

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 **Isani Consultants, L.P.**, a Texas limited partnership, hereinafter called "Engineer."

WITNESSETH

WHEREAS, the District desires a preliminary engineering report to analyze alternatives to channel conveyance along Harris County Flood Control Units O119-00-00 and O200-00-00, hereinafter called the "Project"; and

WHEREAS, the District desires that the Engineer perform Engineering Services in connection with the Project; and

WHEREAS, the Engineer represents that it is capable and qualified to perform the services and prepare the items set forth herein.

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

SECTION I

SCOPE OF AGREEMENT

The Engineer agrees to perform professional engineering services in connection with the Project, as stated in the sections to follow, and for rendering such services the District agrees to pay the Engineer compensation, as stated in the sections to follow.

SECTION II

CHARACTER AND EXTENT OF SERVICES

The Engineer shall perform the services with regard to the Project listed in Appendix A hereto, hereinafter referred to as "Basic Services." The services furnished hereunder shall be completed to the satisfaction of the District.

SECTION III

ADDITIONAL SERVICES

Upon written request from the Executive Director of the District or his designee ("Director"), the Engineer shall furnish Additional Services for the Project, as described in Appendix B hereto. All Additional Services shall be completed to the satisfaction of the District.

It is expressly understood and agreed that the Engineer shall not furnish any of the Additional Services without first obtaining written authorization from the Director. The District shall have no

obligation to pay for Additional Services that have been rendered without prior written authorization from the Director.

SECTION IV

TIME FOR PERFORMANCE

All Basic Services shall be completed within 180 calendar days of the notice to proceed. It is understood and agreed that the time during which the Engineer's work is under review by the District shall not be included in the calendar day time allowed for completion. All Additional Services shall be completed within the time set forth in the applicable work authorization.

Where the Director determines, in his sole discretion, that good cause exists, the Director may extend the time for performance of Basic Services or Additional Services. Any extensions of time granted by the Director shall be in writing.

SECTION V

THE ENGINEER'S COMPENSATION

For and in consideration of the Basic Services performed by the Engineer, as set forth in Section II, the District shall pay the Engineer a fixed fee of \$189,510.00, with monthly payments toward same based on the percentage of each task completed during the preceding calendar month, subject to acceptance by the District. The fee allocation by task to be used for billing purposes is as follows:

	<u>Amount</u>
1 Preliminary Engineering Report	\$189,510.00

Adjustments to the fee allocation may be made within the Total Basic Services Fee with prior review and written approval by the Director.

The District shall reimburse the Engineer according to the following rates for Additional Services provided pursuant to Section III by employees of the Engineer:

<u>Responsibility</u>	<u>Maximum Hourly Rate</u>
Principal	\$240.00
Senior Project Manager	\$210.00
Project Manager	\$185.00
Senior Project Engineer	\$170.00
Project Engineer.....	\$150.00
QA/QC Engineer	\$165.00
Senior Civil Engineer.....	\$170.00
Civil Engineer	\$130.00
Engineer-In-Training (EIT)	\$120.00
Senior Designer	\$145.00
Designer.....	\$130.00
Project Coordinator	\$115.00
CAD Technician	\$105.00
GIS Technician.....	\$105.00
Document Control	\$105.00
Administrative Assistant	\$ 84.00

The District may also authorize Additional Services to be compensated on a fixed fee basis upon acceptance by the Engineer. The District shall pay the Engineer a prorated amount of the fixed fee monthly, based on the percentage of the task completed during the preceding calendar month, subject to acceptance by the District. Where authorization of Additional Services is made on a fixed fee basis, the hourly rates set out above shall not apply.

Notwithstanding anything that may be construed to the contrary herein, in no event shall the Engineer be entitled to compensation and reimbursement in excess of \$173,850.00 for performing Additional Services hereunder. Nor shall the Engineer be required to perform Additional Services hereunder after becoming entitled to compensation and reimbursement of \$173,850.00 for Additional Services.

Adjustments to the Additional Services budget allocation may be made with written approval by the Director.

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 in Section II, 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 expenses 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 II, 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.

SECTION VI

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 Harris County Auditor and in compliance with Section V, setting forth the services completed and the compensation due for the same, plus the amounts payable under Section III (Additional Services) 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 the 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 VII

TERMINATION

The Director 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 that proportion of the total fee which the services actually performed under this Agreement bear to the total services called for herein, 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 VIII

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:

Isani Consultants, L.P.
10448 Westoffice Drive
Houston, Texas 77042
Attn: Bobby V.P. Singh

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 IX

LIMIT OF APPROPRIATION

The Engineer clearly understands and agrees, such understanding and agreement being of the absolute essence to this Agreement, that District shall have available the total maximum sum of \$363,360.00 specifically allocated to fully discharge any and all liabilities that may be incurred by 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 X

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 the 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 XI

PUBLIC CONTACT

The 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 Project shall be referred to the Director.

