



3. **Time of Performance.** Time for performance of the Scope of Services under this Agreement shall begin with Consultant's receipt of Notice to Proceed and shall end no later than March 10, 2025. Consultant shall complete the Services as provided in Consultant's "Project Schedule" (attached hereto as Exhibit "3") within this time or within such additional time as may be extended by County.
  
4. **Compensation and Payment Terms.**
  - (a) Consultant's fees for the Services shall be calculated at the rate(s) set forth in Consultant's "Detailed Fee Breakdown" attached hereto as Exhibit "2." The Maximum Compensation to Consultant for the Services performed under this Agreement is Three Hundred Ninety Nine Thousand Five Hundred Forty Eight and 00/100 Dollars (\$399,548.00). In no event shall the amount paid by District to Consultant under this Agreement exceed said Maximum Compensation without an approved change order.
  - (b) Consultant understands and agrees that the Maximum Compensation stated is an all-inclusive amount and no additional fee, cost or reimbursed expense shall be added whatsoever to the fees stated in the attached Exhibit "2."
  - (c) District will pay Consultant based on the following procedures: Consultant shall submit to District two (2) original copies of invoices showing the amounts due for services performed in a form acceptable to District. Consultant may submit electronically via: [apauditor@fortbendcountytexas.gov](mailto:apauditor@fortbendcountytexas.gov). District shall review such invoices and approve them within 30 calendar days with such modifications as are consistent with this Agreement and forward same to the Auditor for processing. District shall pay each such approved invoice within thirty (30) calendar days.
  
5. **Limit of Appropriation.** Consultant understands and agrees that the Maximum Compensation for the performance of the Services within the Scope of Services described in Section 2 above is Three Hundred Ninety Nine Thousand Five Hundred Forty Eight and 00/100 Dollars (\$399,548.00). In no event shall the amount paid by District under this Agreement exceed the Maximum Compensation without a District approved change order. Consultant clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that District shall have available the total maximum sum of Three Hundred Ninety Nine Thousand Five Hundred Forty Eight and 00/100 Dollars (\$399,548.00) specifically allocated to fully discharge any and all liabilities District may incur under this Agreement. Consultant does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total Maximum Compensation that Consultant may become entitled to and the total maximum sum that District may become liable to pay to Consultant under this Agreement shall not under any conditions, circumstances, or interpretations thereof exceed Three Hundred Ninety Nine Thousand Five Hundred Forty Eight and 00/100 Dollars (\$399,548.00).

6. **Non-appropriation.** Consultant understands and agrees that in the event no funds or insufficient funds are appropriated by the District under this Agreement, District shall immediately notify Consultant in writing of such occurrence and the Agreement shall thereafter terminate and be null and void on the last day of the fiscal period for which appropriations were received or made without penalty, liability or expense to the District. In no event shall said termination of this Agreement or District's failure to appropriate said funds be deemed a breach or default of this Agreement or create a debt by District in any amount(s) in excess of those previously funded.
7. **Taxes.** District is a special District created under the laws of the state of Texas and as such, is exempt from sales and use taxes. District shall furnish evidence of its tax-exempt status upon written request by Consultant.
8. **Insurance.** Prior to commencement of the Services, Consultant shall furnish District with properly executed certificates of insurance which shall evidence all insurance required and provide that such insurance shall not be canceled, except on 30 days' prior written notice to District. Consultant shall provide certified copies of insurance endorsements and/or policies if requested by District. Consultant shall maintain such insurance coverage from the time Services commence until Services are completed and provide replacement certificates, policies and/or endorsements for any such insurance expiring prior to completion of Services. Consultant shall obtain such insurance written on an Occurrence form from such companies having Best's rating of A/VII or better, licensed or approved to transact business in the State of Texas, and shall obtain such insurance of the following types and minimum limits:
  - (a) Workers Compensation in accordance with the laws of the State of Texas. Substitutes to genuine Workers' Compensation Insurance will not be allowed.
  - (b) Employers' Liability insurance with limits of not less than \$1,000,000 per injury by accident, \$1,000,000 per injury by disease, and \$1,000,000 per bodily injury by disease.
  - (c) Commercial general liability insurance with a limit of not less than \$1,000,000 each occurrence and \$2,000,000 in the annual aggregate. Policy shall cover liability for bodily injury, personal injury, and property damage and products/completed operations arising out of the business operations of the policyholder.
  - (d) Business Automobile Liability coverage applying to owned, non-owned and hired automobiles with limits not less than \$1,000,000 each occurrence combined single limit for Bodily Injury and Property Damage combined.
  - (e) Professional Liability insurance with limits not less than \$1,000,000.

District and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability (if required). All Liability policies written on behalf of Consultant shall contain a waiver of subrogation in favor of District and members of Commissioners Court.

If required coverage is written on a claims-made basis, Consultant warrants that any retroactive date applicable to coverage under the policy precedes the effective date of the

Contract and that continuous coverage will be maintained or an extended discovery period will be exercised for a period of 2 years beginning from the time the work under this Contract is completed.

Consultant shall not commence any portion of the work under this Contract until it has obtained the insurance required herein and certificates of such insurance have been filed with and approved by District.

No cancellation of or changes to the certificates, or the policies, may be made without thirty (30) days prior, written notification to District.

Approval of the insurance by District shall not relieve or decrease the liability of the Consultant.

9. **Indemnity.** TO THE FULLEST EXTENT PROVIDED BY APPLICABLE LAW, CONSULTANT SHALL INDEMNIFY AND HOLD HARMLESS DISTRICT, ITS OFFICIALS, OFFICERS, AND EMPLOYEES FROM AND AGAINST ALL CLAIMS, LOSSES, DAMAGES, CAUSES OF ACTION, SUITS, LIABILITY, AND COSTS, INCLUDING THE REIMBURSEMENT OF REASONABLE ATTORNEY FEES, ARISING OUT OF OR RESULTING FROM AN ACT OF NEGLIGENCE, INTENTIONAL TORT, INTELLECTUAL PROPERTY INFRINGEMENT, OR FAILURE TO PAY A SUBCONTRACTOR OR SUPPLIER COMMITTED BY CONSULTANT OR CONSULTANT'S AGENTS, EMPLOYEES, OR ANOTHER ENTITY OVER WHICH CONSULTANT EXERCISES CONTROL. CONSULTANT SHALL FURTHER PROCURE AND MAINTAIN GENERAL LIABILITY INSURANCE WITH COVERAGE AS PROVIDED IN SECTION 8 OF THIS AGREEMENT AND SHALL FURNISH A CERTIFICATE OF INSURANCE FOR THE SAME SHOWING FORT BEND COUNTY DRAINAGE DISTRICT AS AN ADDITIONAL INSURED.
10. **Public Information Act.** Consultant expressly acknowledges and agrees that District is a public entity and as such, is subject to the provisions of the Texas Public Information Act under Chapter 552 of the Texas Government Code. In no event shall District be liable to Consultant for release of information pursuant to Chapter 552 of the Texas Government Code or any other provision of law. Except to the extent required by law or as directed by the Texas Attorney General, District agrees to maintain the confidentiality of information provided by Consultant expressly marked as proprietary or confidential. District shall not be liable to Consultant for any disclosure of any proprietary or confidential information if such information is disclosed under Texas law or at the direction of the Texas Attorney General. Consultant further acknowledges and agrees that the terms and conditions of this Agreement are not proprietary or confidential information.
11. **Compliance with Laws.** Consultant shall comply with all federal, state, and local laws, statutes, ordinances, rules, regulations, and the orders and decrees of any courts or administrative bodies or tribunals in any matter affecting the performance of this Agreement, including, without limitation, Worker's Compensation laws, minimum and maximum salary and wage statutes and regulations, licensing laws and regulations.

Consultant in providing all services hereunder, further agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

12. **Independent Contractor.** In the performance of work or services hereunder, Consultant shall be deemed an independent Contractor, and any of its agents, employees, officers, or volunteers performing work required hereunder shall be deemed solely as employees of Consultant. Consultant and its agents, employees, officers, or volunteers shall not, by performing work pursuant to this Agreement, be deemed to be employees, agents, or servants of District and shall not be entitled to any of the privileges or benefits of District employment.
13. **Use of Customer Name.** Consultant may use District's name without District's prior written consent only in Consultant's customer lists. Any other use of District's name by Consultant must have the prior written consent of District.
14. **County/District Data.** Nothing in this Agreement shall be construed to waive the requirements of Section 205.009 of the Texas Local Government Code.
15. **Personnel.** Consultant represents that it presently has, or is able to obtain adequate qualified personnel in its employment for the timely performance of the Services required under this Agreement and that Consultant shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of District, to perform the Services when and as required and without delays.

All employees of Consultant shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Consultant or agent of Consultant who, in District's opinion, is incompetent or by his conduct become detrimental to providing Services pursuant to this Agreement, shall, upon request of District, immediately be removed from association with the Services required under this Agreement.

When performing Services on-site at District's facilities, Consultant shall comply with, and ensure that all Consultant's Personnel comply with, all rules, regulations and policies of District that are communicated to Consultant in writing, including security procedures concerning systems and data and remote access thereto, building security procedures, including the restriction of access by District to certain areas of its premises or systems for security reasons, and general health and safety practices and procedures.

16. **Confidential and Proprietary Information.**

Consultant acknowledges that it and its employees or agents may, in the course of performing their responsibilities under this Agreement, be exposed to or acquire information that is confidential to District. Any and all information of any form obtained by Consultant or its employees or agents from District in the performance of this Agreement shall be deemed to be confidential information of District ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Consultant shall be treated with respect to

confidentiality in the same manner as the Confidential Information. Confidential Information shall be deemed not to include information that (a) is or becomes (other than by disclosure by Consultant) publicly known or is contained in a publicly available document; (b) is rightfully in Consultant's possession without the obligation of nondisclosure prior to the time of its disclosure under this Agreement; or (c) is independently developed by employees or agents of Consultant who can be shown to have had no access to the Confidential Information.

Consultant agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Consultant uses in maintaining the confidentiality of its own confidential information, and not to copy, reproduce, sell, assign, license, market, transfer or otherwise dispose of, give, or disclose Confidential Information to third parties or use Confidential Information for any purposes whatsoever other than the provision of Services to District hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Consultant shall use its best efforts to assist District in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Consultant shall advise District immediately in the event Consultant learns or has reason to believe that any person who has had access to Confidential Information has violated or intends to violate the terms of this Agreement and Consultant will at its expense cooperate with District in seeking injunctive or other equitable relief in the name of District or Consultant against any such person. Consultant agrees that, except as directed by District, Consultant will not at any time during or after the term of this Agreement disclose, directly or indirectly, any Confidential Information to any person, and that upon termination of this Agreement or at District's request, Consultant will promptly turn over to District all documents, papers, and other matter in Consultant's possession which embody Confidential Information.

Consultant acknowledges that a breach of this Section, including disclosure of any Confidential Information, or disclosure of other information that, at law or in equity, ought to remain confidential, will give rise to irreparable injury to District that is inadequately compensable in damages. Accordingly, District may seek and obtain injunctive relief against the breach or threatened breach of the foregoing undertakings, in addition to any other legal remedies that may be available. Consultant acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of District and are reasonable in scope and content.

Consultant in providing all services hereunder agrees to abide by the provisions of any applicable Federal or State Data Privacy Act.

17. **Ownership and Reuse of Documents.** All documents, data, reports, research, graphic presentation materials, etc., developed by Consultant as a part of its work under this Agreement, shall become the property of District upon completion or termination of this Agreement. Consultant shall promptly furnish all such data and material to District on request.
18. **Inspection of Books and Records.** Consultant shall permit District, or any duly authorized agent of District, to inspect and examine the books and records of Consultant

for the purpose of verifying the amount of work performed under the Scope of Services. District's right to inspect such books and records shall survive the termination of this Agreement for a period of four years. Notwithstanding the foregoing, Consultant shall bear no liability or responsibility for deliverables that have been modified post-delivery or used for a purpose other than that for which they were prepared under this Agreement.

