AGREEMENT FOR ENGINEERING SERVICES

THE STATE OF TEXAS §
§
COUNTY OF HARRIS §

THIS AGREEMENT is made, entered into, and executed by and between the **Harris County Flood Control District**, a body corporate and politic under the laws of the State of Texas, hereinafter called "District" or "HCFCD," and J.M. Torres and Associates, LLC, a Texas limited liability company, hereinafter called "Engineer."

WITNESSETH, that

WHEREAS, the District desires to evaluate the Sims Bayou Tributary, Harris County Flood Control Unit C124-00-00, hereinafter called the "Project"; and

WHEREAS, the District desires that the Engineer provide Engineering Services for the Project; and

WHEREAS, the Engineer represents that it is capable and qualified to perform the various services that may be required.

NOW THEREFORE, the District and the Engineer, in consideration of the mutual covenants and agreements herein contained, do mutually agree as follows:

SECTION I

CHARACTER AND EXTENT OF SERVICES

From time to time during the course of this Agreement, the Executive Director of the District or his designee (the "Director") may deliver to the Engineer written authorization in accordance with this Section for the performance of certain engineering services with regard to the Project, which services the Engineer shall then perform in accordance with this Agreement. The Director may authorize the Engineer to provide all or any of the engineering services in connection with the study phase of the Project that are listed in Appendix A.

The District shall have no obligation to pay for any services hereunder that have been rendered without the prior written authorization for such services by the Director. The written authorization shall specify the services to be performed, a budget amount for such services, and a required completion date for such services. During the course of any services authorized hereunder, the Engineer shall provide the District with progress reports at such times and in such manner as may be requested by the Director. If it should become evident that the Engineer will not be able to complete any service hereunder by the previously set completion date or within the previously set budget for same, the Engineer shall notify the Director as soon as possible.

SECTION II

TIME OF PERFORMANCE

Upon receipt of a written authorization to perform certain services hereunder, the Engineer shall proceed diligently to complete each service within the limits of time therein specified. The District shall have no obligation to pay for a service performed after the required completion date for same as set forth in its authorization, except to the extent the date for required completion is extended and continuation of such service is approved by further written authorization from the Director.

SECTION III

THE ENGINEER'S COMPENSATION

For and in consideration of services rendered by employees of the Engineer pursuant to this Agreement, the District shall pay the Engineer in accordance with the following maximum hourly rates:

Position	Maximum Hourly Rate
Principal	$275.00
Team Leader	$270.00
Senior Project Manager	$260.00
Project Manager	$210.00
Senior Engineer III	$195.00
Senior Engineer II	$180.00
Senior Engineer I	$160.00
Engineer V	$145.00
Engineer IV	$132.00
Engineer III	$121.00
Engineer II	$111.00
Engineer I	$100.00
Sciences Lead	$218.00
Senior Scientist III	$179.00
Senior Scientist II	$130.00
Senior Scientist I	$122.00
Scientist III	$112.00
Scientist II	$100.00
Scientist I	$ 77.00
Senior. Landscape Architect	$190.00
Landscape Architect	$106.00
Senior Geomaticist II	$156.00
Geomaticist I	$ 77.00
Senior Survey Field Data Specialist II	$ 77.00
Senior Survey Field Data Specialist I	$ 71.00
Survey Crew - 3 Person	$210.00
Survey Crew - 2 Person	$160.00
Senior GIS Technician II	$160.00
Senior GIS Technician I	$105.00
GIS Technician II	$ 95.00
GIS Technician I	$ 85.00

Position	Maximum Hourly Rate
Designer III	$125.00
Designer II	$110.00
Designer I	$105.00
Technician/Cad Operator II	$100.00
Technician/Cad Operator I	$ 95.00
Admin II	$ 95.00
Admin I	$ 90.00
Clerical Support	$ 85.00
Data Entry	$ 75.00
Intern	$ 38.40

Adjustments to fixed fee allocations may be made with prior review and written approval by the Director pursuant to Section I of this Agreement.

It is expressly understood that the Engineer shall neither seek reimbursement nor will the District be obligated to pay or reimburse the Engineer for normal business expenses such as overtime, postage, messenger services, delivery charges, mileage within Harris County, parking fees, facsimile (fax) transmissions, computer time on in-house computers and graphic systems, blueline drawings or photocopies specifically required by Section I, or other costs or expenses, except those for which reimbursement is specifically provided in the following sentence. If approved in writing by the Director prior to their being incurred, the Engineer may be reimbursed the reasonable and necessary cost of the following, to the extent they are incurred in providing services hereunder: services performed by a subcontractor pursuant to authorization for such expense and as permitted by the County Purchasing Act, copies of reports or other documents to be delivered to the District or in accordance with instructions of the District in excess of the number specifically required by Section I, costs of travel outside of Harris County, rental costs of transportation equipment necessary to gain access to the Project site, costs of presentation materials (i.e., charts, slides, transparencies), costs of abstracting, and costs of photographic and video services.

The District shall have no obligation to pay compensation or reimbursement for any service or expense in excess of the amount budgeted for same in its written authorization, except to the extent the budget for such service is increased and continuation of such service is approved by further written authorization from the Director.

At the option of the Director, the Director may also issue work authorization(s) for performance of specified professional services to be compensated on a lump sum basis upon acceptance by Engineer. If a work authorization specifies payment on a lump sum basis for certain services, the hourly rates set out above shall not apply. In addition, where work performed pursuant to a work authorization is to be compensated on a lump sum basis, the budget for same shall not be increased pursuant to Section I or Section III of this Agreement, except to the extent that additional services are assigned to be performed by the Engineer by further written authorization from the Director.

SECTION IV

TIME OF PAYMENT

During the performance of the services provided herein, at intervals of not fewer than thirty (30) days each, the Engineer shall submit to the District a statement sworn to by the Engineer or an officer of the Engineer, in a form acceptable to the County Auditor of Harris County and in

compliance with Section III, setting forth the services completed and the compensation due for the same that have not been previously billed or paid. All hourly charges shall be itemized on the basis of the hourly rates and shall be certified in writing by the Engineer to be true and correct. The Director and the Harris County Auditor shall approve each statement after review, with such modifications as may be deemed appropriate. The District shall pay each statement approved within thirty (30) days after approval by the Director and the County Auditor, provided that the approval or payment of any such statement shall not be considered to be evidence of performance by the Engineer to the point indicated by such statement, or of the receipt of or acceptance by the District of the work covered by such statement. The Engineer shall in no case submit an invoice for less than $500.00, except where the invoice is for the final payment.

