

STATE OF TEXAS           §  
                                          §  
COUNTY OF FORT BEND   §

**AGREEMENT FOR PROFESSIONAL ENGINEERING SERVICES**

THIS AGREEMENT is made and entered into by and between FORT BEND COUNTY, (hereinafter "County"), a body corporate and politic under the laws of the State of Texas, and SES HORIZON CONSULTING ENGINEERS, INC. (hereinafter "Contractor"), a company authorized to conduct business in the State of Texas.

**WITNESSETH**

WHEREAS, County desires that Contractor provide professional engineering services for the paving and drainage improvements to a new boulevard type roadway construction (100 foot right of way to include two – two lane travel ways, left turn bays and a closed storm sewer system) on Mason Road from the North Limit of Fieldstone Subdivision to Beechnut Street, for Mason Road Project Number 17405, under the 2017 Mobility Bond Program (hereinafter "Services") pursuant to SOQ 14-025; and

WHEREAS, County has determined Contractor is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Contractor have negotiated to reach a fair and reasonable amount of compensation for the provision of such Services, as required under Chapter 2254 of the Texas Government Code; and

WHEREAS, Contractor represents that it is qualified and desires to perform such services.

NOW, THEREFORE, in consideration of the mutual covenants and conditions set forth below, the parties agree as follows:

**AGREEMENT**

**Section 1. Scope of Services**

Contractor shall render the professional engineering services, including the surveying, right-of-way mapping, geotechnical investigations, roadway design, drainage design, traffic control design and utility coordination for the project as described Scope of Services and Deliverable Documents attached hereto as Exhibit A, and incorporated herein for all purposes.

**Section 2. Personnel**

2.1 Contractor represents that it presently has, or is able to obtain, adequate qualified personnel in its employment for the timely performance of the Scope of Services required under this Agreement and that Contractor shall furnish and maintain, at its own expense, adequate and sufficient personnel, in the opinion of County, to perform the Scope of Services when and as required and without delays.

2.2 All employees of Contractor shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Contractor who, in the opinion of County, is incompetent or by his conduct becomes detrimental to the project shall, upon request of County, immediately be removed from association with the project.

### **Section 3. Compensation and Payment**

3.1 Contractor's fees shall be calculated at the rates set forth in the attached Exhibit A. The Maximum Compensation for the performance of Services within the Scope of Services described in Exhibit A is Two Hundred Fifty-three Thousand, Three Hundred Twenty-three and 41/100 (\$253,323.41) as set forth in Exhibit A. In no case shall the amount paid by County under this Agreement exceed the Maximum Compensation without a written agreement executed by the parties.

3.2 All performance of the Scope of Services by Contractor including any changes in the Scope of Services and revision of work satisfactorily performed will be performed only when approved in advance and authorized by County.

3.3 County will pay Contractor based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Contractor shall submit to County staff person designated by the County Engineer, one (1) electronic (pdf) copy of the invoice showing the amounts due for services performed in a form acceptable to County. County 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. County shall pay each such approved invoice within thirty (30) calendar days. County reserves the right to withhold payment pending verification of satisfactory work performed.

### **Section 4. Limit of Appropriation**

4.1 Contractor clearly understands and agrees, such understanding and agreement being of the absolute essence of this Agreement, that County shall have available the total maximum sum of Two Hundred Fifty-three Thousand, Three Hundred Twenty-three and 41/100 (\$253,323.41), specifically allocated to fully discharge any and all liabilities County may incur.

4.2 Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of this Agreement, that the total maximum compensation that Contractor may become entitled to and the total maximum sum that County may become liable to pay to Contractor shall not under any conditions, circumstances, or interpretations thereof exceed Two Hundred Fifty-three Thousand, Three Hundred Twenty-three and 41/100 (\$253,323.41).

## **Section 5. Time of Performance**

Time for performance of the Scope of Services under this Agreement shall begin with receipt of the Notice to Proceed and end no later than December 31, 2022. Contractor shall complete the tasks described in the Scope of Services, within this time or within such additional time as may be extended by the County.