19. **Termination.** District may terminate this Agreement at any time, with or without cause, upon thirty (30) days written notice to Consultant. Upon termination of this Agreement by District, Consultant shall be in accordance with Section 4, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to District. Consultant's final invoice for said services will be presented to and paid by District in the same manner set forth in Section 4 above. No fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Consultant by District.
  
20. **Force Majeure.** Notwithstanding anything to the contrary contained herein, neither Party shall be liable to the other for any delay or inability to carry out its obligations under this Agreement if such delay or inability is the result of a Force Majeure Event. Within a reasonable time after the occurrence of such event, the Party whose obligations are affected (the "Affected Party") thereby shall notify the other in writing stating the nature of the event and the anticipated duration. The Affected Party's obligations under this Agreement shall be suspended during the continuance of any delay or inability caused by the event, but for no longer period. The Affected Party shall further endeavor to remove or overcome such delay or inability as soon as is reasonably possible.  
  
For purposes of this Agreement, a Force Majeure Event includes, but is not limited to: strikes or other labor disputes, severe weather disruptions, natural disasters, fire or other acts of God; riots, war, or other emergencies; failure of any governmental agency to act in a timely manner; the discovery of any hazardous substance or differing and unforeseeable site conditions; and any other incapacities of any Party, similar to those enumerated, which are not within the control of the Party claiming such inability, which such Party could not have avoided by the reasonable exercise of due diligence and care.
  
21. **Assignment.** Consultant may not assign this Agreement to another party without the prior written consent of District.
  
22. **Successors and Assigns Bound.** District and Consultant each bind themselves and their successors and assigns to the other Party and to the successors and assigns of such other Party, with respect to all covenants of this Agreement.
  
23. **Publicity.** Contact with citizens of Fort Bend County, media outlets, or other governmental agencies shall be the sole responsibility of District. Under no circumstances, whatsoever, shall Consultant release any material or information developed or received during the performance of Services hereunder unless Consultant obtains the express written approval of District or is required to do so by law.

24. **Notice.** Any and all notices required or permitted under this Agreement shall be in writing and shall be mailed by certified mail, return receipt requested, or personally delivered to the following addresses:

**If to District:** Fort Bend County Drainage District  
Attn: Chief Engineer  
301 Jackson Street,  
Richmond, Texas 77469

**And**

Fort Bend County, Texas  
Attention: County Judge  
401 Jackson Street, 1<sup>st</sup> Floor  
Richmond, Texas 77469

**If to Consultant:** Freese and Nichols, Inc.  
P.O. Box 98004  
Fort Worth, Texas 76198-0004

25. **Performance Representation.** Consultant represents to District that Consultant has the skill and knowledge ordinarily possessed by well-informed members of its trade or profession (“Professionals”) practicing in the greater Houston metropolitan area. Consultant shall provide the Services to District with the same professional skill and care ordinarily provided by such Professionals under the same or similar circumstances and professional license and as expeditiously as is prudent considering the ordinary professional skill and care of a competent Professional.
26. **Entire Agreement and Modification.** This Agreement constitutes the entire Agreement between the Parties and supersedes all previous agreements, written or oral, pertaining to the subject matter of this Agreement. Any amendment to this Agreement must be in writing and signed by each Party to come into full force and effect.
27. **Understanding Fair Construction.** By execution of this Agreement, the Parties acknowledge that they have read and understood each provision, term, and obligation contained herein. This Agreement, although drawn by one party, shall be construed fairly and reasonably and not more strictly against the drafting Party than the non-drafting Party.
28. **Severability.** In case any one or more of the provisions contained in this Agreement shall for any reason be held to be invalid, illegal or unenforceable in any respect, such invalidity, illegality or unenforceability shall not affect any other provision hereof and this Agreement shall be construed as if such invalid, illegal or unenforceable provision had never been contained herein.



29. **No Waiver of Immunity.** Neither the execution of this Agreement nor any other conduct of either party relating to this Agreement shall be considered a waiver or surrender by District of its governmental powers or immunity under the Texas Constitution or the laws of the state of Texas.
30. **Certain State Law Requirements for Contracts** The contents of this Section are required by Texas law and are included by District regardless of content For purposes of Sections 2252.152, 2271.002, and 2274.002, Texas Government Code, as amended, Consultant hereby verifies that Consultant and any parent company, wholly owned subsidiary, majority-owned subsidiary, and affiliate:
- (a) Unless affirmatively declared by the United States government to be excluded from its federal sanctions regime relating to Sudan or Iran or any federal sanctions regime relating to a foreign terrorist organization, is not identified on a list prepared and maintained by the Texas Comptroller of Public Accounts under Section 806.051, 807.051, or 2252.153 of the Texas Government Code.
  - (b) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not boycott Israel and is authorized to agree in such contracts not to boycott Israel during the term of such contracts. “Boycott Israel” has the meaning provided in § 808.001 of the Texas Government Code.
  - (c) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not boycott energy companies and is authorized to agree in such contracts not to boycott energy companies during the term of such contracts. “Boycott energy company” has the meaning provided in § 809.001 of the Texas Government Code.
  - (d) If employing ten (10) or more full-time employees and this Agreement has a value of \$100,000.00 or more, Consultant does not have a practice, policy, guidance, or directive that discriminates against a firearm entity or firearm trade association and is authorized to agree in such contracts not to discriminate against a firearm entity or firearm trade association during the term of such contracts. “Discriminate against a firearm entity or firearm trade association” has the meaning provided in § 2274.001(3) of the Texas Government Code. “Firearm entity” and “firearm trade association” have the meanings provided in § 2274.001(6) and (7) of the Texas Government Code.
31. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, CONSULTANT ACKNOWLEDGES THAT FORT BEND COUNTY DRAINAGE DISTRICT IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO DISTRICT FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

32. **Captions.** The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of the Agreement.
33. **Electronic and Digital Signatures.** The Parties to this Agreement agree that any electronic and/or digital signatures of the Parties included in this Agreement are intended to authenticate this writing and shall have the same force and effect as the use of manual signatures.
34. **Certification.** By his or her signature below, each signatory individual certifies that he or she is the properly authorized person or officer of the applicable Party hereto and has the requisite authority necessary to execute this Agreement on behalf of such Party, and each Party hereby certifies to the other that it has obtained the appropriate approvals or authorizations from its governing body as required by law.

**{Execution Page Follows}**

IN WITNESS WHEREOF, and intending to be legally bound, District and Consultant hereto have executed this Agreement to be effective on the date signed by the last Party hereto.

**FORT BEND COUNTY  
DRAINAGE DISTRICT**

\_\_\_\_\_  
KP George, County Judge

\_\_\_\_\_  
Date

**FREESE AND NICHOLS, INC.**



\_\_\_\_\_  
Authorized Agent – Signature

Cody Cockroft

\_\_\_\_\_  
Authorized Agent- Printed Name

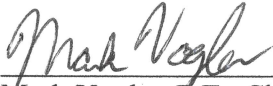
Vice President

\_\_\_\_\_  
Title

02/21/2023

\_\_\_\_\_  
Date

**APPROVED:**



\_\_\_\_\_  
Mark Vogler, P.E., Chief Engineer

**AUDITOR'S CERTIFICATE**

I hereby certify that funds in the amount of \$\_\_\_\_\_ are available to pay the obligation of Fort Bend County Drainage District within the foregoing Agreement.

\_\_\_\_\_  
Robert Ed Sturdivant, District Auditor

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Innovative approaches  
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10497 Town and Country Way, Suite 600 • Houston, Texas 77024 • 713-600-6800 • fax 713-600-6801

www.freese.com

**SUBJECT:** Proposal for Engineering Services: Kitty Hollow Dam – REV 3 **DATE:** 01/19/2023

**TO:** Jeff Janacek, Fort Bend County Drainage District

**ADDRESS:** 1124 Blume Road  
Rosenberg, TX 77471

**PHONE NO.:** 281-342-2863

**FROM:** Cody Cockroft, P.E.  
Kevin Kiniry, P.E.

Mr. Janacek,

Freese and Nichols, Inc. (FNI) is pleased to provide Fort Bend County Drainage District (FBCDD) with a proposal for engineering services for the subject project. FNI's total proposal amount is \$399,548.00. The summary of fees and task budget details are provided in the tables below.

Summary	Fee
BASIC SERVICES	\$ 258,020
ADDITIONAL SERVICES	\$ 141,528
<b>TOTAL</b>	<b>\$ 399,548</b>

<u>BASIC SERVICES</u>			
Task	Description	Fee Type	Fee
<b>1</b>	<b>Project Management</b>	<b>LS</b>	<b>\$ 28,698</b>
<b>2</b>	<b>Dam Breach Analysis</b>	<b>LS</b>	<b>\$ 27,827</b>
<b>3</b>	<b>Engineering Design</b>	<b>LS</b>	<b>\$ 201,494</b>
	<i>A. 50% Submittal</i>	<i>LS</i>	<i>\$ 102,567</i>
	<i>B. 90% Submittal</i>	<i>LS</i>	<i>\$ 79,243</i>
	<i>C. Issued for Bid (IFB) Submittal</i>	<i>LS</i>	<i>\$ 19,684</i>
<b>BASIC SERVICES TOTAL</b>			<b>\$ 258,020</b>

<u>ADDITIONAL SERVICES</u>			
Task	Description	Fee Type	Fee
<b>1</b>	<b>Survey Services</b>	<b>T&amp;M</b>	<b>\$ 50,468</b>
	<i>A. Control Surveying</i>	<i>T&amp;M</i>	<i>\$ 12,765</i>
	<i>B. Property Ownership Surveying</i>	<i>T&amp;M</i>	<i>\$ 16,273</i>
	<i>C. Topographic Surveying</i>	<i>T&amp;M</i>	<i>\$ 21,430</i>
<b>2</b>	<b>Geotechnical Services</b>	<b>T&amp;M</b>	<b>\$ 51,750</b>
<b>3</b>	<b>Bid Phase Services</b>	<b>T&amp;M</b>	<b>\$ 13,213</b>
<b>4</b>	<b>Construction Phase Services (General Rep Only)</b>	<b>T&amp;M</b>	<b>\$ 26,097</b>
<b>ADDITIONAL SERVICES TOTAL</b>			<b>\$ 141,528</b>

### **Project Understanding**

Based on correspondence with FBCDD in October and November of 2022, FNI understands that the preferred design concept for Kitty Hollow Dam is described as follows:

- The effective crest of the dam would be raised from elevation 67.00 feet to elevation 69.90 feet; and
- Removal, disposal and replacement of the principal spillway structure and related appurtenances. A new, reinforced concrete riser structure with a trash rack system would be installed as the intake of the principal spillway system. The new riser structure would be configured to promote weir flow and orifice flow to maintain a comparable hydraulic performance to with the previous principal spillway. Two new, 66-inch diameter reinforced concrete pipes (RCPs) are anticipated to be installed between the intake riser and a reinforced concrete discharge structure situated on the south bank of Lower Oyster Creek. The discharge structure would include an armoring system to safeguard Lower Oyster Creek from Erosion.

FNI notes that, for the concept described above, the Opinion of Probable Construction Cost (OPCC) prepared in July of 2021 was \$1,214,000. Based on FNI's experience with active construction projects in the present market conditions, the actual construction cost of the project would be in excess of the July 2021 OPCC. The following factors contribute to this increase:

- The following items have a significant impact to construction costs and schedules involving cast-in-place reinforced concrete structures:
  - The demand for steel products across the construction industry has continued to increase in the post-COVID environment. Reinforcing steel for concrete structures, as well as steel for items such as: trash racks, guard railing, and related appurtenances have been impacted.
  - Suppliers of Portland cement (and related concrete mixture elements) are providing limited allocations to contractors in the Greater Houston area. In certain cases, contractors are limited to a prescribed amount of supply and only permitted to pick up materials for a given window of time on select days of the week.
- Costs for diesel fuel have significantly increased, which increases the difficulty for transportation of materials and equipment to and from construction sites. Project work items such as earthwork and concrete operations are particularly impacted.
- Labor shortages have continued to impact the construction industry when paired against the volume of construction projects going out for bidding. This puts smaller-sized projects in competition with large-sized projects, as contractors have to be selective when extending resources. This competition generally drives prices upwards.

