroad.

1. **Study and 30% Design Phase (No Change)**
2. **Detailed Design Phase – PM and Final Design (Change)**
 - A. **Project Management**
 - i. Administration
 - ii. Coordinate Subconsultants
 - iii. Develop and Maintain Project Design Schedule (Stages 3-5)
 - iv. Attend bi-weekly coordination meetings
 - v. Prepare monthly status reports
 - vi. Attend review meetings
 - vii. Coordination and Communication w/Stakeholders
 - viii. Utility Coordination
 - B. **Detailed Design in Two Phases**
 - a) 60% Design Submittal (Phases 1 and 2)
 - i. Title Sheet
 - ii. Index of Sheets
 - iii. Project Layout
 - iv. Clearing and Grubbing
 - v. Typical Sections
 - vi. Drainage Area Map
 - vii. Drainage Calculations
 - viii. Drainage Plan & Profiles
 - ix. Ditch Cross Sections
 - x. Driveway Culvert Summary Table
 - xi. Detention Grading Plan (Phase 1 only)
 - xii. Water Relocation P&P
 - xiii. Existing Site Utility Layout
 - xiv. Utility Conflict Table
 - xv. Traffic Control Plans
 - xvi. Project Detail Sheets
 - xvii. Harris County Engineering Express Review Sheet
 - xviii. Harris County Flood Control Express Review Sheet
 - xix. Opinion of Probable Cost
 - xx. Submit 60% plan sets
 - xxi. Submit Subconsultants work
 - xxii. Client Presentation
 - b). First Submittal (90% Design, Phases 1 and 2)
 - i. Address 60% comments, complete design and OPCCs

- ii. Prepare Project Manuals (Attachments L & M, and CIVCAST Bid Sheet)
- iii. Submit Bid-Ready Plan Sets including SWPPP
- c). Final Plan Submittal (100% Design, Phases 1 and 2)
 - i. Address 90% Comments, Complete Design and OPCCs
 - ii. Address 90% Comments and Prepare Project Manuals
 - iii. Submit Final Sealed Plan Sets

C. Deliverables

- i. 60% Design Plans in two phases with separate OPCCs
- ii. Client Presentation
- iii. First Submittal Plans (90%)
 - a. Complete Plan Set
 - b. Project Manuals
 - c. Attachments L & M
 - d. Report File (SWPPP)
- iv. Final Plans (100%)
 - a. Cost Estimate and CIVCAST Bid Sheet
 - b. Permitted Plan Set
 - c. Attachments L&M
 - d. Report File (SWPPP)

3. Bid Phase (Change)

A. The following describes the scope for Bid Phase Services

- i. Attend Pre-bid Meeting, document notes
- ii. Respond to contractor inquiries, prepare addenda
- iii. Prepare bid tab, evaluate bids and bidders, prepare recommendation letter

4. Survey (No Change)

A. Level A and B SUE (No Change)

5. Geotechnical (No Change)

6. Environmental (No Change)

7. Structural Engineering (Change)

A. The following describes the scope for the structural engineering subconsultant.

- i. Design junction boxes for large conduit transitions
- ii. Design AREMA box culverts for railroad crossings

8. Drainage (No Change)

9. **Optional Additional Services - Prime** (Change)
 - A. Public Engagement Services

AGREEMENT SUPPLEMENT

(First Amendment to Professional Engineering Services Agreement)

1. PARTIES

- 1.1 Parties. The Parties to this Agreement Supplement ("Supplement") are **Pacheco Koch Consulting Engineers, 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 Agreement Supplement Description. On or about May 25, 2021, the County and Engineer entered into an Agreement for Professional Engineering Services (CAO File Number 21GEN1428, Purchase Order # HCNTY-0000035007) ("Agreement") to provide Drainage improvements to Humble Road Place and Parkland Estates Subdivisions located in Harris County Precincts 1 and 4 ("Project"). The Parties have agreed that additional Professional Engineering Services is required to complete the Project. Therefore, the Parties desire to amend the Agreement to increase the limit of appropriations from a maximum appropriation of \$648,501.00 to \$1,061,899.00 to fund the additional work (UPIN 21090MF22H01).
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corresponding firm fixed or maximum prices that neither increase the maximum amount of funds that Harris County Commissioners Court ("Commissioners Court") has authorized to be encumbered nor destroy the purposes of this Supplement. 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 Supplement ("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 Supplement, 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.

- 4.2 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.
- 4.3 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.

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- 5.2 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 **FOUR HUNDRED THIRTEEN THOUSAND THREE HUNDRED NINETY-EIGHT DOLLARS AND NO/100 (\$413,398.00)** to pay and discharge any and all liabilities that County may incur arising out of this Supplement. Any other provision notwithstanding, County shall never be liable to pay Engineer any greater amount under this Supplement than is specifically appropriated, encumbered, and then certified as available by the County Auditor.
- 5.3 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.
- 5.4 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 Supplement 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 Supplement unless the County Auditor certifies additional funds.

6. INSURANCE

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

associated with this Agreement. As a minimum, Engineer shall provide and maintain the following coverage and limits:

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

Employers' Liability

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

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

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

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

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

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

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

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

- (a) Be less than 12 months old;
- (b) Include all pertinent identification information for the Insurer, including the company name and address, policy number, NAIC number or AMB number, and an authorized signature;

- (c) Include the Project name and reference numbers and indicates the name and address of the Project Manager in the Certificate Holder Box; and
- (d) Be appropriately marked to accurately identify:
 - (i) All coverage and limits of the policy;
 - (ii) Effective and expiration dates;
 - (iii) Waivers of subrogation, endorsement of primary insurance and additional insured language, as described herein.