Time sheets corroborating the information provided in the statement, signed by individuals performing services under this Agreement and their supervisor(s), showing the name of each individual performing services hereunder, the date or dates that he or she performed said services, his or her hourly rate, the total amount billed for each individual, and the total amount billed for all individuals, and including such other details as may be requested by the Harris County Auditor for verification purposes, shall be kept and maintained by the Engineer for a period of five (5) years after the completion of performance hereunder. The Director and/or the County Auditor shall have the right, after giving written notice, to review any and all documents or other data in the custody of the Engineer, in connection with any statement submitted by the Engineer to the District for approval and payment by the District.

SECTION V

TERMINATION

The District may terminate this Agreement at any time by notice in writing to the Engineer. Upon receipt of such notice, the Engineer shall discontinue all services in connection with the performance of this Agreement. As soon as practicable after receipt of notice of termination, the Engineer shall submit a statement, showing in detail the services performed under this Agreement to the date of termination. The District shall pay the Engineer the prescribed compensation for the services actually performed under this Agreement, less such payments on account of the charges as have been previously made. Copies of all complete or partially complete designs, plans, specifications, and other documents prepared or obtained under this Agreement shall be delivered to the District when and if the Agreement is terminated.

SECTION VI

ADDRESS OF NOTICES AND COMMUNICATIONS

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the Engineer at the following address:

J.M. Torres and Associates, LLC
3040 Post Oak Boulevard, Suite 1800 #110
Houston, Texas 77056
Attn: Dr. Jacob Torres, P.E.

All notices and communications under this Agreement shall be mailed by certified mail, return receipt requested, or delivered to the District at the following address:

Harris County Flood Control District
9900 Northwest Freeway
Houston, Texas 77092
Attn: Executive Director

SECTION VII

LIMIT OF APPROPRIATION

The Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that the District shall have available the total maximum sum of $350,000.00 specifically allocated to fully discharge any and all liabilities incurred by the District pursuant to the terms of this Agreement, and that the total maximum compensation the Engineer may become entitled to hereunder and the total maximum sum the District shall become liable to pay to the Engineer hereunder shall not under any conditions, circumstances, or interpretations hereof exceed the said total maximum sum provided for in this Section and certified as available therefor by the County Auditor as evidenced by the issuance of a purchase order from the Harris County Purchasing Agent.

SECTION VIII

SUCCESSORS AND ASSIGNS

The District and the Engineer bind themselves and their successors, executors, administrators, and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of such other party in respect to all covenants of this Agreement. Neither the District nor the Engineer shall assign, sublet, or transfer its or his interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body that may be a party hereto.

SECTION IX

PUBLIC CONTACT

Engineer shall under no circumstances release any material or information developed in the performance of services hereunder, without the prior express written permission of the Director. Contact with the news media, private citizens, or community organizations shall be the sole responsibility of the District. Inquiries concerning this Agreement or any Requested Service shall be referred to the Director.

SECTION X

COMPLIANCE AND STANDARDS

The Engineer agrees to perform the work hereunder in accordance with generally accepted standards applicable thereto and shall use that degree of care and skill commensurate with the Engineer's profession to comply with all applicable state, federal, and local laws, ordinances, rules, and regulations relating to the work to be performed hereunder and the Engineer's performance. The Engineer represents that, prior to performing hereunder, it has or shall obtain all necessary licenses, ownership, or permission for use of any and all proprietary information, materials, or trade secrets employed in the performance of work hereunder for the District and agrees that he shall not copy, reproduce, recreate, distribute, or use any such proprietary information, materials, or trade secrets of any third party, except to the extent permitted by such third parties, or as otherwise authorized by law.

In accordance with TEX. GOV'T CODE ANN. § 2270.002, the Engineer warrants and represents that it does not boycott Israel and agrees that it will not boycott Israel during the term of this contract.

The Engineer represents and certifies that, at the time of execution of this Agreement, the Engineer (including, in this provision, any wholly owned subsidiary, majority-owned subsidiary, parent company or affiliate of the same) is not listed by the Texas Comptroller of Public Accounts

pursuant to Chapters 2252 or 2270 of the Texas Government Code, nor will the Engineer engage in scrutinized business operations or other business practices that could cause it to be listed during the term of this Agreement.

The Engineer warrants and represents, in accordance with Tex. Gov't Code Ann. § 2274.002, that unless the Engineer meets an exemption under subsection (c), then, as required by subsection (b), the Engineer's signature on this Agreement constitutes the Engineer's written verification that it does not boycott energy companies and will not boycott energy companies during the term of the contract.

The Engineer warrants and represents, in accordance with Tex. Gov't Code Ann. § 2274.002, that unless the Engineer meets an exemption under subsection (c) or section 2274.003, then, as required by subsection (b) of section 2274.002, the Engineer's signature on this Agreement constitutes the Engineer's written verification that it does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and will not discriminate against a firearm entity or firearm trade association during the term of the contract.

SECTION XI

LICENSE REQUIREMENTS

The Engineer shall have and maintain any licenses or certification required by the State of Texas or recognized professional organization governing the services performed under this Agreement.

SECTION XII

CERTIFICATE OF INTERESTED PARTIES

In compliance with Government Code § 2252.908, the Engineer must submit a completed Certificate of Interested Parties Form 1295, including an unsworn declaration and the Certification of Filing, printed after completing the electronic filing requirements on the Texas Ethics Commission website (see www.ethics.state.tx.us/whatsnew/elf_info_form1295.htm), to the District along with this signed Agreement.

SECTION XIII

CONFLICT OF INTEREST CERTIFICATION

The Engineer certifies that the Engineer has complied with Chapter 176 of the Texas Local Government Code by completing and filing any required conflict of interest disclosures or questionnaires (see www.ethics.state.tx.us). If this certification is materially incomplete or inaccurate, the Engineer acknowledges that the District shall have the right to terminate this Agreement without prior notice.

SECTION XIV

INDEMNIFICATION

TO THE EXTENT ALLOWED BY LAW, THE ENGINEER AGREES TO INDEMNIFY AND HOLD HARMLESS THE DISTRICT, ITS 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 THE ENGINEER (INCLUDING THE 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. THE ENGINEER SHALL ALSO SAVE THE DISTRICT HARMLESS FROM AND AGAINST ANY AND ALL EXPENSES, INCLUDING REASONABLE ATTORNEYS' FEES, IN PROPORTION TO THE ENGINEER'S LIABILITY, THAT MIGHT BE INCURRED BY THE DISTRICT, IN LITIGATION OR OTHERWISE RESISTING SUCH CLAIMS OR LIABILITIES.