FNI's proposed scope of work and accompanying fee estimate for engineering design has therefore been prepared to assist FBCDD with identifying opportunities to control construction costs. Beyond the base level services associated with bidding phase support and general representation of FBCDD during construction, FNI's proposed scope of work additionally includes providing for part-time inspection during construction.

The following items are included with this proposal:

- Exhibit 1: Scope of Work
- Exhibit 2: Detailed Fee Breakdown
- Exhibit 3: Project Schedule
- Exhibit 4: Surveying Services (Sub-Consultant Proposal – GeoSolutions, LLC)
- Exhibit 5: Geotechnical Services (Sub-Consultant Proposal – Alpha Testing, LLC)

FNI appreciates the opportunity to support FBCDD on this project,



Cody Cockroft, P.E.  
Principal and Vice President  
Freese and Nichols, Inc.  
10497 Town and Country Way, Suite 500  
Houston, Texas 77024  
713-600-6832 (direct)

EXHIBIT 1  
SCOPE OF WORK

**Scope of Work**  
**Final Engineering Design – Kitty Hollow Lake Dam**

Included herein is a proposed scope of work for Freese and Nichols, Inc. (FNI) to provide final engineering design services to Fort Bend County Drainage District (FBCDD). This scope of work includes preparation of construction documents associated with implementing Alternative 1 at Kitty Hollow Lake Dam (as identified in FNI’s August 11, 2021 Technical Memorandum). This scope of work additionally includes rendering survey services, geotechnical services, bid phase services, construction phase services, and the development of an Emergency Action Plan (EAP).

**Basic Services:**

***Task 1. Project Management***

- a) Prepare for and attend up to nine (9) project meetings with FBCDD.
  - i. One (1) project kick-off meeting
  - ii. Eight (8) progress meetings
- b) Perform routine project management activities, including:
  - i. Implementation of Quality Control (QC) and Quality Assurance (QA) measures throughout the project.
  - ii. Status Reporting – Provide written status reports to FBCDD once per month throughout the duration of the project. Project status reports will include, at a minimum, a summary description of activities completed, description of activities planned for the next 30 days, financial status of the project, status of schedule for the project, and identification of any technical or other issues which may have an impact to the overall project budget and/or schedule. Project status reports will be provided with each invoice.
  - iii. Monthly Invoicing
  - iv. Develop, manage, monitor, update and coordinate the baseline schedule throughout the life of the project based on changes or necessary updates.

***Task 2. Dam Breach Analysis***

Hydraulic models are used to analyze downstream conditions from flows through a dam; either designed flows through a spillway or hypothetical flows resulting from an uncontrolled breach, or failure, of the dam. Specific to this project, hydraulic models are used to map inundation extents from a hypothetical breach of the dam. Inundation mapping is then used as a critical element of an Emergency Action Plan (EAP). TCEQ requires breach analyses and EAPs for all significant and high hazard dams. FNI will utilize the design flood peak water surface elevations and inflow hydrographs previously prepared (as part of the August 11, 2021 Technical Memorandum) to perform the breach analyses and generate the breach inundation mapping. Breach modeling will be performed in unsteady-state HEC-RAS with use of the advanced two-dimensional flow capabilities. The scope is described as follows:

- a) Gather necessary data for hydraulic model inputs, including any relevant previous studies and topography data collected by surveying sub-consultant and/or from available LiDAR or other sources. FBCDD shall provide this LiDAR data, as available. In areas not covered by high-resolution LiDAR data, the topographic model will be supplemented with lower resolution data from the National Elevation Dataset.
- b) Develop dam breach models in HEC-RAS to evaluate the required breach scenarios – normal pool breach, barely overtopping breach, and design flood (percentage of PMF) breach (TAC

§299.15a.4.A.i). The models will be defined based on available topography data, and results from FNI's previous Hydrologic Assessment (documented in the August 11, 2021 Technical Memorandum) will provide inflow hydrographs for the model. Any model components utilized from previous studies are assumed to be calibrated appropriately. No new hydraulic calibration is included in this scope. Downstream model extents will be defined based on breach attenuation down to less than one foot incrementally between breach and non-breach scenarios. Due to the configuration of the reservoir, multiple potential breach locations will be considered along the embankment to represent a potential failure at any location around the reservoir. Downstream hydrology will be accounted for as defined below:

- i. Downstream and intervening drainage basins will be included from the hydrologic analysis, as available, to represent incoming flows from adjacent tributary streams.
  - ii. Constant flow hydrographs may be included, as necessary, on the Brazos River and other major tributaries based on statistical analysis of USGS streamflow gages.
- c) Based on results from the dam breach models, evaluate the downstream hazard classification according to TCEQ criteria (TAC § 299.14).
- d) Perform an incremental impact analysis to establish a potentially reduced design flood. This analysis seeks to determine the percentage of the PMF above which no additional incremental impacts occur from a breach of the dam. Incremental impacts are defined as a flood elevation differential at a structure greater than one foot between breach and non-breach scenarios. If this percentage of the PMF is less than the currently required design flood of 75% PMF, the reduced percentage may be adopted as the design flood.
- e) Prepare breach inundation maps of the final breach scenarios formatted for inclusion in an Emergency Action Plan (EAP). The inundation extents will be delineated based on the available topography data, and the maps will use aerial imagery as the background with appropriate base map layers and labels. Provide digital data in the form of GIS shapefiles and Google Earth KMZ files, as requested.
- f) Prepare a DRAFT technical report documenting the processes, assumptions, and findings of the Dam Breach Analysis. The report will be formatted such that it may be included as an appendix to an Emergency Action Plan (EAP), if needed. Furnish one (1) digital copy of draft report in PDF format to FBCDD for review.
- g) Meet with FBCDD to discuss findings of the Breach Analysis and Incremental Impact Analysis. Purpose of meeting will be to review hazard classification determined from the breach analysis and any potential reduction in the required design flood.
- h) Provide the DRAFT technical report to TCEQ for review and approval. For documents submitted for TCEQ review, comments will be addressed, and documents finalized within two (2) months of receipt of comments from TCEQ. If TCEQ review extends beyond a three (3) month timeframe, additional time may be required for addressing comments due to project staff availability. In this case, an updated plan and schedule will be communicated to FBCDD upon receipt of TCEQ comments.



### ***Task 3. Engineering Design***

- a) 50% Submittal. The following design activities are anticipated:
- i. Conduct an engineering site visit.
  - ii. Engage a subconsultant to perform a topographic and property ownership survey. Receive and review deliverables provided from subconsultant.
  - iii. Engage a subconsultant to perform a geotechnical exploration and laboratory testing program. Receive and review deliverables provided from subconsultant.
  - iv. Perform general civil design activities, which are anticipated to include:
    - i. Development of proposed grading plan with respect to: establishing required top of dam elevation and limiting improvements within existing ROW.
    - ii. Development of design configuration for principal spillway structure and associated appurtenances.
    - iii. Develop a design concept to include provisions for the following construction activities:
      1. Mobilization (i.e., site access, potential lay-down areas, temporary and/or permanent easements)
      2. Care and control of water (e.g., surface water and groundwater)
      3. Anticipated earthwork activities, which may include, but not be limited to: identification of sediment and/or silt to be removed and potential disposal sites.
  - v. Coordinate with the geotechnical sub-consultant with respect to slope stability analyses of proposed improvements at up to four (4) cross-sections within the project limits.
  - vi. H&H Design Activities (Principal Spillway)
    - i. Evaluate the hydraulic performance of the proposed principal spillway structure. Coordinate with Engineering Design Team to validate pipe sizing, orifice sizing, erosion protection systems, etc.
  - vii. Perform Environmental Screening Activities.
    - i. FNI environmental science staff to perform a desktop analysis and site visit to identify areas of interest, inclusive of collecting GPS data and photographs. Focus will be given to the presence of potential waters of the U.S. (WOTUS) as well as documenting any potential habitat for federally threatened and endangered species.
    - ii. Process the data collected in the field and prepare an environmental memorandum. This memorandum would outline potential WOTUS documented within the project area as well as make recommendations for USACE permitting. FNI would suggest design modifications in order to avoid a PCN, if required. No coordination with the USACE or permit application development is included in this scope of work. The report would also outline potential effects to federally threatened and endangered species and include the results of cultural resources coordination with the Texas Historical Commission (THC).
    - iii. FNI will prepare and submit a desktop cultural resources evaluation to the THC in accordance with the Antiquities Code of Texas. No survey work related to cultural resources is included in this scope of work.
    - iv. Coordination with Engineering Design Team
  - viii. Develop the 50% Construction Drawings.
    - i. Utilize topographic survey data to develop a 3D Land Surface to represent existing conditions.
    - ii. Develop a 3D Land Surface to represent proposed conditions.

- iii. Prepare a 50% set of Construction Drawings. The submittal is anticipated to include the following sheets:
  - 1. Cover
  - 2. General Notes
  - 3. Overall Project Layout
  - 4. Site Access and Demolition Plan
  - 5. Plan and Profile Sheets
  - 6. Cross-Section Sheets
  - 7. Stormwater Pollution Prevention Plan and Details
  - 8. Standard Detail Sheets
- ix. Develop the 50% Opinion of Probable Construction Cost (OPCC)
- x. Develop a Table of Contents for the Technical Specifications

50% Submittal shall constitute:

- (1) Electronic (PDF) Copy of the 50% Construction Drawings
- (1) Electronic (PDF) Copy of the 50% OPCC
- (1) Electronic (PDF) Copy of the Table of Contents for the Technical Specifications

b) 90% Submittal. The following design activities are anticipated:

- i. Additional General Civil Design Activities
  - i. Incorporate 50% review comments provided by FBCDD.
  - ii. Updates to proposed grading plan, as applicable.
  - iii. Finalize design of principal spillway structure and associated appurtenances.
  - iv. FNI Engineering Design Staff and Construction Services Staff to conduct a constructability review of the drawings and specifications.
- ii. Additional Geotechnical Design Activities
  - i. Continue coordination with the geotechnical sub-consultant and Engineering Design Team towards the stability analyses of proposed conditions.
- iii. Additional H&H Design Activities (Principal Spillway)
  - i. Continue coordination with Engineering Design Team to finalize the design of the principal spillway structure.
- iv. Additional Environmental Screening Activities
  - i. Continue coordination with Engineering Design Team and FBCDD to promote a design configuration with adherence to the identified environmental constraints.
- v. Structural Design Activities (Principal Spillway)
  - i. Configure reinforced concrete design elements of the principal spillway structure and associated appurtenances.
- vi. Development of Construction Drawings
  - i. Update the drawings included within the 50% Submittal.
  - ii. Develop Additional Construction Drawings:
    - 1. Structural Notes and Details
    - 2. Structural Plan and Section Views
    - 3. Stormwater Pollution Prevention Plan and Details

90% Submittal shall constitute:

- (1) Electronic (PDF) Copy of the 90% Construction Drawings
- (1) Electronic (PDF) Copy of the 90% OPCC
- (1) Electronic (PDF) Copy of the 90% Project Manual (To Include FNI Front-End Specifications and FNI Technical Specifications)

c) Issued for Bid (IFB) Submittal.

Incorporate FBCDD's 90% Review Comments and prepare:

- i. IFB Construction Drawings
- ii. IFB OPCC
- iii. IFB Project Manual
- iv. Provide a Submittal Package to TCEQ. ***Note: TCEQ's review would run concurrent to Advertisement. Final approval and signatures from TCEQ would be incorporated into the Issued for Construction (IFC) Construction Documents.***

IFB Submittal shall constitute:

- (1) Electronic (PDF) Copy of the IFB Construction Drawings
- (1) Electronic (PDF) Copy of the IFB OPCC
- (1) Electronic (PDF) Copy of the IFB Technical Specifications

## **Additional Services:**

### ***Task 1. Survey Services (See Exhibit 4 for detailed proposal)***

- a) Establish control for topographic survey.
- b) Perform a boundary survey for the project area and surrounding properties.
- c) Perform a topographic survey of the project area.