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

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

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

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

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

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

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

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

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

7. TERM OF THE SUPPLEMENT

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

8. TERMINATION PROVISIONS

8.1 Determination of Material and Non-Material Breaches. County Engineer shall determine whether a breach of this Supplement by either Party is material or non-material. County Engineer's determination shall be final and binding alike on all Parties.

- 8.2 Non-Material Breaches. If either Party refuses or fails to perform any of its non-material obligations in this Supplement, 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 Supplement immediately. HCED is authorized to give notice for County.
- 8.3 Material Breaches
- 8.3.1 Suspension. HCED may suspend this Supplement 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 Supplement. HCED is authorized to suspend on behalf of County.
- 8.3.2 Termination. The County may terminate this Supplement for a material breach at any time by notice in writing to the Engineer.
- 8.4 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 Supplement. The right to terminate for material or non-material breaches is in addition to and not in lieu of any other remedies.
- 8.5 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 Supplement. This statement or invoice must show in detail the unbilled/uninvoiced services performed for County under this Supplement 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.
- 8.6 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 Supplement on behalf of County. Within two (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 Supplement, 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 Supplement, 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.
- 8.7 Supplement Transition. In the event the Supplement ends by either expiration or termination prior to the end of its Term, the County may elect to name a replacement Engineer. Upon such occurrence, Engineer shall, at the request of the County, assist in the transition of Engineer's responsibilities under the Supplement. Engineer acknowledges its responsibility to cooperate fully with the replacement engineer and the County to ensure a smooth and timely transition. Such transitional period shall not extend more than ninety (90) days beyond the expiration/termination date of the Supplement, or any extension thereof. During any transition period, all other terms and conditions of the Supplement shall remain in full force and effect as originally written.

9. INDEMNIFICATION

- 9.1 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 Supplement.

10. MISCELLANEOUS

- 10.1 All the terms of the attached Agreement that are not in conflict with the terms of this Supplement shall remain the same and shall apply to this Supplement.

10.2 Exhibit List. The following attachments are a part of this Supplement:

Exhibit A-1. Scope of Services
Exhibit B-1. Original Professional Services Agreement
Exhibit C-1. Compensation for Professional Services

10.3 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 Supplement may be conducted by electronic means. Pursuant to these statutes, this Supplement may not be denied legal effect or enforceability solely because it is in electronic form or because it contains an electronic signature. This Supplement 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.

10.4 Signatory Authorized to Execute Supplement. The person executing this Supplement 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 Supplement on behalf of the Party.

10.5 Original Agreement Attached. The original agreement(s) being supplemented is/are attached.

10.6 Notices. Any notice required to be given under this Supplement ("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: Mark A. Pacheco, P.E., R.P.L.S.
President
Pacheco Koch Consulting Engineers, Inc.
20329 State Highway 249, Suite 350
Houston, TX 77070-2623
Email: powens@pkce.com

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

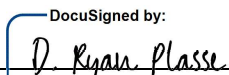
All other communications may be sent by electronic means or in the same manner as Notices described herein.

[EXECUTION PAGE FOLLOWS]

HARRIS COUNTY

By: _____
Lina Hidalgo
Harris County Judge

PACHECO KOCH CONSULTING ENGINEERS, INC.

DocuSigned by:
By: _____
D. Ryan Plasse, PE, CFM
Principal & Director of Water Resources

APPROVED AS TO FORM:

ATTEST:

CHRISTIAN D. MENELEE
Harris County Attorney

By: _____
Secretary


By: _____
Sam Kirchhoff
Assistant County Attorney
CAO File Number: 21GEN2288

EXHIBIT A-1 – SCOPE OUTLINE FOR AGREEMENT

**Project Name: HUMBLE ROAD PLACE AND PARKLAND ESTATES SUBDIVISIONS
DRAINAGE IMPROVEMENTS – 2018
PRECINCT FOUR (4), UPIN: 21090MF22H01**

GENERAL LOCATION

This project is located in the North-East Houston area, in the proximity of the US-59 and Beltway 8 Interchange. Humble Road Place subdivision is located within the Precinct 4 boundaries, whereas Parkland Estates lays within the Precinct 1 limits and both subdivisions are part of the Greens Bayou Watershed. The northern part drains into P133 and the southern part into P100.

EXISTING CONDITIONS

Existing conditions are described in our original contract for Study Phases 1 and 2 to which this proposal is an addendum.

PROFESSIONAL SERVICES (Change)

Pacheco Koch Consulting Engineers, Inc. (consultant) will provide Study, Design and Bid Phase engineering services for this Project. Engineering services shall be performed in accordance with Harris County Engineering Department (HCED) & Harris County Flood Control District (HCFCD) Standards and Guidelines and utilize Harris County Engineering Department Standards and Specifications. All design works shall conform to Harris County Engineering Department (HCED) Standards except in rights-of-ways and/or easements owned by other agencies, where it shall conform to other agency standards upon agreement by HCED.