SECTION XII

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, he 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 it 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. § 2271.002, 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.

SECTION XIII

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 XIV

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 XV

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/forms/CIQ.pdf). 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 XVI

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 XVII

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 XVIII

OWNERSHIP OF PLANS, COPYRIGHT

The District shall be the absolute and unqualified owner of any information, programs, Mylar reproductions, 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 reproductions, 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 reproductions, 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 XIX

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.

EXECUTED on _____.

APPROVED AS TO FORM:

HARRIS COUNTY FLOOD CONTROL
DISTRICT


CHRISTIAN D. MENEFE
Harris County Attorney

DocuSigned by:

By _____
LAURA FIORENTINO CAHILL
Assistant County Attorney

By _____
LINA HIDALGO
County Judge

ATTEST:

DocuSigned by:

E9CFE0AC231D4CD...


Rahul Menon

Name

Project Manager

Title

ISANI CONSULTANTS, L.P.

DocuSigned by:

E9CFE0AC231D4CD...

Bobby V.P. Singh

Name

Principal

Title

APPENDIX A

GENERAL SCOPE OF BASIC SERVICES

GENERAL

The intent of the basic services is to prepare construction documents for O119/O200 Channels Improvements (Project ID: O200-00-00-E001). The scope of services for basic services is as follows:

Reference Materials and Standards:

- Harris County Flood Control District:
 - Criteria Manual for the Design of Flood Control and Drainage Facilities in Harris County.
 - Policy and Design Criteria Manual for the Design of Flood Control and Drainage Facilities.
 - Surveying Guidelines.
 - HCFCD Drawing and Graphic Standards.
 - Geotechnical Guidelines.
 - Harris County Floodplain Reference Marks ([http://www.harriscountyfrm.org/.](http://www.harriscountyfrm.org/))
- 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.
- 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 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.
- Project Management during Basic Services: Perform Project management and administration necessary for completion of the Project. Services shall include, but are not limited to, the following:
 - Provide sub-consultant contract management.
 - The Engineer shall not subcontract any part of its Contract without approval by the Director.
 - The Engineer shall evaluate Sub-Consultant proposals to the same extent as if the services were performed by the Engineer.
 - The Engineer shall be responsible for services performed by Sub-Consultants to the same extent as if the services were performed by the Engineer.
 - The Engineer shall replace any Sub-Consultant when requested to do so by the Director, who shall state the reasons for such request.
 - The Engineer shall provide the Director with a copy of any of its Consultant subcontracts at the Director's request.

- Attend Project kickoff meeting and monthly status meetings. Provide an agenda for each meeting and follow up with meeting minutes after each meeting.
- Provide monthly Project Status updates to document progress.
- Develop and maintain a Project schedule in Microsoft Project format. Submit schedule updates on a monthly basis.
- Coordinate with utility companies to obtain permits or permission to cross pipeline rights-of-ways.

1. PRELIMINARY ENGINEERING REPORT

Prepare a comprehensive Preliminary Engineering Report (PER) detailing up to three (3) alternatives and providing a recommended solution for the implementation of proposed channel improvements. Engineering drawings/ and exhibits included in the report shall be in accordance with HCFCD's latest Drawing and Graphic Standards, and Surveying Guidelines. The report preparation shall follow Quality Assurance/Quality Control (QA/QC) procedures that meet or exceed the District's own requirements (written procedure available upon request). The Engineer may choose to use the District's procedures, or submit their own for approval prior to proceeding with design. Prepare a comprehensive Project schedule to be maintained at all times and submitted with monthly invoices. The document shall be prepared to include the following as a minimum, and additional report requirements and applicable subject matter can be found in Section 19 of the District's Policy Criteria & Procedure Manual.