### ***Task 2. Geotechnical Services (See Exhibit 5 for detailed proposal)***

Geotechnical Services shall be performed with adherence to the applicable requirements of Chapter 4 of TCEQ's "Design and Construction Guidelines for Dams in Texas".

- a) Perform a geotechnical field exploration program, which will include: 2 borings drilled to a depth of 50 feet and 9 borings drilled to a depth of 30 feet.
- b) Perform laboratory testing to evaluate the moisture condition, classification, shear strength, permeability and/or potential for shrink/swell behavior of select soil samples (in compliance with TCEQ's applicable guidelines).
- c) Perform engineering analyses and develop recommendations to be presented in the form of a report.

### ***Task 3. Bid Phase Services***

- a) Conform the IFB submittal documents for contractor procurement purposes (Drawings, Contract Documents, and Technical Specifications).
- b) Assist FBCDD with advertisement of the project through CivCast as well as via the Fort Bend Independent newspaper.
- c) Prepare for and attend pre-proposal conference and associated site visit to present the details of the project and answer questions from potential bidders.
- d) Assist FBCDD during the contractor solicitation period by responding to questions from potential bidders. If necessary, prepare and issue addenda required during advertisement phase.
- e) Assist FBCDD in the review of proposals.
- f) Coordinate with TCEQ regarding review of IFB documents. Receive and incorporate applicable comments from TCEQ.
- g) Assist FBCDD with incorporating proposal forms, insurance certificates, bonds, executed agreements, addendums, and other necessary documents received from successful bidder into the Final/Conformed Set (Drawings, Contract Documents and Technical Specifications), and submit appropriate number of copies to the District.

#### ***Task 4. Construction Phase Services***

- a) Pre-Construction Meeting: Prepare for and attend the pre-construction conference with FBCDD and the Contractor.
- b) Contractor Payment Requests: Provide support to FBCDD and Missouri City by way of reviewing up to 12 monthly pay requests. FNI's level of effort for this task has been assumed to be 0.5 hours per pay application.
- c) Progress Meetings and Site Visits: Prepare for and attend progress meetings and make visits, appropriate to the stage of construction, to the site in order to discuss and observe the progress and the quality of work and attempt to determine, in general, if the Work is proceeding in accordance with the Construction Contract Documents. Notify FBCDD of non-conforming work observed. In this effort, FNI shall endeavor to protect FBCDD against defects and deficiencies in the work of Contractor and shall report any observed deficiencies to FBCDD. Personal Protective Equipment (PPE) requirements at the Project site shall be followed. When making a site visit, the Engineer shall check in with inspector at the site. If the inspector is not present, the Engineer shall notify FBCDD of their intent to be on-site. The following meetings and site visits are anticipated to be performed by the Engineer of Record, or his designee:
  - i. Monthly Progress Meetings and Site Visits. Up to twelve (12) Monthly Construction Progress Meetings and construction site visits for Engineer of Record, or his/her designee, to be performed on the same day. Prepare Site Observation Reports commensurate with each visit and submit to FBCDD;
  - ii. Additional Site Visits – NOT INCLUDED
  - iii. Performance of Substantial Completion Walkthrough;
  - iv. Performance of Final Completion Walkthrough. Provide for review and comment on the certificate of completion and recommendation for final payment to the Contractor; and
  - v. Visits in excess of the specified number above constitute additional services.
- d) Contractor Proposals and Claims: Provide up to six (6) hours of support to FBCDD and Missouri City in review of Contractor's Proposals and Claims.
- e) Contractor Submittals: Assign a Professional Engineer licensed in the State of Texas to review and respond to contractor submittals as requested by FBCDD within three (3) business days upon being notified. FNI will coordinate with FBCDD regarding the initiation of a Project Management Information System (PMIS) to be utilized for the project. It is anticipated that submittal reviews will consist of the following:
  - i. Record Data/Certified Test Reports/Lab Test Reports (Up to 50, at 0.5 hour per submittal);
  - ii. Requests for Information (RFIs) (Up to 8);
  - iii. Schedules of Progress (Up to 12); and
  - iv. Additional Submittal Reviews – NOT INCLUDED

All submittal responses must include the signature of either the Engineer of Record or their equally qualified designee also licensed as a professional engineer in the State of Texas.

- f) Record Drawings: Revise the Construction Drawings in accordance with the information furnished by Contractor reflecting changes in the project made during construction. "Red-lines" will be developed and maintained by Contractor and approved by project inspector.

EXHIBIT 2  
DETAILED FEE BREAKDOWN

Fort Bend County Drainage District Kitty Hollow Lake Dam - Final Engineering Design 12/13/2022 Detailed Cost Breakdown	Project Fee Summary		
	Basic Services	\$	258,020
	Additional Services	\$	141,528
	<b>Total Project</b>	<b>\$</b>	<b>399,548</b>

Basic or Additional	Task Description	Labor														Total Hours	Total Labor Effort
		Cody Cockroft	Kevin Kiniry	Justin Tran	Jon Jordan	Steve McCaskie	Shane Osborne	Hector Ormos	Patrick Mies	Collin Reedy	Masoud Ghalvemannejad	Anthony Dundee	Rick Zarate	Michael Lane	Andrew Tumbough		
		Principal in Charge	Project Manager	Project Engineer	CAD Lead	Geotech QC	Geotech Engineer	HH QC	HH Lead	HH Engineer	Structural Lead	Structural Engineer	Environmental QC	Environmental Scientist	Construction Services Lead		
		\$305	\$196	\$115	\$128	\$293	\$108	\$268	\$208	\$112	\$172	\$132	\$177	\$115	\$128		
<b>BASIC SERVICES</b>																	
Basic	<b>Task 1 - Project Management</b>																
Basic	A. Prepare For And Attend Up To Nine (9) Progress Meetings With FBCDD	9	27	18				4									
Basic	B. Routine Project Management Activities (Quality Control and Assurance, Status Reporting, Invoicing, Schedule Updates, etc.)	5	72														
Basic																	
Basic	<b>Task 2 - Dam Breach Analysis</b>																
Basic	A. Data Collection							2	4								
Basic	B. Develop Dam Breach Models							2	24								
Basic	C. Evaluate Hazard Classification							2	8								
Basic	D. Design Flood Iterations							20	40								
Basic	E. Prepare Breach Inundation Maps							2	20								
Basic	F. Combined Technical Report	2	4					2	8	20							
Basic	G. Review Findings w/ FBCDD	2	2					2	2	2							
Basic	H. Coordinate w/ TCEQ							4	8								
Basic																	
Basic	<b>Task 3 - Engineering Design</b>																
Basic	A. 50% Submittal																
Basic	i. Conduct Engineering Site Visit		8	8													
Basic	ii. Review Data from Surveying Sub-Consultant		2	8	8												
Basic	iii. Review Data from Geotechnical Sub-Consultant		2	8		4	16										
Basic	iv. General Civil Design Activities		10	40													
Basic	v. Perform Slope Stability Analyses for Proposed Cross-Sections		4	8		12	40										
Basic	vi. H&H Design Activities (Principal Spillway Design)		4	8					24	60							
Basic	vii. Perform Environmental Screening Activities		4										8	40			
Basic	viii. Develop 50% Construction Drawings		32	80	240									4	356	4	46,657
Basic	ix. Develop 50% Opinion of Probable Construction Cost (OPCC)		4	24										2	30		3,790
Basic	x. Develop Table of Contents for 50% Project Manual		4	4											5		654
Basic																	
Basic	B. 90% Submittal																
Basic	i. Additional General Civil Design Activities		10	40													
Basic	ii. Additional Geotechnical Design Activities		4	8		8	24										
Basic	iii. Additional H&H Design Activities		4	8					8	24							
Basic	iv. Additional Environmental Screening Activities		4														
Basic	v. Structural Design Activities (Principal Spillway Design)		4	8								24	40	4	24		
Basic	vi. Develop 90% Construction Drawings		30	60	160										4	254	33,738
Basic	vii. Develop 90% OPCC		4	8											2	14	1,957
Basic	viii. Develop 90% Project Manual		8	24												32	4,318
Basic																	
Basic	C. Issued for Bid (IFB) Submittal																
Basic	i. Develop IFB Construction Drawings		8	40	60												
Basic	ii. Develop IFB OPCC		2	4													
Basic	iii. Develop IFB Project Manual		4	8													
Basic	iii. Provide Submittal Package to TCEQ		4	8					2								
<b>ADDITIONAL SERVICES</b>																	
Additional	<b>Task 1 - Survey Services</b>																
Additional	A. Control Surveying																
Additional	B. Property Ownership Surveying																
Additional	C. Topographic Surveying																
Additional																	
Additional	<b>Task 2 - Geotechnical Services</b>																
Additional	A. Geotechnical Exploration																
Additional	B. Laboratory Testing Program																
Additional	C. Engineering Analyses and Recommendations																
Additional																	
Additional	<b>Task 3 - Bid Phase Services</b>																
Additional	A. Produce Documents for Contractor Procurement		12		8												
Additional	B. Assist FBCDD with Advertisement		12														
Additional	C. Prepare for and Attend Pre-Bid Conference		4														
Additional	D. Receive and Respond to Contractor Questions		8														
Additional	E. Assist FBCDD with Review of Bids		8														
Additional	F. TCEQ Coordination		6	4													
Additional	G. Produce Final/Conformed Construction Documents		4		4												
Additional																	
Additional	<b>Task 4 - Construction Phase Services (General Rep)</b>																
Additional																	
Additional	A. Prepare for and Attend Pre-Construction Meeting		4														
Additional	B. Contractor Payment Requests (12 at 0.5 Hour Per Payment Request)		6														
Additional	D. Progress Meetings and Site Visits																
Additional	Monthly Progress Meetings and Site Visit Observation Reports (12)		48														
Additional	Additional Site Visits (0) - NOT INCLUDED																
Additional	Substantial Completion Walk-Through		4														
Additional	Final Completion Walk-Through		4														
Additional	E. Contractor Proposals and Claims		6														
Additional	F. Contractor Submittals																
Additional	Record Data/Certified Test Reports/Lab Test Reports (50 at 0.5 Hour Per Submittal)		25														
Additional	Requests for Information (RFIs) (8)		8														
Additional	Additional Submittal Reviews (0) - NOT INCLUDED																
Additional	G. Record Drawings		4		24												
Additional																	
<b>Total Hours / Quantity</b>		18	425	426	504	24	80	4	80	210	24	40	12	64	12		
<b>Total Effort</b>		\$ 5,331	\$ 83,326	\$ 48,803	\$ 64,482	\$ 7,043	\$ 8,645	\$ 1,073	\$ 16,612	\$ 23,486	\$ 4,126	\$ 5,289	\$ 2,125	\$ 7,336	\$ 1,537		\$ 279,211



Fort Bend County Drainage District Kitty Hollow Lake Dam - Final Engineering Design 12/13/2022 Detailed Cost Breakdown	Project Fee Summary	
	Basic Services	258,020
	Special Services	141,528
	<b>Total Project</b>	<b>399,548</b>