Pacheco Koch Consulting Engineers, Inc. will perform study, design and bid phase in five stage process. This contract will facilitate Stage 3 - Partial of the Design process. This contract augments our Study Phase contract and is anticipated to be amended with Project Management for Design and Design services subsequent to this contract.

Stage 3 - Partial includes Project Management to Coordinate Subconsultants, and Subconsultants scopes to support the Detailed Design.

Consultants are to provide a lump sum fee breakdown for Services down to the second level in the outline (i.e., provide fees down to 1.a Deliverables) and sum for each phase (i.e., Study, Design, Bid etc.). The fee structure shall be reported in conformance with **Exhibit C (Compensation of Professional Services)** in the Agreements.

1. Study Phase (Change)**A. Project Management**

- i. Coordinate Subconsultants
- ii. Monthly Status Reports & Invoicing
- iii. Contract Amendment

B. Detailed Topographic Survey**C. Level "A" and "B" SUE****D. Limited Environmental****E. Geotechnical Investigation****F. Deliverables**

- i. Detailed Topographic Survey in dwg and pdf formats
- ii. Level "D" SUE Utility Schematic
- iii. Report for Pedestrian Cultural Resources Assessment of 65-Acre Mitigation Parcel
- iv. Report for geotechnical investigation with recommendations

2. Design Phase (No Change)**3. Bid Phase (No Change)****4. Survey (Change)****A. Detailed Design Survey**

The engineer will provide the alignment of the approved improvements from the Study Phase in a plan view CAD file. All bearings and coordinates will be based on the Texas Coordinate System of 1983 (NAD 83), South Central Zone 4204. Benchmark elevations will be referenced to NAVD 1988 (Geoid12B). Provide full street section detailed per HCFCD and HCED criteria at the locations listed below. In addition to full street and channel topographic sections, survey shall include any surface features such as utility poles and markers, valve boxes, storm features, grade breaks on roads and ditches, and any feature which may indicate an underground utilities that may be relevant to underground storm construction on both sides of the road.

- i. Aldine Bender from 100ft east of Grandy to Old Humble Road,
- ii. Ravendale from Aldine Bender to Laramie plus 100ft,
- iii. Ravendale from Rawlings 500ft north,
- iv. Laramie from Old Humble Road through Parkland Estates past Rawlings, Ravendale, UP Railroad, and Caven Street to its eastern end,
- v. Rawlings from 100ft north of south intersection with Ravendale southward to Dorylee,
- vi. Dorylee from Rawlings eastward across UP Railroad, Cold Springs, and Smith Road to its east terminus at Channel P133-00-00,
- vii. Caven Street from Laramie to Cold Spring,
- viii. Cold Spring from Caven along its east fork to Dorylee,

- ix. Ellenberger from Smith Road to Caven,
- x. Obtain a permit for access permission to be on Union Pacific railroad property. Shoot full cross sections of the railroad at the crossing with Laramie and with Dorylee,
- xi. Collect detailed cross section of P133-00-00 at the south boundary of the HCFCD 65-Acre Mitigation Parcel north of Dorylee. Cross-sections will identify grade breaks, channel top of bank, toe of slope, edge of water, and channel flowline elevations.
- xii. Coordinate with SUE consultant to survey approximately 12 utility testhole locations.
- xiii. Coordinate with Geotechnical consultant to survey approximately 42 borehole locations.

B. Levels “A” and “B” SUE

- i. Quality Level “A” and “B” Subsurface Utility Engineering Services will be performed for the detailed design phase of this Project. This augments Quality Level “D” SUE performed for the initial phase. All SUE work shall be performed in accordance with HCFCD & Harris County Flood Control District HCFCD Standards and Guidelines and utilize Harris County Engineering Department Standards and Specifications. All SUE work shall conform to Harris County Engineering Department (HCFCD) Standards except in rights-of-ways and/or easements owned by other agencies, where it shall conform to other agency standards upon agreement by HCFCD.
- ii. Subsurface Utility Engineering (SUE)
 - 1. Level “A” test holes shall be performed at ten locations where the proposed storm system crosses known petrochemical and large water lines. The proposal includes allowance for up to two additional testholes if necessary. Testholes are identified on the exhibit in the consultants’ attached proposal.
 - 2. Level “B” SUE along 2” Western Energy line east of Smith Road.
 - 3. Coordinate with the surveyor to identify x-y location of the testholes on the project survey.
 - 4. Provide weekly updates to prime consultant
 - 5. Attend bi-weekly progress meetings and conference calls as necessary.

5. Geotechnical (Change)

- A. Provide geotechnical analysis per HCFCD and HCFCD criteria with boreholes at forty-three (43) locations indicated on the exhibit in the consultant’s attached proposal. The locations are in accordance with the prime consultant’s proposed storm design and with HCFCD Geotechnical criteria. The main scope items are listed below. The scope is described in more detail in the subconsultants attached proposal.

- i. Visit site to evaluate site access and mark boring locations. Assume access to detention site is available, not required to obtain ROE
- ii. Call 811 to have underground utilities flagged
- iii. Review SUE map of known utilities from previous phase
- iv. Clear pathways in heavily-wooded detention site
- v. Field exploration for forty-three (43) boreholes using standard equipment and procedures
- vi. Backfill all boreholes along roadways and patch pavement with concrete
- vii. Coordinate with Surveyor to locate boreholes on survey
- viii. Observe and record groundwater levels
- ix. Install piezometers at detention site
- x. Prepare field boring logs
- xi. Provide traffic control in accordance with Texas MUTCD.
- xii. Perform laboratory testing and classify soils in accordance with United Soils Classification System.
- xiii. Perform global stability analysis and make recommendation for detention side slopes, pavement repair, identify fault locations, recommendations for soil for fill material, recommendations for groundwater control, bedding and backfill, trenchless installation considerations for boring at railroad and pipelines.
- xiv. Provide written report.