## **Section 6. Modifications and Waivers**

6.1 The parties may not amend or waive this Agreement, except by a written agreement executed by both parties.

6.2 No failure or delay in exercising any right or remedy or requiring the satisfaction of any condition under this Agreement, and no course of dealing between the parties, operates as a waiver or estoppel of any right, remedy, or condition.

6.3 The rights and remedies of the parties set forth in this Agreement are not exclusive of, but are cumulative to, any rights or remedies now or subsequently existing at law, in equity, or by statute.

## **Section 7. Termination**

7.1 Termination for Convenience – County may terminate this Agreement at any time upon forty-eight (48) hours written notice.

### **7.2 Termination for Default**

7.2.1 County may terminate the whole or any part of this Agreement for cause in the following circumstances:

7.2.1.1 If Contractor fails to perform services within the time specified in the Scope of Services or any extension thereof granted by the County in writing;

7.2.1.2 If Contractor materially breaches any of the covenants or terms and conditions set forth in this Agreement or fails to perform any of the other provisions of this Agreement or so fails to make progress as to endanger performance of this Agreement in accordance with its terms, and in any of these circumstances does not cure such breach or failure to County's reasonable satisfaction within a period of ten (10) calendar days after receipt of notice from County specifying such breach or failure.

7.2.2 If, after termination, it is determined for any reason whatsoever that Contractor was not in default, or that the default was excusable, the rights and obligations of the parties shall be the same as if the termination had been issued for the convenience of the County in accordance with Section 7.1 above.

7.3 Upon termination of this Agreement, County shall compensate Contractor in accordance with Section 3, above, for those services which were provided under this Agreement prior to its termination and which have not been previously invoiced to County.

Contractor's final invoice for said services will be presented to and paid by County in the same manner set forth in Section 3 above.

7.4 If County terminates this Agreement as provided in this Section, no fees of any type, other than fees due and payable at the Termination Date, shall thereafter be paid to Contractor.

#### **Section 8. Ownership and Reuse of Documents**

All documents, data, reports, research, graphic presentation materials, etc., developed by Contractor as a part of its work under this Agreement, shall become the property of County upon completion of this Agreement, or in the event of termination or cancellation thereof, at the time of payment under Section 3 for work performed. Contractor shall promptly furnish all such data and material to County on request.

#### **Section 9. Inspection of Books and Records**

Contractor will permit County, or any duly authorized agent of County, to inspect and examine the books and records of Contractor for the purpose of verifying the amount of work performed under the Scope of Services. County's right to inspect survives the termination of this Agreement for a period of four years.

#### **Section 10. Insurance**

10.1 Prior to commencement of the Services, Contractor shall furnish County 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 County. Contractor shall provide certified copies of insurance endorsements and/or policies if requested by County. Contractor 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. Contractor shall obtain such insurance written on an Occurrence form (or a Claims Made form for Professional Liability insurance) 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:

10.1.1 Workers' Compensation insurance. Substitutes to genuine Workers' Compensation Insurance will not be allowed. 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.

10.1.2 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.

10.1.3 Business Automobile Liability insurance with a combined Bodily Injury/Property Damage limit of not less than \$1,000,000 each accident. The policy shall cover liability arising from the operation of licensed vehicles by policyholder.

10.1.4 Professional Liability insurance may be made on a Claims Made form with limits not less than \$1,000,000.

10.2 County and the members of Commissioners Court shall be named as additional insured to all required coverage except for Workers' Compensation and Professional Liability. All Liability policies including Workers' Compensation written on behalf of Contractor shall contain a waiver of subrogation in favor of County and members of Commissioners Court.

10.3 If required coverage is written on a claims-made basis, Contractor 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 that work under the Agreement is completed.