Basic or Additional	Task Description	Expenses											Total Expense Effort	
		Tech Charge	Miles	Meals	Hotel	B&W (sheet)	Color (sheet)	Binding (each)	Lg Format - Bond - B&W (sq. ft.)	Lg Format - Glossy/Mylar - B&W (sq. ft.)	Other			
<b>BASIC SERVICES</b>		<b>BASIC SERVICES</b>												
Basic	<b>Task 1 - Project Management</b>	0												\$ -
Basic	A. Prepare For And Attend Up To Nine (9) Progress Meetings With FBCDD	58	720			600								\$ 1,633
Basic	B. Routine Project Management Activities (Quality Control and Assurance, Status Reporting, Invoicing, Schedule Updates, etc.)	77												\$ 650
Basic		0												\$ -
Basic	<b>Task 2 - Dam Breach Analysis</b>	0												\$ -
Basic	A. Data Collection	6												\$ 51
Basic	B. Develop Dam Breach Models	26												\$ 221
Basic	C. Evaluate Hazard Classification	10												\$ 85
Basic	D. Design Flood Iterations	60												\$ 510
Basic	E. Prepare Breach Inundation Maps	22												\$ 187
Basic	F. Combined Technical Report	36												\$ 306
Basic	G. Review Findings w/ FBCDD	10												\$ 85
Basic	H. Coordinate w/ TCEQ	12												\$ 102
Basic		0												\$ -
Basic	<b>Task 3 - Engineering Design</b>	0												\$ -
Basic	A. 50% Submittal	0												\$ -
Basic	i. Conduct Engineering Site Visit	18	60											\$ 174
Basic	ii. Review Data from Surveying Sub-Consultant	18												\$ 153
Basic	iii. Review Data from Geotechnical Sub-Consultant	30												\$ 255
Basic	iv. General Civil Design Activities	50												\$ 425
Basic	v. Perform Slope Stability Analyses for Proposed Cross-Sections	64												\$ 544
Basic	vi. H&H Design Activities (Principal Spillway Design)	96												\$ 816
Basic	vii. Perform Environmental Screening Activities	52	60											\$ 480
Basic	viii. Develop 50% Construction Drawings	396												\$ 3,028
Basic	ix. Develop 50% Opinion of Probable Construction Cost (OPCC)	30												\$ 255
Basic	x. Develop Table of Contents for 50% Project Manual	5												\$ 43
Basic		0												\$ -
Basic	B. 90% Submittal	0												\$ -
Basic	i. Additional General Civil Design Activities	50												\$ 425
Basic	ii. Additional Geotechnical Design Activities	44												\$ 374
Basic	iii. Additional H&H Design Activities	44												\$ 374
Basic	iv. Additional Environmental Screening Activities	32												\$ 272
Basic	v. Structural Design Activities (Principal Spillway Design)	76												\$ 646
Basic	vi. Develop 90% Construction Drawings	254												\$ 2,159
Basic	vii. Develop 90% OPCC	14												\$ 119
Basic	viii. Develop 90% Project Manual	32												\$ 272
Basic		0												\$ -
Basic	C. Issued for Bid (IFB) Submittal	0												\$ -
Basic	i. Develop IFB Construction Drawings	108												\$ 918
Basic	ii. Develop IFB OPCC	6												\$ 51
Basic	iii. Develop IFB Project Manual	12												\$ 102
Basic	iii. Provide Submittal Package to TCEQ	14												\$ 119
Basic		0												\$ -
<b>ADDITIONAL SERVICES</b>		<b>ADDITIONAL SERVICES</b>												
Additional	<b>Task 1 - Survey Services</b>	0												\$ -
Additional	A. Control Surveying	0												\$ -
Additional	B. Property Ownership Surveying	0												\$ -
Additional	C. Topographic Surveying	0												\$ -
Additional		0												\$ -
Additional	<b>Task 2 - Geotechnical Services</b>	0												\$ -
Additional	A. Geotechnical Exploration	0												\$ -
Additional	B. Laboratory Testing Program	0												\$ -
Additional	C. Engineering Analyses and Recommendations	0												\$ -
Additional		0												\$ -
Additional	<b>Task 3 - Bid Phase Services</b>	0												\$ -
Additional	A. Produce Documents for Contractor Procurement	20												\$ 170
Additional	B. Assist FBCDD with Advertisement	12												\$ 102
Additional	C. Prepare for and Attend Pre-Bid Conference	4	60											\$ 72
Additional	D. Receive and Respond to Contractor Questions	8												\$ 68
Additional	E. Assist FBCDD with Review of Bids	8												\$ 68
Additional	F. TCEQ Coordination	10												\$ 85
Additional	G. Produce Final/Conformed Construction Documents	8												\$ 68
Additional		0												\$ -
Additional	<b>Task 4 - Construction Phase Services (General Rep)</b>	0												\$ -
Additional		0												\$ -
Additional	A. Prepare for and Attend Pre-Construction Meeting	4												\$ 34
Additional	B. Contractor Payment Requests (12 at 0.5 Hour Per Payment Request)	6												\$ 51
Additional	D. Progress Meetings and Site Visits	0												\$ -
Additional	Monthly Progress Meetings and Site Visit Observation Reports (12)	48	720											\$ 858
Additional	Additional Site Visits (0) - NOT INCLUDED	0												\$ -
Additional	Substantial Completion Walk-Through	4	60											\$ 72
Additional	Final Completion Walk-Through	4	60											\$ 72
Additional	E. Contractor Proposals and Claims	6												\$ 51
Additional	F. Contractor Submittals	0												\$ -
Additional	Record Data/Certified Test Reports/Lab Test Reports (50 at 0.5 Hour Per Submittal)	25												\$ 213
Additional	Requests for Information (RFIs) (8)	8												\$ 68
Additional	Additional Submittal Reviews (0) - NOT INCLUDED	0												\$ -
Additional	G. Record Drawings	28												\$ 238
Additional		0												\$ -
Additional		0												\$ -
<b>Total Hours / Quantity</b>		<b>1,923</b>	<b>1,740</b>			<b>600</b>								
<b>Total Effort!</b>		<b>\$ 16,341</b>	<b>\$ 1,088</b>	<b>\$ -</b>	<b>\$ 690</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ -</b>	<b>\$ 18,119</b>



**EXHIBIT 3**  
**PROJECT SCHEDULE**

ID	Task Name	Duration	Start	Finish	Predecessors	Resource Names	2023 2024 2025																									
							Qtr 1, 2023	Qtr 2, 2023	Qtr 3, 2023	Qtr 4, 2023	Qtr 1, 2024	Qtr 2, 2024	Qtr 3, 2024	Qtr 4, 2024	Qtr 1, 2025	Qtr 2, 2025																
							Dec	Jan	Feb	Mar	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Apr									
1	<b>Kitty Hollow Dam - Engineering Design Services</b>	540 days	Tue 2/14/23	Mon 3/10/25			[Gantt bar from 2/14/23 to 3/10/25]																									
2	Notice to Proceed	0 days	Tue 2/14/23	Tue 2/14/23			[Milestone diamond at 2/14]																									
3	<b>Task 1 - Project Management</b>	280 days	Tue 2/14/23	Mon 3/11/24			[Gantt bar from 2/14/23 to 3/11/24]																									
4	Project Kick-Off Meeting	0 days	Mon 2/20/23	Mon 2/20/23	2FS+1 wk		[Milestone diamond at 2/20]																									
5	Project Management Activities	280 days	Tue 2/14/23	Mon 3/11/24	2		[Gantt bar from 2/14/23 to 3/11/24]																									
6	<b>Task 2 - Dam Breach Analysis</b>	175 days	Tue 2/21/23	Mon 10/23/23			[Gantt bar from 2/21/23 to 10/23/23]																									
7	FNI Performs Dam Breach Analysis	20 wks	Tue 2/21/23	Mon 7/10/23	4		[Gantt bar from 2/21/23 to 7/10/23]																									
8	FNI Submits DRAFT Report to FBCDD & TCEQ	0 days	Mon 7/10/23	Mon 7/10/23	7		[Milestone diamond at 7/10]																									
9	FBCDD & TCEQ Review of DRAFT Report	60 days	Tue 7/11/23	Mon 10/2/23	8		[Gantt bar from 7/11/23 to 10/2/23]																									
10	FNI Prepares FINAL Report	15 days	Tue 10/3/23	Mon 10/23/23	9		[Gantt bar from 10/3/23 to 10/23/23]																									
11	FNI Submits FINAL Report to FBCDD & TCEQ	0 days	Mon 10/23/23	Mon 10/23/23	10		[Milestone diamond at 10/23]																									
12	<b>Task 3 - Engineering Design</b>	275 days	Tue 2/21/23	Mon 3/11/24			[Gantt bar from 2/21/23 to 3/11/24]																									
13	<b>Survey Services</b>	35 days	Tue 3/14/23	Mon 5/1/23			[Gantt bar from 3/14/23 to 5/1/23]																									
14	Field Work and Office Processing	6 wks	Tue 3/14/23	Mon 4/24/23	4FS+3 wks		[Gantt bar from 3/14/23 to 4/24/23]																									
15	Deliverables to FNI	1 wk	Tue 4/25/23	Mon 5/1/23	14		[Milestone diamond at 5/1]																									
16	<b>Geotechnical Services</b>	50 days	Tue 3/14/23	Mon 5/22/23			[Gantt bar from 3/14/23 to 5/22/23]																									
17	Field Work and Office Processing	8 wks	Tue 3/14/23	Mon 5/8/23	4FS+3 wks		[Gantt bar from 3/14/23 to 5/8/23]																									
18	Deliverables to FNI	2 wks	Tue 5/9/23	Mon 5/22/23	17		[Milestone diamond at 5/22]																									
19	<b>50% Submittal</b>	100 days	Tue 2/21/23	Mon 7/10/23			[Gantt bar from 2/21/23 to 7/10/23]																									
20	Engineering Design Activities (Includes Surveying and Geotechnical Sub-Consultant Work)	60 days	Tue 2/21/23	Mon 5/15/23	4		[Gantt bar from 2/21/23 to 5/15/23]																									
21	Development of Construction Documents	20 days	Tue 5/16/23	Mon 6/12/23	20		[Gantt bar from 5/16/23 to 6/12/23]																									
22	Internal QA/QC	10 days	Tue 6/13/23	Mon 6/26/23	21		[Gantt bar from 6/13/23 to 6/26/23]																									
23	Submit to FBCDD & Courtesy Copy to TCEQ	0 days	Mon 6/26/23	Mon 6/26/23	22		[Milestone diamond at 6/26]																									
24	FBCDD Review	10 days	Tue 6/27/23	Mon 7/10/23	23		[Gantt bar from 6/27/23 to 7/10/23]																									
25	<b>90% Submittal</b>	70 days	Tue 7/11/23	Mon 10/16/23	14		[Gantt bar from 7/11/23 to 10/16/23]																									
26	Engineering Design Activities	35 days	Tue 7/11/23	Mon 8/28/23	24		[Gantt bar from 7/11/23 to 8/28/23]																									
27	Development of Construction Documents	15 days	Tue 8/29/23	Mon 9/18/23	26		[Gantt bar from 8/29/23 to 9/18/23]																									
28	Internal QA/QC	10 days	Tue 9/19/23	Mon 10/2/23	27		[Gantt bar from 9/19/23 to 10/2/23]																									
29	Submit to FBCDD	0 days	Mon 10/2/23	Mon 10/2/23	28		[Milestone diamond at 10/2]																									
30	FBCDD Review	10 days	Tue 10/3/23	Mon 10/16/23	29		[Gantt bar from 10/3/23 to 10/16/23]																									
31	<b>Issued for Bid Submittal</b>	105 days	Tue 10/17/23	Mon 3/11/24			[Gantt bar from 10/17/23 to 3/11/24]																									
32	Development of Construction Documents	10 days	Tue 10/17/23	Mon 10/30/23	30		[Gantt bar from 10/17/23 to 10/30/23]																									
33	Internal QA/QC	5 days	Tue 10/31/23	Mon 11/6/23	32		[Gantt bar from 10/31/23 to 11/6/23]																									
34	Submit to FBCDD & TCEQ And Begin Advertisement	0 days	Mon 11/6/23	Mon 11/6/23	33		[Milestone diamond at 11/6]																									
35	TCEQ Review (90 Day Placeholder)	90 days	Tue 11/7/23	Mon 3/11/24	34		[Gantt bar from 11/7/23 to 3/11/24]																									
36	<b>Task 4 - Construction Phase Services (Assumes 12 Month Const. Duration)</b>	52 wks	Tue 3/12/24	Mon 3/10/25	35		[Gantt bar from 3/12/24 to 3/10/25]																									

Project: Kitty Hollow Dam - Engineering Design Services

Task		Project Summary		Inactive Milestone		Manual Summary Rollup		Deadline	
Split		External Tasks		Inactive Summary		Manual Summary		Progress	
Milestone		External Milestone		Manual Task		Start-only		Manual Progress	
Summary		Inactive Task		Duration-only		Finish-only			

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EXHIBIT 4  
SURVEY SERVICES – SUB PROPOSAL



25211 Grogans Mill, Suite 375  
 The Woodlands, Texas 77380  
 Tel.: 281-681-9766 Fax: 281-681-9779  
 Firm No. 100159-00

**Estimate for Survey Services**

Client Name: Mr. Kevin Kiniry  
 Business Name: Freese and Nichols, Inc.