6. Environmental (Change)

A. The following scope augments the Environmental work performed in the initial phase of this project. Work for this phase includes:

- i. Cultural Terrestrial Field Investigation of the entire HCFCD 65-Acre P13 Mitigation Parcel east of Smith Road and north of Dorylee, adjacent to Channel P133. The subconsultant will subcontract with Moore Archeological Consultants who performed the original desktop review.
- ii. Investigate shallow buried deposits indicated in desktop study.
- iii. Perform shovel tests per THC and CTA standards with detailed notes, test logs and photos.
- iv. Abide by “no-collection” policy for any artifacts identified in the field
- v. Prepare report in accordance with THC and CTA guidelines.

7. Drainage (No Change)

8. Optional Additional Services (Change)

a) Survey - Proposed ROW Maps per Cat 1A, Condition II with metes & bounds and closure report

The surveys will meet the requirements of the current Texas Society of Professional Land Surveyors Standards & Specifications for a Category 1A, Condition II Survey. The standard boundary surveys describing the easements will include the items listed below:

- The engineer will contract with a title company to provide a City planning letter.
- Legal description of the easement tract described by metes & bounds.
- Identify ownership and deed record of adjoining properties.
- Location of visible improvements on property such as buildings, paving, and fences.
- Survey plat depicting the property line locations labeled with bearings, distances, acreage, and identifying found or set points marking the property corners.

PROFESSIONAL SERVICES AGREEMENT

(Professional Engineering Services)

1. PARTIES

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

2. PURPOSE

- 2.1 Project Description. County intends to provide Drainage Improvements to Humble Road Place and Parkland Estates located in Harris County, Precincts 1 and 4. ("Project"). This Project is also identified as UPIN 21090MF22H01.
- 2.2 Summary of Scope of Work. In addition to any applicable attachments to this Agreement describing the Scope of Work, County desires that Engineer provide Professional Engineering Services in the study, design and bidding phase of the Project, as further described in Exhibit A attached.
- 2.3 Professional Engineering Services. The professional services to be performed under this Agreement are within the scope of professional engineering, as defined by state law, and will be provided in connection with the professional employment or practice of a person who is licensed or registered as a professional engineer. The professional engineering services shall be performed in accordance with Tex. Occ. Code Ann. §§ 1001.001, et. seq, as amended.
- 2.4 Professional Services Procurement Act. The work to be performed under this Agreement cannot be purchased on the basis of competitive bids since it is encompassed within Texas Government Code §2254.002(2).

3. ENGINEER'S REPRESENTATIONS

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

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

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

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

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

5. ADDITIONAL AND SPECIAL REQUIREMENTS

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

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

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

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

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

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

6. INSURANCE

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

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

Employers' Liability

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

HUNDRED ONE DOLLARS AND NO/100 (\$648,501.00) 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 May 25, 2021, and end on the later date of (a) Project completion or (b) May 24, 2022.

9. TERMINATION PROVISIONS

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

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

10. INDEMNIFICATION

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

11. MISCELLANEOUS

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

ENGINEER: Mark A. Pacheco, P.E., R.P.L.S.
President
Pacheco Koch Consulting Engineers, Inc.
7557 Rambler Road, Suite 1400
Dallas, Texas 75231-2388
Email: mpacheco@pkce.com

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


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

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

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

- 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

PACHECO KOCH CONSULTING ENGINEERS, INC.

By: 
D. Ryan Plasse, P.E., CFM
Principal, Director of Water Resources

APPROVED AS TO FORM:

CHRISTIAN D. MENEFEE

Harris County Attorney

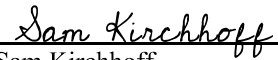
By: 
Sam Kirchhoff
Assistant County Attorney
CAO File Number 21GEN1428

EXHIBIT A – SCOPE OUTLINE FOR AGREEMENT

**Project Name: HUMBLE ROAD PLACE AND PARKLAND ESTATES SUBDIVISIONS
DRAINAGE IMPROVEMENTS – 2018
PRECINCT FOUR (4), UPIN: 21090MF22H01**

GENERAL LOCATION

This project is located in the North East Houston area, in the proximity of the US-59 and Beltway 8 Interchange. Humble Road Place subdivision is located within the Precinct 4 boundaries, whereas Parkland Estates lays within the Precinct 1 limits and both subdivisions are part of the Greens Bayou Watershed. The northern part drains into P133 and the southern part into P100.

EXISTING CONDITIONS

The Humble Road Place and Parkland Estates subdivisions were developed prior to 1970 and the 200+ acre project site is served by roadside ditch systems that drain either north to HCFCD channel P133-00-00 or south to Greens Bayou. The extreme northern and southern portions of the area lie within the 100-year and 500-year floodplain, but most residents live in low-risk areas. Although current regulations allow ditches, this area is considered non-conforming due to culvert sizes, ditch geometry, inadequate sheet flow design, poor lot grading, and the lack of detention basins.