- A. Evaluation of existing site conditions: Conduct onsite review of existing site conditions, existing problem and identify any constraints. Site photographs will be taken and organized as part of the PER. Research/collect/review previous drainage studies, wetland delineation reports, construction plans, public and private utility data, right-of-way information and adjacent land use. Review on-going and planned projects within and adjacent to the project area. Close coordination will be made with public agencies such as HCED. Perform new topographic surveys, geotechnical investigations, environmental and archeological assessments and utility investigations as necessary. Utility Contact and Utility Conflict Tables will be prepared and included as part of the PER.
- B. Hydrologic and Hydraulic (H&H) Analysis: Conduct required H&H analyses to assess existing conditions and proposed conditions for three (3) alternatives. Analyses should be performed for the 2-year (50% annual exceedance probability (AEP)), 10-year (10% AEP), 25-year (4% AEP), 100-year (1% AEP), and 500-year (0.2% AEP) storm events.
 - 1) The existing condition for HCFCD Unit Nos. O119-00-00 and O200-00-00 will be evaluated based on updated survey data. Possible conveyance issue within these channels shall be identified. Based on the Advanced Feasibility Study performed by HALFF, relocation of the south side of the berm top would help to lower the water surface elevations (WSEs) within the channels and provide additional storage volume & increased conveyance capacity. Different alternatives for the channel widening improvements will be evaluated based on updated survey data. Proposed improvements in the Highlands Mobile Estates (HME) neighborhood drainage study performed by HT&J will be incorporated into the proposed RAS 2D model to produce a more accurate structural benefit estimation within the neighborhood based on surveyed slab elevation. Subsequently, based on a cost benefit analysis of these channel improvements, recommendations will be provided.
 - 2) Existing conditions in the roadside ditch between HCFCD Unit Nos. G103-03-00 and O200-00-00 along Barbers Hill Rd will be evaluated. During extreme storm events, part of the peak flows within HCFCD Unit No. O200-00-00 is routed to HCFCD Unit

- No. G103-03-00 via this roadside ditch. Conveyance capacity in this ditch will be reviewed and issues shall be identified. Possible proposed alternatives will be evaluated to minimize the impact on this ditch during extreme events and improve conveyance. Based on a cost benefit analysis, recommendations will be proposed.
- 3) H&H analysis would be performed to ensure that this project does not adversely impact the surrounding water surface elevations for up to and including the 500-year storm event.
- C. Proposed Alternatives and Analysis: Provide quantification of the analysis results/benefits for each alternatives with a detailed narrative and supporting tables, exhibits, and appendices. All alternatives should include an assessment of the benefits for each storm event including, but not limited to:
- 1) Number of parcels/structures impacted;
 - 2) Inundated area (including regulatory floodplain) impacted; and,
 - 3) Miles of roadway impacted
- Address existing and proposed right-of-way requirements. Provide corresponding engineering cost estimates with right-of-way acquisition costs and construction management costs as necessary.
- D. Findings and Recommendations: Compare the report alternatives, present factors such as operation, cost, constructability, utility conflicts, maintenance requirements, safety and aesthetics. Provide recommended alternative for final design and implementation.
- E. Preliminary Design Plans: Following selection of a recommended alternative, prepare preliminary 30 percent design plans.
- F. Deliver three (3) final report hard copies, a pdf file of the report plans, exhibits and CAD files as requested by the HCFCD Project Manager.

APPENDIX B

GENERAL SCOPE OF ADDITIONAL SERVICES

GENERAL

The intent of the basic services is to prepare construction documents for O119/O200 Channels Improvements (Project ID: O200-00-00-E001). The scope of services for basic services is as follows:

Reference Materials and Standards:

- Harris County Flood Control District:
 - Criteria Manual for the Design of Flood Control and Drainage Facilities in Harris County.
 - Policy and Design Criteria Manual for the Design of Flood Control and Drainage Facilities.
 - Surveying Guidelines.
 - HCFCD Drawing and Graphic Standards.
 - Geotechnical Guidelines.
 - Harris County Floodplain Reference Marks (<http://www.harriscountyfrm.org/>)
- 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.
- 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 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.
- Project Management during Basic Services: Perform Project management and administration necessary for completion of the Project. Services shall include, but are not limited to, the following:
 - Provide sub-consultant contract management.
 - The Engineer shall not subcontract any part of its Contract without approval by the Director.
 - The Engineer shall evaluate Sub-Consultant proposals to the same extent as if the services were performed by the Engineer.
 - The Engineer shall be responsible for services performed by Sub-Consultants to the same extent as if the services were performed by the Engineer.
 - The Engineer shall replace any Sub-Consultant when requested to do so by the Director, who shall state the reasons for such request.

- The Engineer shall provide the Director with a copy of any of its Consultant subcontracts at the Director's request.
- Attend Project kickoff meeting and monthly status meetings. Provide an agenda for each meeting and follow up with meeting minutes after each meeting.
- Provide monthly Project Status updates to document progress.
- Develop and maintain a Project schedule in Microsoft Project format. Submit schedule updates on a monthly basis.
- Coordinate with utility companies to obtain permits or permission to cross pipeline rights-of-ways.