**Professional Land Surveying Services**

**Topographic Survey (with boundary limits) of approximately 12,000 linear feet for raising the existing dam embankment and replacing the principal spillway at Kitty Hollow Dam in Fort Bend County, Texas.**

Phone: tel. 713-600-6849

**Control for Topographic Survey (5/8-inch iron rods every 1000 feet and 90D nail at every cross section for total station setup to collect survey data)**

Description	Hours	Rate	Cost
2 - Man Crew	50	\$ 160.00	\$ 8,000.00
RPLS	5	\$ 145.00	\$ 725.00
Survey Technician	25	\$ 95.00	\$ 2,375.00
			\$ 11,100.00
<b>Fee</b>			<b>\$11,100.00</b>

**Boundary Survey**

Identify boundary limits of Kitty Hollow Reservoir on the south, west and north side where the dam embankment will be raised (project limits)

Description	Hours	Rate	Cost
2 - Man Crew	60	\$ 160.00	\$ 9,600.00
RPLS	15	\$ 145.00	\$ 2,175.00
Survey Technician	25	\$ 95.00	\$ 2,375.00
			\$ 14,150.00
<b>Fee</b>			<b>\$14,150.00</b>

**Topographic Survey of approximately 12,000 linear feet of existing dam embankment at 200 foot intervals and extending minimum of 50 foot from toe of dam**

Topographic Survey shall include cross sections at 200 foot intervals and to extend 50 foot on each side of dam from toe. Cross sections will be taken at longer widths near the southwest side of the reservoir near State Highway 6 where Oyster Creek is farther from the dam. There is approximately 6,000 linear feet (being minimum 50 feet on each side of toe) of line to cut for line of sight needed for survey equipment due to heavy vegetation on both sides of the dam. Approximately 7 cross sections will be completed per day (60 total cross sections). The Principal spillway will contain detailed topographic survey data on the intake structure, outlet pipes, and discharge structure as well as cross sections upstream and downstream towards Oyster Creek.

Description	Hours	Rate	Cost
2 - Man Crew	90	\$ 160.00	\$ 14,400.00
RPLS	3	\$ 145.00	\$ 435.00
Survey Technician	40	\$ 95.00	\$ 3,800.00
			\$ 18,635.00
<b>Fee</b>			<b>\$18,635.00</b>

**Boundary and Topographic Survey Fee Lump Sum \$43,885.00**

**Scope of Services for this survey see next sheet**

1. Project will be prepared in the Texas Coordinate System, South Central NAD 83. Vertical will be based on the existing Leica RTK network (NAVD88) or specified datum from the client. 2020 Civil 3d cad files will be prepared in Surface coordinate location (aerial images will not line up with survey data unless prepared in Grid coordinate locate) unless directed otherwise by client.
2. A graphic scale will be shown in feet w/ written scale noted under the graphic scale. A North arrow placed in model space.
3. GeoSolutions will prepare a TIN model with triangulation lines
4. GeoSolutions will submit an electronic file for design. A topographic survey can be prepared with border if requested.
5. Survey will be completed within 30 business days of notice to proceed (signed/approved copy of this proposal) and depending on weather conditions and holidays;
8. GeoSolutions will submit a cad file as the final deliverable.
9. Payment terms will be net 30 days from delivery of invoice.

If you have any questions, please do not hesitate to call.

Signed:   
 Stephen M. Chruszczak

Approved \_\_\_\_\_

Date: December 8, 2022

Date: \_\_\_\_\_

(If approved, initial survey request, sign above and return by fax)

**EXHIBIT 5**  
**GEO TECHNICAL SERVICES – SUB PROPOSAL**

December 12, 2022

**Freese and Nichols, Inc.**10497 Town and Country Way, Suite 600  
Houston, TX 77024  
Attention: Kevin KiniryRe: Proposal Geotechnical Exploration  
**Kitty Hollow Dam Improvements**  
Highway 6  
Fort Bend County, Texas  
ALPHA Proposal No. 94423-Rev

ALPHA TESTING, LLC (hereinafter "ALPHA") is hereby pleased to submit to **Freese and Nichols, Inc. (hereinafter "Client")** the following proposal for a Geotechnical Exploration on the project referenced above. The purpose of the geotechnical study will be to provide information for use in design of typical foundations for the proposed project.

**Project Information**

We understand the project consists of raising an existing dam embankment and replacing a principal spillway at Kitty Hollow Dam. The length of earthen dam is approximately 12,000 LF. The height of existing dam is about 16 ft. It is planned to increase the height of the dam to about 19 ft. This geotechnical exploration will be in accordance with TCEQ requirements (Chapter 4 of Design & Construction Guidelines for Dams in Texas). We understand seepage analysis is not required at this time.

**Scope of Work**

This study will include the following evaluations:

Subsurface soil and depth-to-water level observations at the planned boring locations to depths that would typically be significantly affected by foundations.

Engineering characterization of the subsurface materials observed.

Typical foundation types suitable for support of the proposed project.

Data required for design of typical foundation systems for the project.

Stability analyses of the dam in general compliance with TCEQ requirements, including slope stability and sliding stability.

Recommendations regarding earthwork, including grading and excavation, backfilling and compaction, treatment of in-place soils for the support of foundations, and anticipated construction problems due to observed subsurface conditions (based on our experience with similar soils under similar conditions).

We propose to explore the subsurface soil conditions at the project site by drilling 11 test borings (one (1) boring per 1,200 lf of dam as requested). We estimate the necessary information will be provided by drilling two (2) test borings to a depth of 50 ft. and nine (9) test borings to a depth of 30 ft. At the completion of drilling operations, boreholes will be backfilled and plugged with bentonite material, and any pavement that is penetrated will be patched with similar material. Settlement of boreholes may occur over time. ALPHA shall not be responsible for any settlement of boreholes that may occur after initial backfilling. The number and depth of the test borings required to obtain the necessary field data may vary depending on the actual soil conditions observed. If unusual subsurface conditions are encountered and alternate field work is indicated, we will consult with the Client prior to initiating any additional services. Please note, regardless of the number of borings performed subsurface conditions between borings may vary.

The study may also include laboratory tests to evaluate the moisture condition, classification, shear strength, permeability and/or potential for shrink/swell behavior of select soil samples. The specific types and quantities of tests will be determined based on soil conditions observed in the borings performed for this study. Our laboratories are fully equipped with modern equipment for soil and rock testing and tests are performed by trained, qualified technicians in compliance with the applicable specifications. Field exploration programs are conducted with drilling equipment operated by experienced and reliable drillers. The field and laboratory staff are supervised by Professional Engineers.





Results of the field exploration and laboratory tests will be utilized in the engineering analysis and the formulation of our recommendations. Results of our study, including the substantiating data and our recommendations, will be presented in a written report prepared by a Licensed Professional Engineer.

**Fee and Schedule**

Our fee for performance of the scope of work presented herein for the project described will be as noted below. We will not exceed this figure without your approval. Boring operations would commence within about five (5) working days from your notification to proceed. The complete written report would be sent to you in electronic PDF format within about 20 working days following completion of the boring operations.

<b>Geotechnical Lump Sum Fee</b>	<b>\$45,000.00</b>
<b>Working Days to Complete Study</b>	<b>30 days</b>

The above cost estimate is valid for 90 days and is based on Client providing suitable access and entry to test boring locations during normal business hours. Client represents that it has full authority from the current landowner to engage ALPHA to perform this study. The pricing provided above assumes test boring locations can be accessed using standard, truck-mounted drilling equipment. Surveying of boring locations and elevations is not included in the cost estimate.

Prior to start of drilling, ALPHA will contact Texas One-Call utility clearance (Texas811) to mark and clear utilities at the boring locations. The Client shall provide any known site specific utility information upon acceptance of this proposal. ALPHA is not responsible for damage to any below grade utilities of which we are not made aware.

Please note: Our field equipment may rut the site during drilling operations. A concerted effort will be made to minimize such problems, however, ALPHA is not responsible for re-grading or repairing rutted areas if they develop.

Due to the ever-changing circumstances surrounding the COVID-19 Virus, situations may arise during the performance of this agreement that affect availability of resources and staff of ALPHA, the Client, other consultants, and public agencies. Therefore, there could be changes in the referenced schedule and/or project costs. ALPHA will exercise reasonable efforts to overcome the challenges presented by current circumstances, but ALPHA will not be liable to Client for any delays, expenses, losses, or damages of any kind arising out of the impact of the COVID-19 Virus.

*If this Proposal is acceptable, please have an authorized officer sign in the space provided below in the **Proposal Acceptance Form** and return a signed copy via either email or fax, or the signed original to our office. We will consider receipt of a signed original or copy of this Proposal as our Notice to Proceed. Work cannot be initiated prior to receiving a signed copy of this Proposal. If a copy is e-mailed or faxed, client consents to such copy of a signature, or electronic signature, as serving as an original signature. Unless prior arrangements are agreed to in writing, payment for services described in this Proposal is due within 30 days of invoice date. Payment of the invoice is not contingent on Client’s agreement or acceptance of ALPHA’s design recommendations or report discussion. If CLIENT objects to any portion of an invoice or report, it shall notify ALPHA in writing within ten (10) days from the date of actual receipt of the invoice of the amount and nature of the dispute, and shall timely pay undisputed portions of the invoice.*

By execution of this Proposal, the undersigned Client acknowledges and agrees that the attached “Terms and Conditions” have been provided or made available to Client and Client agrees that such Terms and Conditions shall be applied to the present Proposal and shall be fully binding upon Client. The “Terms and Conditions” are attached to this proposal as “Exhibit A” and are fully incorporated into this Proposal by reference as if set forth herein.



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Thank you for this opportunity to offer our services. We look forward to working with you on this project.

Sincerely,

**ALPHA TESTING, LLC**

A blue ink signature of Theodore A. (Tony) Janish, P.E.

Theodore A. (Tony) Janish, P.E.  
Vice President

A blue ink signature of Duraisamy S. (Roy) Saravanathiiban, Ph.D., P.E.

Duraisamy S. (Roy) Saravanathiiban, Ph.D., P.E.  
Senior Geotechnical Engineer

Attachments:    Proposal Acceptance Form  
                          "Exhibit A" Terms and Conditions



**GEOTECHNICAL  
PROPOSAL ACCEPTANCE FORM**

Date: December 12, 2022

ALPHA Proposal No.: 94423-Rev

Project Name: Kitty Hollow Dam Improvements

Project Location: Hwy 6, Fort Bend County, Texas

CLIENT: \_\_\_\_\_

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_

ATTENTION: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

EMAIL: \_\_\_\_\_ FAX: \_\_\_\_\_

**\*\*\*\*\*REQUIRED INFORMATION\*\*\*\*\* (Must be completed in order to process)**

ACCOUNTS PAYABLE CONTACT: \_\_\_\_\_

*Check box if  
same as above*

ADDRESS: \_\_\_\_\_

CITY/STATE/ZIP: \_\_\_\_\_

EMAIL: \_\_\_\_\_ TELEPHONE: \_\_\_\_\_

Land Owner's Name: \_\_\_\_\_

Address: \_\_\_\_\_

City, St. Zip: \_\_\_\_\_

Project Legal  
Description: \_\_\_\_\_

Project County: \_\_\_\_\_

The undersigned hereby accepts all the Terms and Conditions set forth in this Proposal and warrants that he/she has full authority to bind the Client.

PROPOSAL ACCEPTED BY: \_\_\_\_\_

Signature

Title

Date

PRINTED NAME: \_\_\_\_\_

**REPORT DISTRIBUTION**

COMPANY

ATTENTION

EMAIL ADDRESS

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_



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## “EXHIBIT A” Terms and Conditions

### **Section 1: The Agreement**

The Agreement between the parties, which shall describe and govern CLIENT’s engagement of ALPHA TESTING, LLC (“ALPHA”) to provide only the services (“Services”) in connection with the project (“Project”) which are specifically identified and agreed to in the proposal (“Proposal”), consists of the Proposal, these General Terms and Conditions (“Terms”), ALPHA’s fee schedule, and any exhibits or attachments referenced in any of these documents. Together these elements constitute the entire agreement between the parties, superseding any and all prior negotiations, correspondence, or agreements, either written or oral, with respect to the subject matter of this engagement. This Agreement may only be modified by mutual signed, written agreement. In the event of a conflict between these Terms and the Proposal or exhibits, the following order of precedence shall prevail: (i) These Terms, (ii) the Proposal, and (iii) any exhibits or attachments referenced in the foregoing.