#### **Section 11. Indemnity**

**CONTRACTOR SHALL INDEMNIFY AND HOLD HARMLESS COUNTY AGAINST LOSSES, LIABILITIES, CLAIMS, AND CAUSES OF ACTION, INCLUDING THE REIMBURSEMENT OF COUNTY'S REASONABLE ATTORNEYS FEES IN PROPORTION TO CONTRACTOR'S LIABILITY, ARISING FROM ACTIVITIES OF CONTRACTOR, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, INTENTIONAL TORT, ERROR, OR OMISSION OF CONTRACTOR OR ANY OF CONTRACTOR'S AGENTS, SERVANTS OR EMPLOYEES.**

#### **Section 12. Confidential and Proprietary Information**

12.1 Contractor 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 County. Any and all information of any form obtained by Contractor or its employees or agents from County in the performance of this Agreement shall be deemed to be confidential information of County ("Confidential Information"). Any reports or other documents or items (including software) that result from the use of the Confidential Information by Contractor 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 Contractor) publicly known or is contained in a publicly available document; (b) is rightfully in Contractor'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 Contractor who can be shown to have had no access to the Confidential Information.

12.2 Contractor agrees to hold Confidential Information in strict confidence, using at least the same degree of care that Contractor 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 County hereunder, and to advise each of its employees and agents of their obligations to keep Confidential Information confidential. Contractor shall use its best efforts to assist County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Contractor shall advise County immediately in the event Contractor 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 Contractor will at its expense cooperate with County in seeking injunctive or other equitable relief in the name of County or Contractor against any such person. Contractor agrees that, except as directed by County, Contractor 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 County's request, Contractor will promptly turn over to County all documents, papers, and other matter in Contractor's possession which embody Confidential Information.

12.3 Contractor 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 County that is inadequately compensable in damages. Accordingly, County 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. Contractor acknowledges and agrees that the covenants contained herein are necessary for the protection of the legitimate business interest of County and are reasonable in scope and content.

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

12.5 Contractor expressly acknowledges that County is subject to the Texas Public Information Act, TEX. GOV'T CODE ANN. §§ 552.001 *et seq.*, as amended, and notwithstanding any provision in the Agreement to the contrary, County will make any information related to the Agreement, or otherwise, available to third parties in accordance with the Texas Public Information Act. Any proprietary or confidential information marked as such provided to County by Consultant shall not be disclosed to any third party, except as directed by the Texas Attorney General in response to a request for such under the Texas Public Information Act, which provides for notice to the owner of such marked information and the opportunity for the owner of such information to notify the Attorney General of the reasons why such information should not be disclosed.

### **Section 13. Independent Contractor**

13.1 In the performance of work or services hereunder, Contractor 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 contractor or, where permitted, of its subcontractors.

13.2 Contractor 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 County and shall not be entitled to any of the privileges or benefits of County employment.

### **Section 14. Notices**

14.1 Each party giving any notice or making any request, demand, or other communication (each, a "Notice") pursuant to this Agreement shall do so in writing and shall use one of the following methods of delivery, each of which, for purposes of this Agreement, is a writing: personal delivery, registered or certified mail (in each case, return receipt requested and postage prepaid), or nationally recognized overnight courier (with all fees prepaid).

14.2 Each party giving a Notice shall address the Notice to the receiving party at the address listed below or to another address designated by a party in a Notice pursuant to this Section:

|                 |                                                                                                                                                         |
|-----------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| County:         | Fort Bend County Engineering Department<br>Attn: County Engineer<br>301 Jackson Street<br>Richmond, Texas 77469                                         |
| With a copy to: | Fort Bend County<br>Attn: County Judge<br>401 Jackson Street, 1 <sup>st</sup> Floor<br>Richmond, Texas 77469                                            |
| Contractor:     | SES Horizon Consulting Engineers, Inc.<br>Attn: Epifanio E. Salazar, Jr., P.E., Principal<br>10101 Southwest Freeway, Suite 400<br>Houston, Texas 77074 |

14.3 A Notice is effective only if the party giving or making the Notice has complied with subsections 14.1 and 14.2 and if the addressee has received the Notice. A Notice is deemed received as follows:

14.3.1 If the Notice is delivered in person, or sent by registered or certified mail or a nationally recognized overnight courier, upon receipt as indicated by the date on the signed receipt.