The subdivision experiences drainage issues during frequent rainfall events because the lack of capacity in the roadside ditch but becomes quickly inundated during high intensity or long duration rainfall events due to riverine flooding from P133-00-00 and P100-00-00. A primary issue for P133-00-00 is a constriction at the nearby railroad bridge. The railroad bridge forces all flow through its single bridge opening and causes a backwater of over 1.4' in the 100-year storm. The project area is inundated with overflow from Greens Bayou Tributary that then travels south through the subdivisions between the railroad and Old Humble Road until it drains into Greens Bayou approximately one mile south. This overflow into the subdivisions causes flooding and damage to the houses located in these developments.

54 homes within the Parkland Estates subdivision reported flooding during Hurricane Harvey. Only 16 of those 54 are in the 500-year floodplain. 202 homes within the Humble Road Place subdivision reported flood damage during Hurricane Harvey. About half of the 202 flooded homes are in a special flood hazard area.

PROFESSIONAL SERVICES

Pacheco Koch Consulting Engineers, Inc. (consultant) will provide Study, Design and Bid Phase engineering services for this Project. Engineering services shall be performed in accordance with Harris County Engineering Department (HCED) & Harris County Flood Control District (HCFCD) Standards and Guidelines and utilize Harris County Engineering Department Standards and Specifications. All design works shall conform to Harris County Engineering Department (HCED) Standards except in rights-of-ways and/or easements owned by other agencies, where it shall conform to other agency standards upon agreement by HCED.

Pacheco Koch Consulting Engineers, Inc. will perform study, design and bid phase in five stage process. This contract will facilitate Stage 1 and Stage 2 of the design process. The contract is anticipated to be amended upon development and selection of design improvements at the end of Stage 2.

Stage 1 will include research, data collection, project management tasks and develop *existing* conditions drainage modeling and analysis for 2, 10, and 100-year storm events as per latest HCFCD PCPM guidelines and recommendations with proposed Improvements with No Impact on Downstream/Upstream and the receiving waters. Other tasks include Limited Topographic Survey, Level D SUE, partial Environmental & baseline drainage design alternatives. Stage 1 is included in the Study Phase.

Stage 2 tasks include proposed improvements drainage modeling and complete drainage analysis based on the limited survey information for 2, 10 and 100-year storm events as per latest PCPM guidelines with No Impact on Downstream/Upstream and the receiving waters, exhibits for milestone meetings and 30% Design. Stage 2 is included in the Design Phase.

The DIA report is to be finalized per HCFCD PCPM guidelines with approval from HCFCD.

Consultants are to provide a lump sum fee breakdown for Services down to the second level in the outline (i.e., provide fees down to 1.a Deliverables) and sum for each phase (i.e., Study, Design, Bid etc.). The fee structure shall be reported in conformance with **Exhibit C (Compensation of Professional Services)** in the Agreements.

1. Study Phase

A. Project Management

- i. Office & Field Scoping Meetings
- ii. Develop and Maintain Project Schedule
- iii. Bi-Weekly Coordination Meetings with County

- iv. Monthly Status Reports & Invoicing
- v. Stage 1 Review Meeting

B. Initial Drainage Study

- i. Drainage Analysis per NOAA Atlas 14 and Section 19 Drainage Impact Analysis Requirements
- ii. Existing Conditions Model (First 30 Days)
- iii. Proposed Conditions Model (First 60 Days)
- iv. Impact Evaluation and Mitigation (First 60 Days)
- v. Initial Drainage Tech Memo (First 60 Days)

C. Topographic Survey

D. Level "D" SUE

E. Environmental

F. Deliverables

- i. Presentation & Exhibits for pre-design conference meeting.
- ii. Draft Drainage Impact Analysis Report
- iii. Level "D" SUE Utility Schematic
- iv. Jurisdictional Features Map for P133-00-00

2. Design Phase

A. Project Management

- i. Develop and Maintain Project Schedule
- ii. Bi-Weekly Coordination Meetings with County
- iii. Monthly Status Reports & Invoicing
- iv. 30% Design Review Meeting
- v. Utility Coordination (identification/verification of utilities)
- vi. Contract Amendment

B. Final Drainage Study

- i. Updated Drainage Analysis based on review comments, limited topographic survey and 30% design plans.
 - 1. Existing Conditions Model
 - 2. Proposed Conditions Model
 - 3. Impact Assessment and Mitigation
- ii. P133-00-00 Rail Bridge Improvement Evaluation
- iii. P133-00-00 Rail Bridge Impact Evaluation and Mitigation
- iv. Final Drainage Impact Analysis and Report

C. 30% Design Plans - Design plans will be based on available LiDAR point cloud data, Limited Topographic Survey, Level "D" SUE and Harris County Parcel Data.