SECTION XV

INSURANCE REQUIREMENTS

Coverage and Limits. During the Term of this Agreement and any extensions thereto, the 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, the 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, the District may require coverage for watercraft, blasting, collapse, explosions, blowout, cratering, underground damage, pollution, and other coverage. *The District 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)	$2,000,000

(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. *The District shall be named Additional Insured on primary/non-contributory basis*.

(e) Automobile Liability insurance to include the Engineer's liability for death, bodily injury, and property damage resulting from the 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. *The District shall be named Additional Insured on primary/non-contributory basis*.

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

Delivery of Policies. Immediately upon execution of this Agreement and before any services are commenced by the Engineer, the Engineer shall provide the District evidence of all of the above coverage on forms and with insurers acceptable to the District. The Engineer must maintain a valid Certificate of Insurance as described herein on file with the District at all times during the

term of this Agreement. The Engineer must either (1) mail the Certificate of Insurance to the District at 9900 Northwest Freeway, Houston, TX 77092, Attn: Contract Management or (2) submit it by email to HCFCD_AdminServices@hcfcd.hctx.net.

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.

Certificates of Insurance. The 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 indicate 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.

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

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

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. The Engineer shall furnish evidence of such insurance to the District as well.

Additional Insured. The Engineer shall include the District 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. The Engineer's coverage shall be primary insurance to any similar insurance maintained by the District and must contain an endorsement stating such. Coverage to the District as an Additional Insured on any of the Engineer's insurance coverage shall not be subject to any deductible.

Deductibles. The 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 the District, its officers, directors, agents, or employees.

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"). The 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.

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

Notice of Cancellation, Non-Renewal, or Material Change. The Engineer shall provide the District 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.

Remedies for Noncompliance. Failure to comply with any part of this Article is a material breach of this Agreement. The 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 the Engineer to be in noncompliance with the requirements of this Article.

SECTION XVI

OWNERSHIP OF PLANS, COPYRIGHT

The District shall be the absolute and unqualified owner of any information, programs, Mylar reproducibles, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, computations, computer input/output information, and other documents or materials prepared pursuant to this Agreement, including source codes therefor, with the same force and effect as if the District prepared the same. The District shall have an exclusive and perpetual copyright in and to any and all materials produced for the District pursuant to this Agreement and the Engineer shall convey and assign, and does hereby convey and assign, to District all right, title, and interest, including but not limited to copyright, the Engineer may have or may acquire in and to such materials. The Engineer agrees that work performed hereunder for the District will be deemed to have been done, to the extent authorized by law, on a "works made for hire" basis. In the event and to the extent such works are determined not to constitute "works made for hire" as that term is understood in copyright law, the Engineer hereby irrevocably assigns and transfers to the District all right, title, and interest in and to such works, including, but not limited to, copyrights. The Engineer agrees to promptly deliver to the District copies, in a form acceptable to the Director, of any and all such information, programs, Mylar reproducibles, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, documents, materials and/or data, including the source codes therefor, upon request from the District. Copies of all complete or partially complete information, programs, Mylar reproducibles, plans, preliminary layouts, sketches, reports, cost estimates, inventions, software, firmware, designs, computer applications, and other documents and materials, including source codes therefor, prepared pursuant to this Agreement, shall also be delivered to the District when and if the Agreement is terminated, or upon completion of performance hereunder, whichever occurs first. The Engineer may retain one (1) set of reproducible copies of such documents and materials, but such copies shall be for the Engineer's use in the preparation of studies or reports for the District only. The Engineer is expressly prohibited from selling, licensing, or otherwise marketing or donating such documents or materials, or using the same in the preparation of work for any other client without the express written permission of the Director. The Engineer does not intend or represent that construction documents or materials will be suitable for reuse. If the District reuses the same, such action shall be at the District's risk and without liability to the Engineer. If the Engineer furnishes partially complete plans, layouts, sketches, specifications, or other documents and materials by virtue of termination under Section VII above, the Engineer shall not be held accountable or responsible for the completeness of any document or material so produced.

SECTION XVII

MODIFICATIONS

This instrument contains the entire Agreement between the parties relating to the rights herein granted and obligations herein assumed. Any oral or written representations or modifications

concerning this instrument shall be of no force or effect, excepting a subsequent modification in writing signed by both parties hereto.

EXECUTED on _____.

APPROVED AS TO FORM:

CHRISTIAN D. MENEFEE
Harris County Attorney

By DocuSigned by: Mitzi Turner 27D876F21B1047A...
MITZI TURNER
Assistant County Attorney

HARRIS COUNTY FLOOD CONTROL DISTRICT

By _____
LINA HIDALGO
County Judge

ATTEST:

DocuSigned by: F2EE0643CC444C6...
Edith Arambula Mercado
Name
Partner, Principal
Title

J.M. TORRES AND ASSOCIATES, LLC

DocuSigned by: F2EE0643CC444C6...
Jacob M. Torres, PhD, P.E., CFM
Name
Managing Partner, Principal
Title

APPENDIX A

GENERAL

The Harris County Flood Control District (HCFCD) has engaged J.M. Torres and Associates, LLC. ("Engineer") to perform a feasibility study for the Sims Bayou Tributary Unit No.: C124-00-00 ("C124") (Project ID C124-00-00-P001). The intent of this feasibility study is to (1) thoroughly assess baseline condition flood hazards, (2) develop conceptual flood risk reduction alternatives, and (3) identify strategies for the implementation of flood mitigation measures. The C124 study area is located in Precinct 1 with a drainage area of approximately 1 square mile that is generally bounded by Airport Boulevard to the north near the confluence with the Sims Bayou mainstem (HCFCD Unit No. C100-00-00), Cullen Boulevard to the west, Martin Luther King Boulevard to the east, and East Orem Drive to the south (near C124 headwaters). C124 traverses south-to-north with a linear channel length of approximately 1.5 miles.