### **Section 2: Standard of Care**

The Services shall be performed in a manner consistent with the level of care and skill ordinarily exercised by members of ALPHA’s profession currently practicing under similar conditions and in the same locality as the Project. Interpretations and recommendations by ALPHA will be based solely on information discovered by, or made available to, ALPHA during the course of the engagement. In connection with such information, CLIENT recognizes that subsurface conditions across the site may vary from those observed at test locations, including but not limited to locations where density tests and concrete tests, borings, surveys, or explorations are made, and that site conditions may change over time, and as such, CLIENT shall be solely responsible for determining the locations and scope of testing related to the subsurface exploratory program and assumes all risks related thereto. ALPHA shall not be responsible for the use or interpretation of such information by non-parties to this Agreement nor shall ALPHA be responsible for changed site conditions or for subsurface conditions at locations where testing, borings, surveys, or explorations are not made. If Client provides ALPHA’s report to any third Party, Client shall make such third party aware of this limitation of liability, and shall defend, indemnify, and hold ALPHA harmless from any action against ALPHA by such third party.

**ALPHA MAKES NO OTHER REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, REGARDING THE SERVICES, AND EXPRESSLY DISCLAIMS ANY OTHER WARRANTIES, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF GOOD AND WORKMANLIKE PERFORMANCE AND OF FITNESS FOR A PARTICULAR PURPOSE.**

### **Section 3: Site Access and Conditions**

CLIENT shall grant to, or obtain for, ALPHA unimpeded access to the Project site for all equipment and personnel necessary for the performance of the Services, and access necessary for ALPHA’s personnel to photograph the Project site. As required to effectuate such access, CLIENT shall notify all owners, lessees, contractors, subcontractors, and other possessors of the Project site that ALPHA must be allowed free access to the site. CLIENT understands that, in the normal course of performing the Services, some damage, including but not limited to injury to vegetation, rutting, and cracking of concrete, may occur as a result of ALPHA’s performance of the Services, and further agrees that ALPHA is not responsible for the correction of any such damage caused by ALPHA unless otherwise specified in the Proposal. **CLIENT is solely responsible for the accuracy of locations for all subterranean structures and utilities, and CLIENT waives any claim against ALPHA, and shall defend (with counsel acceptable to ALPHA), indemnify, and hold ALPHA harmless from any claim or liability for injury, damages, or loss by any party, including costs of defense and attorneys’ fees, arising from damage caused as a result of subterranean structures and utilities not being properly identified or accurately located by CLIENT.** In addition, and without limiting the foregoing, CLIENT shall compensate ALPHA for any consequential damages resulting from any such claim, including without limitation time spent or expenses incurred by ALPHA in defense of any such claim, with such compensation to be based upon ALPHA’s prevailing fee schedule and expense reimbursement policy.

### **Section 4: CLIENT’s Responsibility and Project Understanding**

CLIENT shall provide or otherwise make available to ALPHA all information in its possession or subject to its control regarding existing and proposed conditions at the site. Such information shall include, but not be limited to, plot plans, topographic surveys, hydrographic data, and previous soil data, including borings, field and laboratory tests, written reports, drawings, plans and specifications. CLIENT shall immediately, but in no event later than twenty-four (24) hours after its receipt, transmit to ALPHA any new information concerning site conditions that becomes available, and any change in plans or specifications concerning the Project to the extent such information may affect ALPHA’s performance of the Services. CLIENT shall, upon 24 hours oral or written notice, provide a representative at the job site to supervise and coordinate the Services.

Additional responsibilities of the CLIENT include: review of ALPHA’s work for overall coordination with the work of other consultants, including any architects and engineers; with reasonable promptness, but in no event later than 48 hours, provide all available information regarding requirements for ALPHA’s work; upon request by ALPHA, the CLIENT shall furnish the services of other reasonably required consultants, including surveys, testing laboratory, etc.; prepare and assemble specifications for the General Conditions and Supplementary Conditions and all architectural components of the project, and coordinate assembly of ALPHA’s specification sections into a proper format; notify ALPHA immediately if the Client, any architect, or any engineer becomes aware of any item or condition which in directly, or indirectly, may affect the performance of Alpha’s work and any fault or claimed deficiency with ALPHA’s work, or nonconformance with the Contract Documents and provide ALPHA a reasonable opportunity to cure any such deficiency or nonconformance; confer with ALPHA before issuing interpretations or clarifications of the documents prepared by ALPHA; forward to ALPHA for review and recommendation all construction phase submittals that pertain to ALPHA’s work; and advise ALPHA of the identity and scope of services of other consultants participating in the Project. Client shall be solely responsible for coordinating the services of its consultants with the services of ALPHA.

**ALPHA shall not be liable for any incomplete or inaccurate information furnished by CLIENT or damages caused by CLIENT’s failure to strictly adhere to the recommendations of ALPHA contained in any Geotechnical Report, Addendum or other correspondence, and CLIENT shall defend (with counsel acceptable to ALPHA) indemnify and hold ALPHA harmless against any claims, demands or liability, including costs of defense and attorneys’ fees, arising out of, related to, or contributed to by such incomplete or inaccurate information or failure to follow the recommendations of ALPHA. CLIENT waives any claim it might have against ALPHA for damages arising out its failure to timely provide accurate information or its failure to timely provide new, changed, or additional information, as set forth in the preceding paragraph, and further agrees to indemnify and hold harmless ALPHA from any claim or liability resulting from CLIENT’s failure to timely provide such new, changed, or additional information.**



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### **Section 5: Project Change**

In the event CLIENT, the Project owner, Architect, Structural/Civil Engineer or other party makes any changes in the initial information provided by the client, including, but not limited to the size and location of the planned improvements, or makes any changes or alterations to any plans and/or specifications provided to ALPHA, CLIENT agrees to defend and hold ALPHA harmless from any liability arising out of such changes, and CLIENT assumes full responsibility for any claims, damages or liabilities arising out of or related to such changes unless CLIENT has given ALPHA prior written notice of such changes and has received from ALPHA written consent for such changes.

### **Section 6: Confidentiality**

All data, forms, software, or any other materials developed by ALPHA pursuant to the performance of Services under this Agreement, or supplied to or obtained by ALPHA from CLIENT, or generated by ALPHA or its subcontractors is confidential (the "Confidential Material") and will be afforded Confidential Treatment by ALPHA, its employees, agents, affiliates, and subcontractors. Proprietary concepts and systems of ALPHA, and ideas developed by ALPHA during the performance of the Services shall remain the sole property of ALPHA ("Alpha Intellectual Property"). Confidential Treatment includes the following: (i) The Confidential Material will be available only to employees of ALPHA; and (ii) Confidential Material will not be disclosed to any third party without the prior authorization of CLIENT. Upon completion of the Services or other termination of this Agreement, any Confidential Material retained by ALPHA not previously provided to third parties pursuant to Client authorization shall be retained by ALPHA for a period of at least 60 days, during which time period, such Confidential Material will be returned to CLIENT upon request by CLIENT. After this time period, ALPHA shall have the right, but not the obligation, to destroy such Confidential Material, thus terminating its confidentiality obligations. If Confidential Material is retained by ALPHA past such time period, the obligations stated in this Section 5 shall survive until the earliest of the following occur: (i) Confidential Material has become available to the general public through no fault of ALPHA; or (ii) Confidential Material is received by ALPHA from others who are in lawful possession of such and who by such disclosure are not breaching any obligation to CLIENT.

### **Section 7: Sample Disposal**

Samples of soil, rock, water, waste or other materials contaminated by hazardous substances, including asbestos, obtained from the Project site are and remain the property of the CLIENT. ALPHA shall retain such samples for no longer than fourteen (14) calendar days after the issuance of any document that includes the data obtained from them, unless other arrangements are mutually agreed upon in writing. It is CLIENT's responsibility to select and arrange for lawful disposal procedures that encompass removing the contaminated samples from ALPHA's custody and transporting them to a suitable disposal site. Accordingly, unless CLIENT indicates otherwise, within the fourteen (14) day period referenced above, CLIENT hereby instructs ALPHA to make arrangements on behalf of CLIENT and at CLIENT's sole cost and expense, for proper transportation and disposal of contaminated samples with appropriate licensed parties. Due to the risks to which ALPHA may be exposed during transportation and disposal of contaminated samples, CLIENT waives any claim against ALPHA, and shall defend, indemnify, and hold ALPHA harmless from any claim or liability for injury or loss, including costs of defense and attorneys' fees, arising out of or related to from ALPHA's service in arranging for proper transportation and disposal of contaminated samples on behalf of CLIENT. There are extra costs involved in this disposal by ALPHA of samples contaminated with highly toxic and/or hazardous substances (i.e. PCBs, Dioxins, Cyanide, Pesticides, etc.). In this case, the CLIENT shall pre-pay all transportation and disposal costs or ALPHA will return the samples to the project site for proper disposal by the Client.

### **Section 8: Construction Observations**

ALPHA shall have no authority, duty or responsibility to reject or terminate the work of any agent or contractor of CLIENT. No action, statements, or communications of ALPHA, or ALPHA's site representative, may be construed as modifying any agreement between CLIENT and others. ALPHA's presence on the Project site in no way guarantees the completion or quality of the performance of the work of any party retained by CLIENT to provide construction related services. Neither the professional activities of ALPHA, nor the presence of ALPHA or its employees, representatives, or subcontractors on the Project Site, shall be construed to impose upon ALPHA any responsibility for methods or quality of work performance, sequencing of construction, or safety conditions at the Project site. In that regard, CLIENT acknowledges that ALPHA shall not be responsible for the means, methods, techniques or sequences of construction as these are the sole responsibility of the contractor. CLIENT further acknowledges that CLIENT or its general contractor is solely responsible for job site safety, and warrants and agrees that such responsibility shall be made evident in the Project owner's agreement with the general contractor. CLIENT shall make ALPHA an additional insured under any general contractor's general liability insurance policy.

### **Section 9: Ownership of Documents**

All reports, boring logs, field data, field notes, laboratory test data, calculations, estimates and other documents prepared by ALPHA in connection with this engagement, shall remain the property of ALPHA. CLIENT agrees that all reports and other material(s) furnished by ALPHA to CLIENT, or to CLIENT's agents, for which CLIENT has not paid will be returned to ALPHA upon demand and will not be used by CLIENT or others for any purpose whatsoever. Unless otherwise required by law, ALPHA will retain all pertinent records relating to the Services performed for a period not exceeding five years following submission of any report, as referred to herein, during which period the records will be made available to CLIENT at a reasonable and mutually convenient time. After such five year period, ALPHA shall have the right, but not the obligation, to, in its sole discretion, destroy any or all of such documents.

### **Section 10: Termination**

This Agreement may be terminated by ALPHA without cause upon ten (10) days' written notice by the terminating party. This Agreement may also be terminated for cause by the non-defaulting party if, after seven (7) days after written notice of a default in the performance of any material provision of this Agreement, the defaulting party fails to cure or correct such default. In the event of termination, ALPHA will be paid for services performed through the effective date of termination, plus reasonable termination expenses, including the cost of completing analysis, records, and reports necessary to document job status at the time of termination.