- i. Cover Sheet
- ii. Index of Sheets
- iii. Project Layout (scale 1"=100')

- iv. Typical Sections
- v. Express Review Sheets (HCED & HCFCD)
- vi. Drainage Area Map/Calc Sheets (scale 1"=100')
- vii. Drainage Plan & Profile (Storm) (scale 1"=20'/1"=2')
- viii. Drainage Plan & Profile (Ditch) (scale 1"=20'/1"=2')
- ix. Ditch Cross-Sections @ 100' Intervals (scale 1"=20'/1"=2')
- x. P133 Bypass Plan & Profile (scale 1"=20'/1"=2')
- xi. Detention Area 1 Grading Plan (scale 1"=20')
- xii. Detention Area 2 Grading Plan (scale 1"=20')
- xiii. Existing Site Utility Layout (scale 1"=500')
- xiv. Opinion of Probable Construction Costs
- xv. List of Design Exceptions/Waivers

D. Deliverables

- i. Presentation & Exhibits for 30% Design Review Meeting
- ii. Final Drainage Report
- iii. 30% Design Plan Submittal
- iv. Preliminary Opinion of Probable Construction Costs

3. Bid Phase – to be included with the contract amendment at the end of Stage 2.

4. Survey

A. Drainage and Structure Survey

The engineer will provide field data with spot elevations and a plan view CAD file within the project area. All bearings and coordinates will be based on the Texas Coordinate System of 1983 (NAD 83), South Central Zone 4204. Benchmark elevations will be referenced to NAVD 1988 (Geoid12B). Locate roadway cross-culverts at specified locations.

- i. Locate the Old Humble Road and Aldine Bender Road storm sewer systems between P133-00-00 and P100-00-00. Tie above ground storm water structures & outfalls, record flowline elevations within accessible manholes & grates and measure opening of inlets.
- ii. Obtain four (4) channel cross-sections along P100-00-00 upstream and downstream of Union Pacific Railroad bridge crossing. Cross-sections will identify grade breaks, channel top of bank, toe of slope, edge of water, and channel flowline elevations.
- iii. Obtain four (4) channel cross-sections along P168-00-00 upstream and downstream of Old Humble Road bridge crossing. Cross-sections will identify grade breaks, channel top of bank, toe of slope, edge of water, and channel flowline elevations.
- iv. Obtain four (4) channel cross-sections along P133-00-00 upstream and downstream of Union Pacific Railroad bridge crossing. Cross-sections will identify grade breaks, channel top of bank, toe of slope, edge of water, and channel flowline elevations.

- v. Obtain a permit for access permission to be on Union Pacific railroad property. Data should identify column/support locations and sizes, low chord elevations, top of deck, railings, and abutments.
- vi. Collect static water surface elevations at specified locations.
- vii. Obtain detailed survey of structures hydraulic openings crossing the channels (2 railroad bridges and 1 Old Humble Rd into P168-00-00).
- viii. Obtain detailed survey of the southern overbank of P133-00-00 approximately 200 feet upstream and downstream of the Union Pacific Railroad bridge crossing.
- ix. Obtain detailed survey information for six (6) cross culverts throughout the study area.

B. Level "D" SUE

A Quality Level "D" Subsurface Utility Engineering Services for the initial phase of this Project will be performed. Quality Levels "A", "B" and "C" SUE services will be performed during Stage 3 of the project and shall be performed in accordance with Harris County Engineering Department (HCED) & Harris County Flood Control District (HCFCD) Standards and Guidelines and utilize Harris County Engineering Department Standards and Specifications. All SUE work shall conform to Harris County Engineering Department (HCED) Standards except in rights-of-ways and/or easements owned by other agencies, where it shall conform to other agency standards upon agreement by HCED.

i. Subsurface Utility Engineering (SUE)/Utility Coordination

- 1. Conduct Records Collection (QL "D" SUE)
- 2. Develop and Maintain Utility contact list and conflict table.
- 3. Coordinate with Utility Owners as required
- 4. Provide utility agreements (if needed)
- 5. Provide monthly progress reports with invoice.
- 6. Attend bi-weekly progress meetings.

5. Geotechnical - to be included with the contract amendment at the end of Stage 2.

6. Environmental

The extent of the proposed drainage improvements has not been determined, so a full environmental assessment will not be conducted with Stage 1 and Stage 2 of this project. However, a bypass along P133-00-00 is proposed and the environmental associated with these improvements will be conducted with this initial phase.

A. Jurisdictional Delineation of Waters of the United States, Including Wetlands along P133-00-00 from approximately 200 feet upstream of the Union Pacific Railroad crossing to Smith Road.

- i. Identify and delineate the following within the Subject Property:
 - 1. All potential jurisdictional WOUS, including wetlands.
 - 2. All non-jurisdictional wetlands
 - 3. All non-jurisdictional watercourses

B. Delineation Fieldwork and Reporting

- i. All wetlands will be delineated in accordance with the procedures mandated in the USACE 1987 Wetland Delineation Manual (Manual) and November 2010 Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Atlantic and Gulf Coastal Plain (Version 2.0). The Ordinary High-Water Mark (OHWM) of all waterbodies will be delineated in accordance with standard procedures set forth by the USACE. The delineation will adhere to industry standards utilized on similar projects in similar areas by qualified wetland scientists. All boundaries shall be surveyed with sub-meter Global Positioning System (GPS) technologies that are consistent with the methodologies generally accepted by the USACE.
- ii. Jurisdictional Delineation Report. The report will include a discussion of the natural resources found on the Subject Property, including vegetation, hydrology, and soils, along with the results of the field investigation for jurisdictional wetlands and waters. The report will include:
 1. Wetland/upland data sheets
 2. Subject Property map indicating the size and location of wetlands based on GPS measurements.
 3. Minimum of 10 Subject Property photographs
 4. Vicinity map
 5. FEMA 100-year floodplain map
 6. United States Geological Survey (USGS) topographic maps
 7. Natural Resources Conservation Service (NRCS) soils map
 8. Historical aerial photographs
 9. Infrared imagery
 10. United States Fish and Wildlife Service (USFWS) National Wetlands Inventory (NWI) map
 11. USGS National Hydrography Dataset (NHD) watershed map
 12. Light Detection and Ranging (LiDAR) map