2. PRELIMINARY ENGINEERING REPORT

Prepare a comprehensive Preliminary Engineering Report (PER) detailing up to three (3) alternatives and providing a recommended solution for the implementation of proposed channel improvements. Engineering drawings/ and exhibits included in the report shall be in accordance with HCFCD's latest Drawing and Graphic Standards, and Surveying Guidelines. The report preparation shall follow Quality Assurance/Quality Control (QA/QC) procedures that meet or exceed the District's own requirements (written procedure available upon request). The Engineer may choose to use the District's procedures, or submit their own for approval prior to proceeding with design. Prepare a comprehensive Project schedule to be maintained at all times and submitted with monthly invoices. The document shall be prepared to include the following as a minimum, and additional report requirements and applicable subject matter can be found in Section 19 of the District's Policy Criteria & Procedure Manual.

- A. Evaluation of existing site conditions: Conduct onsite review of existing site conditions, existing problem and identify any constraints. Site photographs will be taken and organized as part of the PER. Research/collect/review previous drainage studies, wetland delineation reports, construction plans, public and private utility data, right-of-way information and adjacent land use. Review on-going and planned projects within and adjacent to the project area. Close coordination will be made with public agencies such as HCED. Perform new topographic surveys, geotechnical investigations, environmental and archeological assessments and utility investigations as necessary. Utility Contact and Utility Conflict Tables will be prepared and included as part of the PER.
- B. Hydrologic and Hydraulic (H&H) Analysis: Conduct required H&H analyses to assess existing conditions and proposed conditions for three (3) alternatives. Analyses should be performed for the 2-year (50% annual exceedance probability (AEP)), 10-year (10% AEP), 25-year (4% AEP), 100-year (1% AEP), and 500-year (0.2% AEP) storm events.
 - 1) The existing condition for HCFCD Unit Nos. O119-00-00 and O200-00-00 will be evaluated based on updated survey data. Possible conveyance issue within these channels shall be identified. Based on the Advanced Feasibility Study performed by HALFF, relocation of the south side of the berm top would help to lower the water surface elevations (WSEs) within the channels and provide additional storage volume & increased conveyance capacity. Different alternatives for the channel widening improvements will be evaluated based on updated survey data. Proposed improvements in the Highlands Mobile Estates (HME) neighborhood drainage study performed by HT&J will be incorporated into the proposed RAS 2D model to produce a more accurate structural benefit estimation within the neighborhood based on surveyed slab elevation. Subsequently, based on a cost benefit analysis of these channel improvements, recommendations will be provided.
 - 2) Existing conditions in the roadside ditch between HCFCD Unit Nos. G103-03-00 and O200-00-00 along Barbers Hill Rd will be evaluated. During extreme storm events,

- part of the peak flows within HCFCD Unit No. O200-00-00 is routed to HCFCD Unit No. G103-03-00 via this roadside ditch. Conveyance capacity in this ditch will be reviewed and issues shall be identified. Possible proposed alternatives will be evaluated to minimize the impact on this ditch during extreme events and improve conveyance. Based on a cost benefit analysis, recommendations will be proposed.
- 3) H&H analysis would be performed to ensure that this project does not adversely impact the surrounding water surface elevations for up to and including the 500-year storm event.
- C. Proposed Alternatives and Analysis: Provide quantification of the analysis results/benefits for each alternatives with a detailed narrative and supporting tables, exhibits, and appendices. All alternatives should include an assessment of the benefits for each storm event including, but not limited to:
- 1) Number of parcels/structures impacted;
 - 2) Inundated area (including regulatory floodplain) impacted; and,
 - 3) Miles of roadway impacted
- Address existing and proposed right-of-way requirements. Provide corresponding engineering cost estimates with right-of-way acquisition costs and construction management costs as necessary.
- D. Findings and Recommendations: Compare the report alternatives, present factors such as operation, cost, constructability, utility conflicts, maintenance requirements, safety and aesthetics. Provide recommended alternative for final design and implementation.
- E. Preliminary Design Plans: Following selection of a recommended alternative, prepare preliminary 30 percent design plans.
- F. Deliver three (3) final report hard copies, a pdf file of the report plans, exhibits and CAD files as requested by the HCFCD Project Manager.

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 ISANI CONSULTANTS, L.P.**

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	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
NAYS:	Comm. Rodney Ellis	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
ABSTENTIONS:	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 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 a preliminary engineering report to analyze alternatives to channel conveyance along Harris County Flood Control Units O119-00-00 and O200-00-00, hereinafter called the "Project"; and

WHEREAS, the District desires that the Engineer perform Engineering Services in connection with the Project; and

WHEREAS, the Engineer represents that it is capable and qualified to perform the services and prepare the items set forth herein.