ANALYSIS OBJECTIVES

- Identify Existing Flooding Problem(s)
- Develop Flood Mitigation Alternatives
- Viable recommended plan for advancing to PER

REFERENCE MATERIALS AND STANDARDS

- Harris County Flood Control District
    - Policy and Design Criteria Manual for the Design of Flood Control and Drainage Facilities (2018).
    - Hydrology and Hydraulics Guidance Manual (2009).
    - Drawing and Graphic Standards (2016)
    - HEC-RAS Unsteady Modeling Guidelines (2018)
    - Two-Dimensional Modeling Guidelines (2018)
    - MAAPnext White Paper 06 and 11 for BDF (2019)
    - Interim Guidelines and Criteria for Atlas 14 Implementation (2019)
    - Surveying Guidelines.
    - Drawing and Graphic Standards.
    - Geotechnical Guidelines.
    - Harris County Floodplain Reference Marks (http://www.harriscountyfrm.org/).
    - HCFCD Planning Guidance Document for Problem Area Identification (2019)
- Wherever there are differences in requirements between the reference materials and standards and this scope, the Engineer shall perform services in accordance with the stricter requirements.
- Units of Measure: This project shall be prepared using English units.
- Previous Studies (to be provided by HCFCD):
- Deliverables in Electronic Format: In addition to the hard copy project deliverables required below, the Engineer shall submit electronic copies of intermediate and final reports, documents, plans and other work products on Compact Disks (CDs) or other suitable media.
    - Submit text files in Microsoft Word 97 or later version.
    - Submit design drawing files and exhibits in AutoCAD Civil 3D 2011 or later version format.
    - Submit a duplicate of text and drawing files in PDF format using Acrobat 5.0 or later version.
    - Submit GIS data supporting modeling and calibration efforts in geodatabase format.
    - Submit photographs in a digital format converted to a JPEG image and stored on the CD. Images shall have a resolution no lower than 1024 X 768.

METHODOLOGY

The H&H models developed for this feasibility study are intended to be used strictly for project evaluation purposes and are not intended to meet standards for a FEMA Letter of Map Revision (LOMR) or Physical Map Revision (PMR). However, the H&H models used in this feasibility study will aim to provide sufficient information to identify flood risks within the project limits (within neighborhoods and along C124) to be used in formulating project alternatives suitable for advancing into PER stages. Updated and/or new models may be developed as generally outlined in the guidance below. The Engineer will utilize (1) MAAPnext Sims Bayou model (2021), (2) county-wide Level-of-Service models (LOS) (2021), and (3) other available studies and reports for basing C124's model creation, but modifications and enhancements will be made to supplement an appropriate level of detail for supporting this feasibility analysis. proposed conditions methodology will follow an alternatives-based approach for screening and filtering candidate project recommendations, and ultimately – a tentatively selected recommendation.

Hydrologic Modeling – Evaluation of MAAPnext hydrologic analyses may be warranted for updating drainage areas where appropriate and basin development factor (BDF) hydrologic parameters. HEC-HMS version 4.3 (or later) will be utilized.

- *Rainfall Storm Events.* A total of six (6) storm events will be computed for Baseline and proposed conditions, i.e. 50% (2yr), 10% (10yr), 4% (25yr), 2% (50yr), 1% (100yr), 0.2% (500yr) Annual Exceedance Probability (AEP) storm events (Atlas 14 rainfall for Harris County) (24 hour duration). One or more of these storms may be substituted for another storm in coordination and with the approval from HCFCD.

- *Subbasin Areas.* MAAPnext subbasins and boundaries will be maintained as much as possible. For situations where major channels are proposed and sub-dividing the drainage areas are preferred, prior coordination with HCFCD will be conducted.

- *Routing Reaches.* All routing will be completed using unsteady HEC-RAS (version 5.0.7 or later). No routing will be conducted using HEC-HMS.

Hydraulic Modeling – Because C124 is an unstudied tributary (and not included in current MAAPnext modeling efforts), the Engineer will develop a standalone hydraulic model of the C124 tributary system for baseline conditions (Task 3) and alternatives analysis (Task 6). However, the Engineer may wish to fully integrate the C124 standalone tributary model into the Sims Bayou MAAPnext watershed-wide model for evaluating downstream impacts. To this end, a 1- and 2-dimensional (1D/2D) drainage analysis framework for the drainage area, utilizing a combination of HEC-RAS v. 5.0.7 and EPA-SWMM v. 5.1. This will also allow a determination of internal benefits of proposed recommendations for conducting a 1D/2D impact analysis for the project. HEC-RAS 2D rain-on-grid (ROG) will be used with additional break line detail at notable ridges and high points to evaluate overland runoff and general ponding areas.

ASSUMPTIONS

- HEC-HMS version 4.3 (or later) will be utilized.
- Dynamic (1D/2D) modeling will be conducted using HEC-RAS version 5.0.7 (or later).
- No baseflow will be included in H&H models.
- No infiltration will be included in H&H models.
- No model calibration/validation will be conducted.
- Tidal influences can be modeled with constant known water surface elevations.
- The Engineer can provide more detailed scope items for HCFCD.

TASKS

1. **Project Management.** The Engineer will perform project management and administration necessary for completion of the project.

    a. *Project Management Services* shall include the following:
        - Attend Project kickoff meeting
        - For a project duration of approximately eight (8) months, the Engineer will provide (deliver and prepare for) approximately:
            - Nine (9) monthly status meetings. The Engineer will provide an agenda for each meeting and follow up with meeting minutes within two (2) business days after each meeting.
            - One (1) Executive Briefing with HCFCD Leadership to provide progress. The Engineer will provide an agenda for the meeting and follow up with meeting minutes within two (2) business days after the meeting.
            - Eighteen (18) bi-weekly 30-minute conference calls with HCFCD.
            - Two (2) stakeholder engagement meetings and/or workshops
            - One (1) precinct meeting
            - One (1) public meeting
            - Routine invoicing and project performance certifications.
            - Provide monthly project status updates for documenting progress.

    b. *Coordination and Communication*. The Engineer will update the project status and gather information from local agencies including Harris County – Precinct 1, and the City of Houston. Additional coordination with Municipal Utility Districts and Homeowners Associations may be warranted. The Engineer will provide support to HCFCD staff at coordination meetings. This could include the Engineer's development of public information tools that provide an overview of the study and specific topics to be discussed in the meeting for distribution at the stakeholders meeting and online. This may include project-specific PowerPoint presentation, roll plots, informational maps, exhibits, project problem statement and a meeting agenda. Draft public information tools will be developed and provided to HCFCD for review prior to stakeholder meetings. Up to one (1) public outreach meeting with Harris County, Precinct 1, and additional stakeholders are anticipated during this feasibility study to share information about the recommended drainage improvements and to gather feedback regarding potential amenities that the precincts may be interested in pursuing.