7. Drainage

A comprehensive drainage analysis will be performed to evaluate the Humble Road Place and Parkland Estates drainage patterns, identify the areas with elevated flood risks, determine the cause and source of the flooding, and develop a drainage improvement plan to reduce flooding. The drainage study will be phased to facilitate a rapid initial drainage study phase followed by the final drainage impact analysis and study. The initial drainage study will define the subdivision drainage improvement. Additionally, the study will include the evaluation of a railroad bypass to relieve flooding on P133-00-00 which is understood to presently negatively impact the project area.

The drainage analysis will be completed under the guidelines of the latest HCFCD Policy Criteria & Procedure Manual, 2004, Updated 2018 & Interim Guidelines, July 2019.

The following tasks will be performed as part of the drainage analysis:

- A. Drainage Study Project Management: Project Management/Project Controls activities related to the drainage study are ongoing throughout the period of the study. This effort includes managing the project schedule, developing, and managing the project work plan, and general project communication.
- B. Project Coordination: Bi-weekly project meetings will be conducted virtually during Stage 1 and Stage 2 of the project.
- C. Quality Control: A thorough Quality Assurance/Quality Control (QA/QC) Plan will be implemented to ensure overall accuracy of the project. Modeling check lists will be implemented to review the existing and proposed models. All deliverables will be reviewed prior to submitting.
- D. Data Collection: Research and collect available LiDAR data, rain gauge data, GIS base map data, repetitive flood loss claims, record drawings (limited/as needed) and other relevant information for the study. The FEMA models for P100-00-00 and P133-00-00 will be obtained from HCFCD. Information regarding the HCFCD P133 bypass and detention project will be requested from HCFCD.
- E. Field Visit: Perform periodic site visits to evaluate drainage patterns, measure infrastructure and review survey. Documentation from the field visit will be organized and included in the project report. Perform wet weather site visit to evaluate and document sheet flow patterns. Documentation from the field visit will be organized and included in the project report.
- F. Develop and Analyze Existing Conditions Model: A hydrodynamic 2D model of the existing conditions will be developed to determine the location, severity, and frequency of flooding. Hydrology will be based on Atlas 14 rainfall and will follow the latest HCFCD PCPM guidelines and recommendations. Hydrology will be rain on grid. Minor driveway culverts will be ignored in the hydraulics model. Culverts of sufficient size to influence the design events will be included in the model. The existing conditions model will identify existing outfalls to P100 and P133 and determine the existing peak flow to each outfall. Channels P100 and P133 will not be modeled in detail within the model but will be accounted for as boundary conditions. Model inputs will be developed for the 2D model and analyze the region for the 2-, 10-, and 100-year, 24-hour storm events.

- G. Model Validation: Rain gauge data will be developed from available HCFCD Flood Warning System gauges. Rainfall hyetographs will be developed from the gauge data and used for the simulation. Graphics will be developed that demonstrate the model's ability to replicate the storm events. Flooded structures within the model will be identified and compared to those structures that reported actual flooding during the event.
- H. Develop and Analyze Proposed Conditions: Initial solution concepts to alleviate flooding for the identified drainage issues will be developed and simulated to confirm effectiveness. Up to three alternatives will be developed and analyzed for effectiveness. Solution concepts that are anticipated to be explored include improved conveyance to either or both P100 and P133.
- I. Impact Evaluation and Mitigation: Unmitigated solutions will be developed as an interim milestone to establish the project impacts without detention and to approximate the mitigation order of magnitude. Mitigation alternatives will be identified. Detention mitigation is anticipated as a necessary project component to prevent downstream impacts. Available detention locations will be identified, and their approximate volume quantified. This effort includes preliminary basin layouts necessary to determine the stage storage volume relationship. The detention pond locations will be simulated within the proposed conditions models to demonstrate no adverse impact. Control structures will be sized accordingly. It is anticipated that the mitigation basins will be offline located adjacent to channels P100-00-00 and P133-00-00. The effective HEC-HMS and HEC-RAS models will be updated to simulate the improved subdivision drainage and the offline mitigation basin.
- J. Initial Drainage Report: An initial drainage study summary report will be developed that will consist of a discussion of the work accomplished, general methodology, assumptions applied during the course of study, study goal, the reported drainage problems, structural flooding, system capacity issues, findings & recommendations.
- K. P133-00-00 Rail Bridge Improvement Evaluation: Utilizing HCFCD's P133-00-00 bypass CIP modeling as a starting point, evaluate improvement options for the railroad bridge crossing of P133-00-00. Update available model with survey data. Discuss improvement alternative with County during bi-weekly coordination meetings and evaluate alternatives of a bypass culvert. Improvement scenarios will be evaluated both with and without the planned P133-00-00 HCFCD by-pass project.
- L. P133-00-00 Rail Bridge Impact Evaluation and Mitigation: Impacts will be assessed and quantified for the unmitigated improvement options.