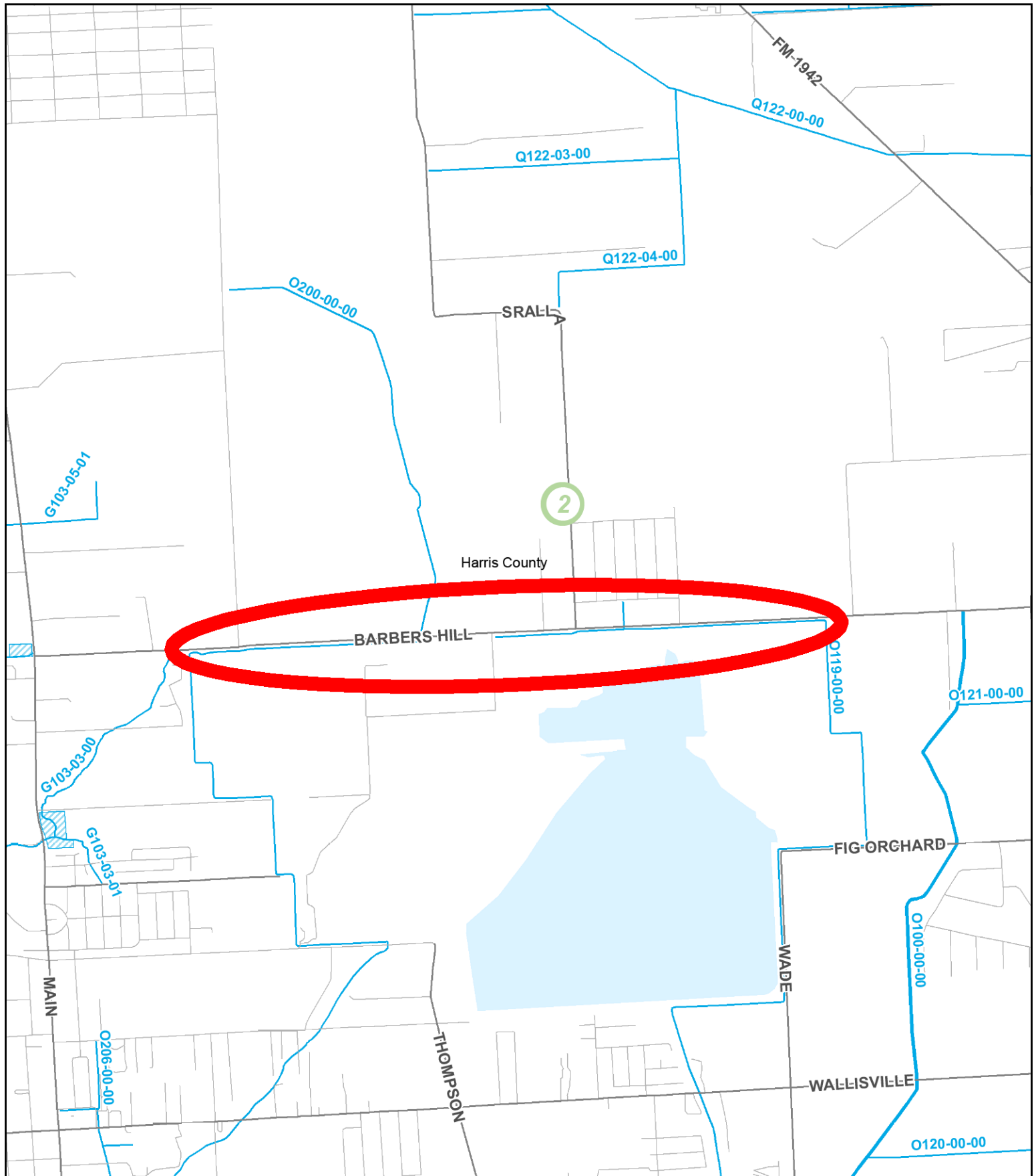
NOW, THEREFORE, BE IT ORDERED BY THE COMMISSIONERS COURT OF HARRIS COUNTY, TEXAS THAT:

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 Isani Consultants, L.P., for a maximum fee to be paid by the District of \$363,360.00, said Agreement being incorporated herein by reference for all purposes as though fully set forth verbatim herein.

cip-n isani O200-E001 2021-125.docx



Project ID O200-00-00-E001
Watershed: Goose Creek
Precinct: 2

Pct No

- 1
- 2
- 3
- 4