2. **Initial Project Activities.** The Engineer will perform the following project initiation tasks as described for commencing the feasibility study.

    a. *Project Initiation*. Attend scoping meetings with HCFCD staff, initial kickoff meetings, review available data, and general project meetings with HCFCD. Read previous reports within project area, including MUD and Subdivision projects. Develop a detailed work plan, scope, fee estimate, and schedule.

    b. *Site Visits*. Up to two (2) site visits are anticipated to field verify provided survey data and to familiarize the project team with ongoing projects. This may include one (1) follow-up field visit to a targeted flooding locations to confirm model outcomes and assist with assessment of the potential flood hazard. Photographs of existing features will be completed during the field visit and organized as part of this task.

c. *Data Collection*. Data collection efforts will largely rely on prior sources compiled as part the MAAPnext study, however new sources more pertinent to the PER phase may be assimilated that include (but not limited to):
   - Economic data from previous studies
   - Survey data from previous studies
   - Environmental data from previous studies
   - Public engagement information
   - Harris County Appraisal District (HCAD) parcel data
   - Watershed boundaries as reflected in current effective hydrologic (HEC-HMS) models (provided by Harris County Flood Control District)
   - Current development trends
   - Thoroughfare Master Plans
   - Park master plans
   - Existing roads, property lines, and natural barriers
   - Recent, ongoing, and programmed HCFCD/HCED/Houston maintenance projects
   - As-built drawings for key crossings and infrastructure components.
   - Best available versions of MAAPnext models and mapping products
   - Survey: Survey services are necessary to determine the Right-of-Way (ROW) and ownership of the existing channel, and to collect topographic information to assist in the drainage study. Deed abstract work performed by HCFCD prior to the start of the survey task will be accounted for in the survey fee and utilized to the extent possible.
     - ROW Survey: Deed abstract of existing drainage ROW, adjoining properties and easements along the route. Provide a ROW map showing the existing ROW and easements of C124.
     - Topographic Survey: Collect and process topographic data as directed by the Engineer to support the drainage study. The survey data will be checked against the 2018 LiDAR by the Engineer, and the survey scope will be mostly limited to spot checking existing structures, and other areas where LiDAR data may have been obstructed by structures or heavy vegetation.

3. **Baseline Conditions Model Development.** A refined baseline conditions model will help establish accurate baseline metrics for which project recommendation comparisons can be made, reported, and communicated. C124 baseline conditions will include enhanced drainage characteristics for representing the appropriate neighborhood-level of detail based on available data. As such, the Engineer will develop an original 1D/2D model but will utilize a combination of available datasets that may include: (1) MAAPnext models, (2) County-Wide LOS models, and (3) 2018 LIDAR as the starting basis. Due to the lack of C124 stream gauges, this scope does not intend to conduct a full calibration will attempt to collate modeled results against available MAAPnext flood nodes and reported flood claims to inform model detail and results. NOTE: It is anticipated that no new topographic survey will be performed and that 2018 LIDAR for the main channel and overbanks will be sufficient to develop HEC-RAS cross sections and constructing HEC-RAS geometry files. The following subtasks are described in further detail for conducting the baseline conditions model development.

   a. *Baseline Terrain Model Updates*. The Engineer will evaluate recent developments in the watershed and identify features that should be reflected in the analysis. HCFCD maintenance projects will be reviewed and documented as to current activity and impact on watershed, which will be documented in the deliverable. If appropriate, completed maintenance projects will be reflected in hydraulic models

as an additional item. The Engineer will coordinate with HCFCD Maintenance Department Manager.

b. *2D Sheet Flow Tracing Analysis*. The MAAPnext drainage area for C124 will be reviewed with 2D sheet flow models and updated as necessary. Changes to catchments areas will be reflected in Clark Unit Hydrograph Tc & R calculations using the updated BDF approach for HCFCD. More importantly, the 2D sheet flow analysis will also be used to support identification of overflows from nearby watersheds such as HCFCD Unit No.'s C127-00-00 and C123-00-00) that need to be included as additional volume into the C124 system.

c. *Baseline Hydrology*. The MAAPnext HEC-HMS model will serve as the starting basis. The HEC-HMS subbasin element for C124 will be subdivided as appropriate for developing the necessary spatial distribution of boundary conditions for the hydraulic analysis. Hydrology apportionment will focus on either one of the two approaches in coordination with HCFCD, (1) MAAPnext HEC-HMS flows for C124 will be ratioed based on drainage area, or (2) composite or area-weighted BDFs will be quantified, and Clark Unit Hydrograph recomputed for subdivided drainage areas.

d. *Baseline Hydraulics*. The Engineer will cut cross-sections based on 2018 LIDAR. The Engineer will update the hydraulic model to incorporate channel bridge crossings – as gathered from the County-wide LOS effort – and will be used to supplement the 2018 LIDAR. This will come with enhanced 2D mesh work and break lines to capture topographic detail in the overland.

e. *H&H Analyses*. Internal 2D boundary conditions will be applied at the neighborhood and catchment to better distribute flow and evaluating overland "bottlenecks" in urban catchment collection systems. The project area H&H models will be simulated for six (6) storms, i.e. 50%, 10%, 4%, 2%, 1%, and 0.2% AEPs (2yr, 10yr, 25yr, 50yr, 100yr, and 500yr storms) Atlas 14 rainfall conditions. Consideration will be made to incorporate C124 area models into a master 1D/2D watershed-wide model developed as part of MAAPnext, but only for those storms that coincide with available MAAPnext storms (i.e. 2yr AEP not a standard MAAPnext storm). This task incorporates time for model simulation and stabilization for all plans.

f. *QA/QC*. The Engineer will conduct internal QA/QC documentation pertinent to the H&H analyses.

4. **Baseline Conditions Flood Hazard Assessment.** Based on the modeled baseline conditions, problem area locations within the watershed will be identified possessing notable drainage deficiencies, the flood frequency event at which it consistently occurs, and the cause of the flooding (riverine, tailwater, or impeded overland flows). The Engineer will perform one (1) follow-up field visit to specific flooding locations to confirm model outcomes and assist with an assessment of potential hazards and note the following as applicable: (1) structures such as fire stations, medical facilities, schools, commercial, and residential use types; (2) critical water and wastewater facilities; (3) critical mobility infrastructure; (4) other flood control facilities. In addition, the following subtasks will be conducted.

a. *Problem Area Assessment*. Problem areas will be identified based on the baseline conditions model output and according to the following metrics:
   i. *Flooded Structures*. Structural data will be based on the best available structure inventory data. Estimates for flooded structures will be based on methods described in HCFCD's Watershed Planning Projects Guidance document. These methods may be adjusted slightly to accommodate more storms.
   ii. *Inundated Roadways.* Miles of inundated roadway will be computed for all six (6) storm events. This will help assess the level of mobility under certain storm frequencies.
   iii. *Area of Inundation*. Estimated acreage of land inundation will be computed for all six (6) storm events.
   iv. *Existing LOS*. Existing LOS will be characterized based on the channel's ability to convey the highest flow corresponding to that storm.