Detention basin options downstream of the rail bridge will be developed including preliminary detention basin layouts and determining storage curve data. The basin will be analyzed to determine the effectiveness at mitigating the rail improvement. Steady state analysis with SV/SQ routing is anticipated.

- M. Updated Drainage Analysis: The existing and proposed drainage analysis will be updated based on more detailed survey and modifications to the design throughout the design process.
- N. Final Drainage Report: The final drainage report and impact analysis will be developed that reflects the final project design. The report will be submitted through the HCFCD review process and will demonstrate that the project has no adverse impact.

8. Optional Additional Services

N/A

EXHIBIT B

Humble Road Place and Parkland Estates Subdivisions Drainage Improvements

UPIN: 21090MF22H01

Initial Project Schedule



Professional Services
Project Name: Humble Road Place and Parkland Estates (PCT 4) Subdivisions Drainage Improvements
Project Limits: Precinct 4
UPIN: 21090MF22H01
Construction Cost Estimate: \$22,000,000

1	Study Phase		
	a) Professional Services for Study Phase		\$33,860.00
2	Design Phase		
	a) Professional Services for Design Phase		\$400,410.00
3	Bid Phase		\$0.00
4	Survey		
	a) Existing ROW and Topographic Survey	\$30,816.00	
	b) Level D SUE	\$14,500.00	
			\$45,316.00
5	Geotechnical		\$0.00
6	Environmental		
	b) Wetlands Determination & Delineation	\$8,000.00	
			\$8,000.00
7	Drainage		
	a) Analysis and Impact Analysis Report	\$160,915.00	
			\$160,915.00
Subtotal Basic Services (1-7):			\$648,501.00
8	Optional Additional Services - NA		\$0.00
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)			\$648,501.00



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)
 - **SBE** (Small Business Enterprise)
 - **HUB** (Historically Underutilized Business)
 - **DBE** (Disadvantaged Business Enterprise)
3. Also, all contract values must be identified in the table under "Contract Value".

Responsibility	Firm	Special Designation	Contract Value
Prime	Pacheco Koch Consulting Engineers, Inc.		434,270.00
Surveying	Landtech Inc.	MBE, DBE	30,816.00
Geotechnical	Terracon Consultants, Inc.		0
Environmental	Hollaway Environmental + Communications	WBE, DBE	8,000.00
Traffic Engineering	NA		0
Drainage	Gauge Engineering	SBE	160,915.00
S.U.E.	The Rios Group	MBE, HUB, SBE	14,500.00

Percent of contract in dollars allocated to (MWBE, SBE, HUB or DBE) Consultants 33.0 %.

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

1	Study Phase		
	a) Professional Services for Study Phase (completed)		\$0.00
2	Design Phase		
	a) Professional Services for Design Phase		\$0.00
3	Bid Phase		\$0.00
4	Survey		
	a) Existing ROW and Detailed Topographic Survey	\$218,164.00	
	b) Level A and B SUE	\$26,200.00	
			\$244,364.00
5	Geotechnical		\$133,724.00
6	Environmental		
	a) Wetlands Delineation Determination	\$0.00	
	b) Cultural Resources Field Investigation and	\$18,500.00	
			\$18,500.00
7	Drainage		
	a) Analysis and Impact Analysis Report	\$0.00	
			\$0.00
Subtotal Basic Services (1-7):			\$396,588.00
8	Optional Additional Services - Survey		
	a. Proposed ROW Maps Cat 1A, Cond II with Metes & Bounds and Closure Report		
	Additional Small-Acreage Parcels: \$3,480/ea for up to 3 parcels = \$10,440		
	Additional Detention Basin Parcels: \$6,370/ea for up to 1 parcel = \$6,370		\$16,810.00
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)			\$413,398.00

1	Study Phase		
	a) Professional Services for Study Phase		\$0.00
2	Design Phase		
	a) Professional Services for Design Phase		\$1,047,470.00
3	Bid Phase (2 Bid Packages)		\$17,850.00
4	Survey		
	a) Existing ROW and Detailed Topographic Survey		
	b) Level A and B SUE		
			\$0.00
5	Geotechnical		\$0.00
6	Environmental		
	a) Cultural Resources Field Investigation and Wetlands Delineation Determination		\$0.00
7	Structural		
	a) Design storm junction boxes, AREMA box culverts for railroad crossing, direct expenses.		
			\$32,500.00
8	Drainage		
	a) Analysis and Impact Analysis Report	\$0.00	\$0.00
Subtotal Basic Services (1-8):			\$1,097,820.00
9	Optional Additional Services - Prime		
	a. Public Engagement Services		\$12,845.00
TOTAL SERVICES (BASIC & OPTIONAL ADDITIONAL)			\$1,110,665.00

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 SUPPLEMENT BETWEEN
HARRIS COUNTY AND
PACHECO KOCH CONSULTING ENGINEERS, INC.
FOR SECOND AMENDMENT TO PROFESSIONAL ENGINEERING SERVICES
AGREEMENT**

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

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

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

IT IS ORDERED that:

1. The Harris County Judge is authorized to execute the attached Agreement Supplement between **Harris County** and **Pacheco Koch Consulting Engineers, Inc.** for Second Amendment to Professional Engineering Services Agreement. The attached Supplement, 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 **\$1,110,665.00** in consideration of the work, products, services, licenses and/or deliverables provided under this Supplement.
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.