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### **Section 11: RISK ALLOCATION AND LIMITATION OF LIABILITY**

The parties acknowledge that a variety of risks potentially affect ALPHA by virtue of entering into an agreement to perform the Services. The parties further acknowledge and agree that there is no disparity in bargaining power between the parties. **IN ORDER FOR CLIENT TO OBTAIN THE BENEFIT OF A LOWER FEE THAN WOULD OTHERWISE BE AVAILABLE, CLIENT AGREES TO LIMIT ALPHA'S LIABILITY TO CLIENT, AND TO ANY AND ALL OTHER THIRD PARTIES, FOR CLAIMS ARISING OUT OF OR IN ANY WAY RELATED TO THE SERVICES PERFORMED OR TO BE PERFORMED BY ALPHA. ACCORDINGLY, THE CLIENT AGREES THAT THE TOTAL AGGREGATE LIABILITY OF ALPHA SHALL NOT EXCEED THE TOTAL FEE FOR THE SERVICES RENDERED ON THE PROJECT, OR \$25,000, WHICHEVER IS LOWER, FOR ANY LIABILITIES, INCLUDING BUT NOT LIMITED TO NEGLIGENT PROFESSIONAL ACTS OR ERRORS OR OMISSIONS, AND CLIENT AGREES TO INDEMNIFY ALPHA FOR ALL LIABILITIES IN EXCESS OF THE MONETARY LIMITS ESTABLISHED.** Client agrees that in no instance shall ALPHA be responsible, in total or in part, for the errors or omissions of any other professional, contractor, subcontractor or any other third party. Client also agrees that ALPHA shall not be responsible for the means, methods, procedures, performance, quality or safety of the construction contractors or subcontractors, or for their errors or omissions.

### **Section 12: Discovery of Unanticipated Hazardous Materials**

CLIENT represents and warrants that it has made reasonable efforts to discover and has informed ALPHA of known or suspected hazardous materials on or near the Project site. The parties acknowledge that hazardous materials may exist at a site even if there is no reason to believe they are present. ALPHA and CLIENT agree that the discovery of such unanticipated hazardous materials constitutes a changed condition that shall require either a re-negotiation of the scope of ALPHA's Services or termination of this Agreement without cause. CLIENT recognizes that the discovery of hazardous materials may necessitate immediate protective measures to safeguard the public health and safety and shall compensate ALPHA for measures that, in ALPHA's sole professional discretion, are necessary and justified to preserve and protect the health and safety of site personnel and the public. CLIENT also shall compensate ALPHA for any equipment decontamination or other costs incident to the discovery of unanticipated hazardous materials. ALPHA shall notify CLIENT as soon as practicable should unexpected hazardous materials be encountered at the site that pose a threat to human health, safety and the environment. CLIENT agrees that, in the event of the discovery of hazardous materials at the site, it shall report such discovery to the proper authorities as required by Federal, State, and local regulations. CLIENT agrees to make the required report at the recommendation of ALPHA, or, if unable to do so, authorizes ALPHA to make such report. CLIENT shall also inform the Project site owner in the event that hazardous materials are encountered at the site.

Notwithstanding any other provision of this Agreement, CLIENT waives any claim against ALPHA, and to the maximum extent permitted by law, agrees to defend, indemnify, and hold ALPHA harmless from any claim, liability and/or defense costs for damage, injury or loss arising from or in any way related to the presence of hazardous materials on the project site, including any costs created by delay of the project and any costs associated with possible reduction of the property's value. CLIENT is responsible for ultimate disposal of any samples secured by ALPHA that are found to be contaminated, at CLIENT's sole cost and expense.

### **Section 13: Ground Water Contamination**

CLIENT acknowledges that it is impossible for ALPHA to discover, ascertain or know the exact composition of a site's subsurface, even after conducting a comprehensive exploratory program. As a result, there is a risk that drilling and sampling may result in contamination of certain subsurface areas. Although ALPHA will take reasonable precautions to avoid such an occurrence, CLIENT waives any claim against ALPHA for, and shall defend, indemnify and hold ALPHA harmless from, any claim or liability for injury or loss which may arise as a result of subsurface contamination caused by drilling, sampling, testing or monitoring well installation. CLIENT shall also adequately compensate ALPHA for any time spent and expenses incurred in defense of any such claim.

### **Section 14: Insurance**

No insurance carried by ALPHA shall be deemed to limit in any way the responsibility of any contractor or subcontractor for damages resulting from their services in connection with the Project. CLIENT shall include, or cause to be included, in the Project's construction contract such requirements for insurance coverage and performance bonds to be secured and maintained by the Project contractor as CLIENT deems adequate to insure and indemnify CLIENT and ALPHA against claims for damages, and to insure compliance of work performance and materials with Project requirements.

### **Section 15: Indemnity**

ALPHA AND THE CLIENT SHALL EACH INDEMNIFY AND HOLD THE OTHER HARMLESS FROM AND AGAINST ANY CLAIMS FOR BODILY INJURY OR DAMAGE TO TANGIBLE PROPERTY RESULTING FROM: (A) NEGLIGENT ERROR, OMISSION OR ACT OF THE INDEMNITOR OR THE INDEMNITOR'S OFFICERS, SERVANTS, EMPLOYEES OR SUBCONSULTANTS IN THE PERFORMANCE OF THE WORK HEREUNDER; OR (B) NEGLIGENT FAILURE OF THE INDEMNITOR OR THE INDEMNITOR'S OFFICERS, SERVANTS, EMPLOYEES OR SUBCONSULTANTS TO COMPLY WITH LAWS OR REGULATIONS; OR (C) NEGLIGENT FAILURE OF THE INDEMNITOR TO PERFORM UNDER ANY CONTRACT WITH ANY OTHER PARTY, ITS, OFFICERS, SERVANTS, EMPLOYEES, SUBCONSULTANTS OR CLIENTS. THIS INDEMNITY OBLIGATION SHALL SURVIVE PERFORMANCE OF THE SERVICES HEREUNDER AND SHALL BE LIMITED BY THE TERMS AND CONDITIONS REFERENCED IN SECTION 11, ABOVE.

NOTWITHSTANDING ANYTHING TO THE CONTRARY HEREIN, ALPHA WILL NOT INDEMNIFY CLIENT FOR ITS OWN NEGLIGENCE.

### **Section 16: Invoices and Payment Terms**

In consideration for the performance of the Services, ALPHA shall be paid an amount and according to terms set forth in the Proposal ("Project Cost"); however, if payment terms are not listed in the Proposal, payment for Services shall be payable within thirty (30) days of ALPHA's invoice date (the "Payment Due Date"). All payments must be paid by the Payment Due Date, and shall not be contingent upon CLIENT's receipt of separate payment, financing or closing on the project property, or other conditions whatsoever. If CLIENT objects to any portion of an invoice, it shall notify ALPHA in





writing within ten (10) days from the date of actual receipt of the invoice of the amount and nature of the dispute, and shall timely pay undisputed portions of the invoice. Past due invoices and any sums improperly withheld by CLIENT shall accrue interest thereon at the rate of one percent (1%) per month, or the maximum rate allowed by law, whichever is lower. CLIENT agrees to pay all costs and expenses, including reasonable attorney's fees and costs, incurred by ALPHA should collection proceedings be necessary to collect on Client's overdue account. Unless the Proposal specifies the Project Cost as not-to-exceed or lump sum, CLIENT acknowledges that any cost estimates and schedules provided by ALPHA may be subject to change based upon the actual Site conditions encountered, weather delays and impact and any other requirements of the CLIENT and should be used by CLIENT for planning purposes only. ALPHA will endeavor to perform the Services within the estimates but will notify CLIENT if estimates are likely to be exceeded. In the event of changed site conditions or other conditions requiring additional time, CLIENT agrees to pay the reasonable and necessary increases resulting from such additional time.

Unless otherwise specified in the Proposal, CLIENT will be solely responsible for all applicable federal, state or local duty, import, sales, use, business, occupation, gross receipts or similar tax on the Services, and for any applicable duty, import sales, uses, business, occupation, gross receipts or tax and shipping charges relating to equipment and repair parts furnished in connection with the Services. In the event ALPHA is required to respond to any subpoena or provide testimony (as a fact or expert witness) related to the Services, CLIENT shall pay ALPHA for time and expenses in accordance with ALPHA's then current fee schedule.

#### **Section 17: Non-Solicitation**

During ALPHA's performance on the Project and for a period of one (1) year after the Project is completed or otherwise terminated for any reason, CLIENT shall not, directly or indirectly, individually or on behalf of any other person, firm, partnership, corporation, or business entity of any type: (i) solicit, assist or in any way encourage any current employee, contractor or consultant of ALPHA to terminate his or her employment relationship or consulting relationship with or for ALPHA, nor will CLIENT solicit the services of any former employee or consultant of ALPHA whose service has been terminated for less than six (6) months, or (ii) solicit to the detriment of ALPHA and/or for the benefit of any competitor of ALPHA, take away or attempt to take away, in whole or in part, any customer of ALPHA or otherwise interfere with the ALPHA's relationship with any of its customers. CLIENT understands and acknowledges that ALPHA's employees, contractors and consultants are a valuable resource to ALPHA, and often these persons hold confidential and or trade secret information of ALPHA's, including proprietary technology and valuable trade secrets of ALPHA, which are vital to the business of ALPHA and whose value depends upon them not being generally known. CLIENT expressly agrees that, if ALPHA's employees, contractors, and consultants are solicited in contravention of this Non-Solicitation provision, that ALPHA will be irreparably damaged. In such event, ALPHA shall be entitled, without bond, other security, or proof of damages, to appropriate equitable remedies with respect any breach(es) of this Agreement, including injunctive relief, in addition to any other remedies available at law or in equity.

#### **Section 18: Resolution of Disputes**

(a) Mediation. All claims, disputes, controversies or matters in question arising out of, or relating to, this Agreement or any breach thereof, including but not limited to disputes arising out of alleged design defects, breaches of contract, errors, omissions, or acts of professional negligence, (collectively "Disputes") shall be submitted to mediation before and as a condition precedent to pursuing any other remedy. Upon written request by either party to this Agreement for mediation of any dispute, CLIENT and ALPHA shall select a neutral mediator by mutual agreement. Such selection shall be made within ten (10) calendar days of the date of receipt by the other party of the written request for mediation. In the event of failure to reach such agreement or in any instance when the selected mediator is unable or unwilling to serve and a replacement mediator cannot be agreed upon by CLIENT and ALPHA within ten (10) calendar days, a mediator shall be chosen as specified in the Construction Industry Mediation Rules of the American Arbitration Association then in effect, or any other appropriate rules upon which the parties may agree.

(b) Arbitration. Any claim dispute or other matter in question arising out of or related to this Agreement subject to, but not resolved by, mediation shall be subject to arbitration, which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect of the date of this Agreement. A demand for arbitration shall be made in writing, delivered to the other party of this Agreement, and filed with the person or entity administering the arbitration. A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event, shall it be made after the date when the institution of legal or equitable proceedings based on the claim, dispute or other matter in question would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the claim, dispute or other matter in question. The forgoing agreement to arbitrate, and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable in accordance with applicable law in any court having jurisdiction thereof. The award rendered by the arbitrator(s) shall be final, and judgement may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

(c) Consolidation or Joinder. Either party, as its sole discretion, may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party provided that (1) the arbitration agreement governing the other arbitration permits consolidation; (2) the arbitrations to be consolidated substantially involve common questions of law or fact; and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s). Either party, at its sole discretion, may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent. The CLIENT and ALPHA grant to any person or entity made a party to an arbitration conducted under this Section 8.3, whether by joinder or consolidation, the same rights of joinder and consolidation as the Owner and Architect under this Agreement.

The provisions of this Section 18 shall survive the termination of this Agreement.

#### **Section 19: Governing Law and Survival**

The validity of this Agreement, these terms, their interpretation and performance shall be governed by and construed and enforced in accordance with the laws of the State of Texas without regard to its conflict of laws rules or similar principles which would refer to and apply the substantive laws of another jurisdiction, and applicable international conventions and treaties. The parties hereto hereby consent and agree that venue of any arbitration action shall lie exclusively in Dallas County, Texas, and the parties hereby consent to the exclusive jurisdiction of the state courts located in Dallas County, Texas to hear and determine any claims, disputes, or award between the parties arising out of such arbitration, or for any matter found to not arise under the parties' arbitration agreement. The parties hereto expressly submit and consent in advance to such jurisdiction and hereby waive any objection to such jurisdiction. If any of the provisions contained in this agreement are held illegal, invalid, or unenforceable, the enforceability of the remaining provisions will not be impaired.