b. *Constraints Evaluation.* As part of the field visits and desktop analyses, the Engineer – in coordination with the HCFCD – can identify and describe visible horizontal, vertical, and overhead infrastructure, public/private utilities, and/or encroachments into Harris County or HCFCD ROW that may represent a fixed constraint, require relocation, or require some other action for conflict resolution. This may include constraints that appear to present a risk to implementation of flood mitigation, including environmental concerns, coordination with local/regional/federal jurisdictional entities, approval and permitting needs, engagement with community stakeholders, and coordination with the City of Houston.

c. *QA/QC*. The Engineer will conduct internal QA/QC documentation pertinent to the H&H analyses.

d. *Interim Deliverable(s) – Technical Memorandum No. 1. The Engineer will submit one (1) electronic technical memorandum to HCFCD with appropriate maps, exhibits, and tables describing assumptions, methodology, constraints, data sources, metrics, evaluation criteria. The deliverables will include executable models, GIS files, and the full technical memo in PDF file. This task includes effort associated with one (1) round of review, comments, and revisions to the technical memo and deliverables. This deliverable may be incorporated as a chapter or appendix in the final Feasibility Study Report.*

5. **Development of Flood Mitigation Concepts.** The baseline conditions model development and flood hazard assessment will be used to inform high-level determination on proposed project viability. Viable concepts will be selected and advanced into detailed alternatives analyses (Task 6).

   a. Compile Previous Reports and Projects. Prior to detailed modeling, the Engineer will evaluate the recommendations from previous drainage studies and engineering reports provided by HCFCD. Unimplemented flood mitigation recommendations and concepts, that remain valid for alleviating the current flooding problems and align with the objectives of the current watershed planning study, may be considered. The Engineer will identify on-going or planned projects and incorporate requests or suggestions from stakeholders that align with stated objectives for this feasibility study. These prior recommendations and concepts will be considered for concept development.

b. Proposed Concept Development. Based on model output from previous reports, reported flood claims, insights from MAAPnext and County-Wide LOS, existing Right-of-Way (ROW) and improvement corridors, constructability considerations, and HCFCD input; improvement concepts will be derived. These improvements will not be fully supported by detailed modeling but will serve as an interim rapid screening process – in coordination with HCFCD – for selecting viable candidates for Detailed Alternatives Analysis. Up to five (5) improvement concepts will be developed in the form of GIS and sketch tools. In addition, qualitative assessments on costs that consider land acquisition, utility relocation, pipeline relocations, bridge/culvert replacements/modifications, construction costs, and environmental mitigation may be incorporated to facilitate the screening process. Up to three (3) concepts will be selected and advanced to detailed alternatives analysis (Task 6).

c. *Stakeholder Workshop #1*. The Engineer and HCFCD will meet with key stakeholders to convey the initial Baseline Condition results and Early Flood Mitigation Concepts for gathering feedback.

6. **Detailed Alternatives Analysis.** The Engineer will analyze up to three (3) detailed alternatives stemming from the development of flood mitigation concepts. These alternatives will be coordinated with HCFCD, but may be guided based on a combination of (1) LOS-Driven (targeted versus practical obtainment), (2) available HCFCD ROW, (3) design constraints

a. *Alternatives Analyses*. Each of the three (3) alternatives may contain up to an additional three (3) additional channel/detention variations selected at the Engineer's discretion and judgement based on hydraulic insights from computed models. These variations may include:
   - Channel Improvements: traditional grass-lined, concrete-lined, rectangular sections, hybrid sections
   - Stormwater Detention: Offline, inline, wet/dry bottom basins. Engineer will evaluate whether a wet-bottom basin is feasible based on available water sources for maintaining a permanent pool.
   - Storm sewer: Subsurface storm sewer, box/round culverts

   Preference will be given to alternatives and variations that best (1) mitigates existing flood risks, (2) maximizes existing HCFCD ROW and/or use of vacant lots, (3) minimizes constructability concerns, (4) adheres to HCFCD PCPM design criteria, and (5) minimizes environmental impacts. This task incorporates time for model simulation and stabilization for all plans.

b. *Alternative Performance Metrics.* For each of the three (3) alternatives [and for a single alternative variation] project performance metrics will be computed for:
   i. *Flooded Structures*. Structural data will be based on the best available structure inventory data. Estimates for flooded structures will be based on methods described in HCFCD's Watershed Planning Projects Guidance document. These methods may be adjusted slightly to accommodate more storms.
   ii. *Inundated Roadways.* Miles of inundated roadway will be computed for all six (6) storm events. This will help assess the level of mobility under certain storm frequencies.
   iii. *Area of Inundation*. Estimated acreage of land inundation will be computed for all six (6) storm events.
   iv. *Existing LOS*. Existing LOS will be characterized based on the channel's ability to convey the highest flow corresponding to that storm.

c. *Alternative Scoring, Screening, and Ranking*. The Engineer will apply a scoring matrix based on a methodical weighting approach in coordination with HCFCD,; with potential input from Precincts 1. Some attributes may be weighted more heavily than others for final alternative recommendation. Including performance metrics, no more than ten (10) attributes will be considered as part of the scoring matrix. Proposed Projects will be ranked accordingly based on this updated scoring matrix. Other factors such as the social vulnerability index (SVI) may be considered.

d. *QA/QC*. The Engineer will conduct internal QA/QC documentation pertinent to the H&H analyses.

7. **Preliminary Impacts Analyses.** The Engineer will evaluate hydraulic impacts for the *Tentatively Recommended Plan*.

a. *Preliminary Impacts Analyses.* The Engineer will evaluate 1D and 2D hydraulic impacts (i.e. 1D water surface profiles and 2D ponding depths) for the *Tentatively Recommended Plan*. The Engineer may either wish to integrate the C124 standalone tributary model into the (1) full Sims Bayou MAAPnext watershed-wide model, or (2) some reasonable truncated version of the Sims Bayou MAAPnext model for evaluating downstream impacts. Potential adverse impacts will be quantified for 100yr, 10yr, and 2yr storm events only. One of these storms may be substituted for another storm in coordination and approval from HCFCD. Modifications to the recommended plan will be determined and implemented as needed for mitigating impacts. Such modifications can include (but are not limited to) changes to channel geometry, proposed detention basin's outlet structure configuration, and/or minor adjustments to recommendation specifications. Following a No Adverse Impact determination, the *Tentatively Recommended Plan* will be re-labeled to *Recommended Plan.* This task also includes time for QA/QC.

b. *Interim Deliverable(s) – Techniciannical Memorandum No. 2.* The Engineer will submit one (1) electronic technical memorandum to HCFCD with appropriate maps, exhibits, and tables describing assumptions, methodology, constraints, data sources, metrics, evaluation criteria, and the preliminary impact analyses. The deliverables will include executable models, GIS files, and the full technical memo in PDF file. This task includes effort associated with one (1) round of review, comments, and revisions to the technical memo and deliverables. This deliverable may be incorporated as a chapter or appendix in the final Feasibility Study Report.

8. **Planning-Level Cost Estimates.** The Engineer will develop refined planning-level cost estimates for the recommended plan. These will include costs associated with buyout areas using available HCAD information or cost per square foot provided by HCFCD Property Management. The Engineer will provide tables showing HCFCD unit item codes, descriptions, unit costs, and quantified for each proposed flood mitigation project. The Engineer will include engineering and contingency as a percentage of construction cost, as well as anticipated costs for utility relocation, bridge modification or replacement, operation, and maintenance costs. Funding sources will be identified if known and/or provided by HCFCD.

9. **Recommended Plan – Implementation Strategy.** The Engineer will develop a project implementation strategy for the recommended plan. This will include a planning-level schedule that can identify critical path elements and timing constraints that may influence

project implementation. Such critical elements may include identification of key lots (vacant or potential buyouts) for near-turn ROW acquisition. Other items may involve key processes that could impose delays on the overall project life cycle, such as wait time for approved jurisdictional determination (AJD). The Engineer can also identify potential alternative funding sources related to applicable state and federal funding assistance programs and/or consider currently programmed and future funding sources.

10. **Final Briefings and Workshops**. The following meetings will discuss the near final recommendation:

    a. *Stakeholder Workshop #2.* The Engineer and HCFCD will meet with key stakeholders to provide an update on the recommended plan and solicit feedback. Following stakeholder approval, the recommended plan will be labeled the "*Recommended Plan*."

    b. *Precinct Briefing.* The Engineer will meet with the Precinct and the "Recommended Plan" will be presented and discussed with the Precinct. This will be done with appropriate maps, exhibits, and tables for presenting findings from the detailed alternatives analysis, planning-level cost estimates, and implementation strategy.

    c. *HCFCD Executive Briefing*. This meeting will be treated as an Executive briefing in which the Engineer will meet with HCFCD Leadership to communicate the near final recommendations, planning-level cost estimates, and implementation strategy.

    d. *Public Meeting.* The Engineer will assist HCFCD in holding a public meeting to provide an update on the recommended plan and benefits. The Engineer will provide content and presentation support.

11. **Final Deliverables & Packaging.** The following items will be compiled into final deliverables.

    a. *Draft Study Report*. A draft feasibility study report will be produced to document the above work efforts. One (1) electronic copy of the Draft report will be submitted to HCFCD and will be revised per one round of HCFCD comments.

    b. *Final Study Report*. One (1) electronic copy of the final feasibility report will be submitted to HCFCD and revised per one round of HCFCD comments. The final report will detail study background, project recommendation, results of hydrologic and hydraulic models, detention basin recommendations, channel alignment and ROW recommendations, preliminary impact analysis, and conclusions. Inundation maps showing potential floodplain reduction for the 50% (2yr), 10% (10yr), 4% (25yr), 2% (50yr), 1% (100yr), and 0.2% (500yr) will be produced. The final report will include text, tables, exhibits, drawings, analysis, calculations, sketches, cost estimates and exhibits to support an implementation plan, and the recommendations.

    c. *Supporting Information*. The following supporting information and data will be delivered.
        i. Provide word processing in Microsoft Word 2010 or later version.
        ii. Submit spreadsheets in Microsoft Excel 2010 or later version.
        iii. Submit hydrologic and hydraulic models and the versions of HEC-HMS and HEC-RAS specified by HCFCD. Submit drawing files and exhibits

compatible with AutoCAD R2013 or later and ESRI ArcGIS version 10.1 or later.

iv. Submit a duplicate of text, tables, spreadsheets, and drawing files in PDF format using Acrobat 9.0 or later.

v. Submit photographs in a digital format converted to a JPEG image and stored on the flash drive. Images shall have a resolution not lower than 1024 X 768.

12. **Subsurface Utility Engineering**. A significant number or pipelines cross C124 on the south end of the channel near the channel outfall. If it is determined that the pipelines are a cause of the existing flooding conditions, it may be necessary to perform a SUE investigation to understand more about the pipelines and the options and cost to relocate them. This additional service line item represents a budget for performing this SUE investigation. The level of SUE will be determined at the time of scoping but is budgeted in part of Level C SUE.

13. **Environmental Services**. The HCFCD in-house environmental team will provide a Watershed Environmental Baseline (WEB) Map Data Summary Tool (DST) of the study area. The additional services line item represents efforts by a 3rd party consultant to conduct a Phase I ESA (potentially a Phase II ESA), wetland and ordinary highwater mark (OHWM) delineation, cultural resources survey, threatened and endangered (T&E) survey, USACE permitting, any additional environmental services.

14. **Schematic Drainage Plans.** A 20% level of design layout may need to be prepared for the Recommended Plan. The schematic based layouts will include the general improvement layouts and will identify the critical components such as potential utility conflicts as follows:

    a. 20% Plan and Profile plans: Using available survey data layout a preliminary alignment of the recommended storm drainage enclosure option.

    b. Existing and Proposed Typical Sections: Development of typical sections that will demonstrate constructability and describe concept.

15. Other tasks Engineer determined potentially needed for the project, provide justifications and LOE

16. **Other Potential Services.** The placeholder has been included in this proposal for additional contingency services. The specific level of effort is to be provided as needed and specifically authorized by the HCFCD and agreed to by the Engineer, including (but not be limited to) the following activities which were not identified in the scope of work under the previous tasks.

    a. Development of improved hydrologic and hydraulic modeling data for any additional drainage infrastructure found to have deficiencies which need to be addressed.

    b. Additional stakeholder or special meetings as may be required by the HCFCD.

    c. Collection of more detailed environmental or survey data, including field investigations to confirm the potential for conflicts and costs associated with utility relocations and/or permitting and mitigation of other sensitive conditions.

    d. Development of additional alternatives beyond the initial recommended alternatives approved for analysis by the HCFCD.

e. Development of design details for additional immediate improvement projects beyond the number currently identified in the scope of work.

f. The Engineer shall make requested revisions to documents and materials prepared under this Agreement. The Engineer also shall provide such engineering services necessary for such revision, when they are not necessitated by any fault of the Engineer and such revisions are inconsistent with approvals or instructions previously given by the HCFCD or are made necessary by the enactment or revision of codes, laws, or regulations issued subsequent to the preparation of such documents.

THE STATE OF TEXAS §
§
COUNTY OF HARRIS §

The Commissioners Court of Harris County, Texas, convened at a meeting of said Court at the Harris County Administration Building in the City of Houston, Texas, on _____, with the following members present, to-wit:

Lina Hidalgo	County Judge
Rodney Ellis	Commissioner, Precinct No. 1
Adrian Garcia	Commissioner, Precinct No. 2
Tom S. Ramsey, P.E.	Commissioner, Precinct No. 3
R. Jack Cagle	Commissioner, Precinct No. 4

and the following members absent, to-wit: _____, constituting a quorum, when among other business, the following was transacted:

ORDER AUTHORIZING EXECUTION OF AN AGREEMENT FOR ENGINEERING SERVICES BETWEEN THE HARRIS COUNTY FLOOD CONTROL DISTRICT AND J.M. TORRES AND ASSOCIATES, LLC

Commissioner _____ introduced an order and made a motion that the same be adopted. 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
AYES:	Judge Lina Hidalgo	☐	☐	☐
NAYS:	Comm. Rodney Ellis	☐	☐	☐
ABSTENTIONS:	Comm. Adrian Garcia	☐	☐	☐
	Comm. Tom S. Ramsey, P.E.	☐	☐	☐
	Comm. R. Jack Cagle	☐	☐	☐

The County Judge thereupon announced that the motion had duly and lawfully carried and that the order had been duly and lawfully adopted. The order thus adopted follows:

WHEREAS, the District desires to evaluate the Sims Bayou Tributary Harris County Flood Control Unit C124-00-00, hereinafter called the "Project"; and

WHEREAS, the District desires that the Engineer provide Engineering Services for the Project; and

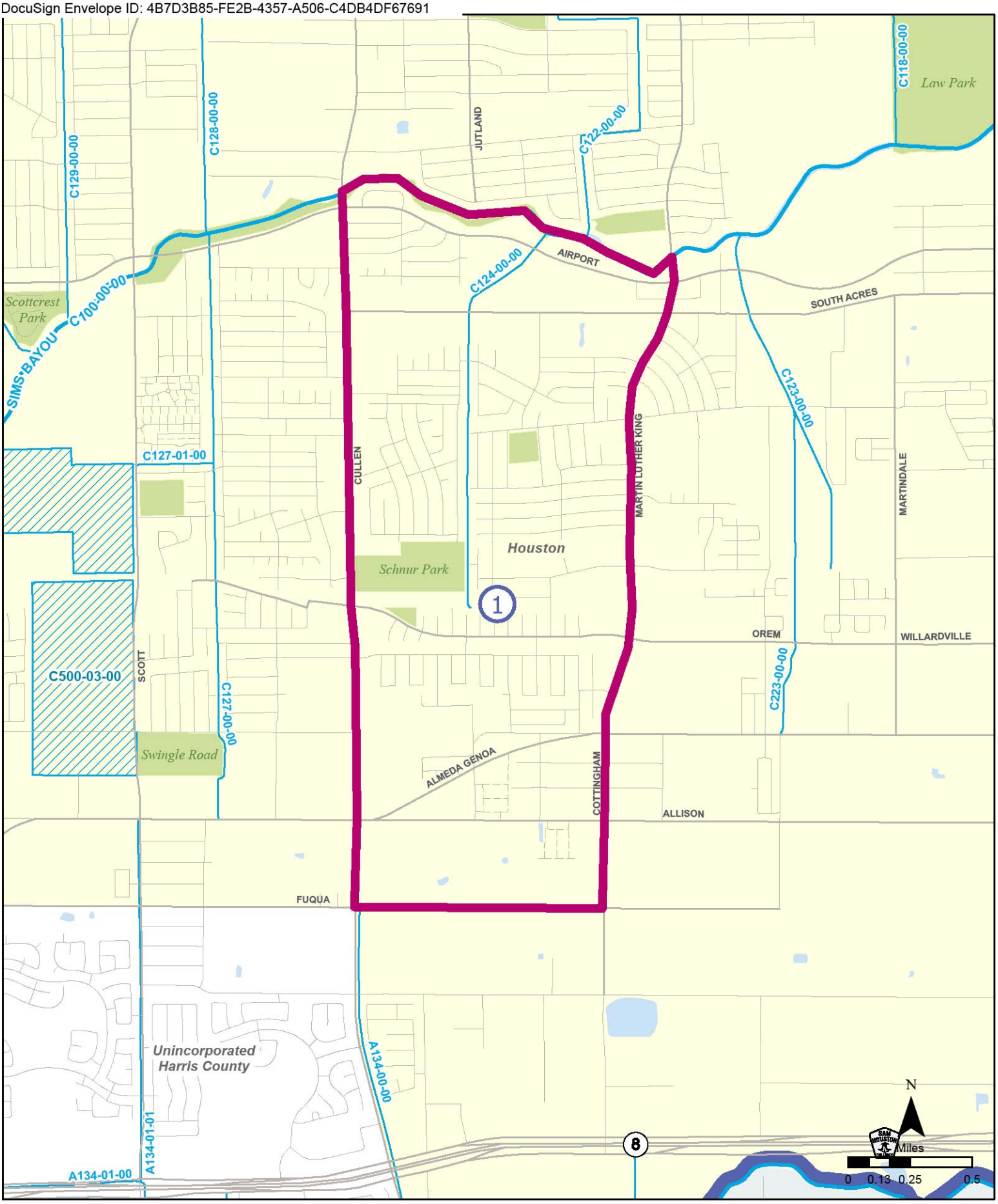
WHEREAS, the Engineer represents that it is capable and qualified to perform the various services that may be required.

NOW, THEREFORE, BE IT ORDERED BY THE COMMISSIONERS COURT OF HARRIS COUNTY, TEXAS THAT:

Section 1: The recitals set forth in this order are true and correct.

Section 2: Exemption from the County Purchasing Act under Texas Local Government Code § 262.024(a)(4) is hereby granted.

Section 3: County Judge Lina Hidalgo is hereby authorized to execute for and on behalf of the Harris County Flood Control District, an Agreement by and between the Harris County Flood Control District and J.M. Torres and Associates, LLC, for a fee to be paid by the District of $350,000.00, said Agreement being incorporated herein by reference for all purposes as though fully set forth verbatim herein.



HARRIS COUNTY FLOOD CONTROL DISTRICT

Project ID: C124-00-00-P001

Watershed: Sims Bayou
Precinct: 1