14.3.2 If the addressee rejects or otherwise refuses to accept the Notice, or if the Notice cannot be delivered because of a change in address for which no Notice was given, then upon the rejection, refusal, or inability to deliver.

**Section 15. Compliance with Laws**

Contractor shall comply with all federal, state, and local laws, statutes, ordinances, rules and 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.

When required by County, Contractor shall furnish County with certification of compliance with said laws, statutes, ordinances, rules, regulations, orders, and decrees above specified.

**Section 16. Standard of Care**

Contractor represents shall perform the Services to be provided under this Agreement with the professional skill and care ordinarily provided by competent engineers practicing under the same or similar circumstances and professional license. Further, Contractor shall perform the Services as expeditiously as is prudent considering the ordinary professional skill and care of a competent engineer.

**Section 17. Assignment**

17.1 Neither party may assign any of its rights under this Agreement, except with the prior written consent of the other party. That party shall not unreasonably withhold its consent. All assignments of rights are prohibited under this subsection, whether they are voluntarily or involuntarily, by merger, consolidation, dissolution, operation of law, or any other manner.

17.2 Neither party may delegate any performance under this Agreement.

17.3 Any purported assignment of rights or delegation of performance in violation of this Section is void.

**Section 18. Applicable Law**

The laws of the State of Texas govern all disputes arising out of or relating to this Agreement. The parties hereto acknowledge that venue is proper in Fort Bend County, Texas, for all legal actions or proceedings arising out of or relating to this Agreement and waive the right to sue or be sued elsewhere. Nothing in the Agreement shall be construed to waive the County's sovereign immunity.



**Section 19. Successors and Assigns**

County and Contractor bind themselves and their successors, executors, administrators and assigns to the other party of this Agreement and to the successors, executors, administrators and assigns of the other party, in respect to all covenants of this Agreement.

**Section 20. Third Party Beneficiaries**

This Agreement does not confer any enforceable rights or remedies upon any person other than the parties.

**Section 21. Severability**

If any provision of this Agreement is determined to be invalid, illegal, or unenforceable, the remaining provisions remain in full force, if the essential terms and conditions of this Agreement for each party remain valid, binding, and enforceable.

**Section 22. Publicity**

Contact with citizens of Fort Bend County, media outlets, or governmental agencies shall be the sole responsibility of County. Under no circumstances whatsoever, shall Contractor release any material or information developed or received in the performance of the Services hereunder without the express written permission of County, except where required to do so by law.

**Section 23. Captions**

The section captions used in this Agreement are for convenience of reference only and do not affect the interpretation or construction of this Agreement.

**Section 24. Conflict**

In the event there is a conflict between this Agreement and the attached exhibits, this Agreement controls.

**Section 25. Certain State Law Requirements for Contracts**

25.1 Agreement to Not Boycott Israel Chapter 2270 Texas Government Code: By signature below, Contractor verifies Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

25.2 Texas Government Code Section 2251.152 Acknowledgment: By signature below, Contractor represents pursuant to Section 2252.152 of the Texas Government Code, that Contractor is not listed on the website of the Comptroller of the State of Texas concerning the listing of companies that are identified under Section 806.051, Section 807.051 or Section 2253.153.

IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

FORT BEND COUNTY

SES HORIZON CONSULTING ENGINEERS, INC.

\_\_\_\_\_  
Robert E. Hebert, County Judge

E.E. Salazar, Jr., P.E.  
Epifanio E. Salazar, Jr., P.E., Principal

\_\_\_\_\_  
Date

06-14-2018  
Date

ATTEST:

\_\_\_\_\_  
Laura Richard, County Clerk

APPROVED:

Richard W. Stolleis  
Richard W. Stolleis, P.E., County Engineer

APPROVED AS TO LEGAL FORM:

\_\_\_\_\_  
LaNetra S. Lary, Assistant County Attorney

#### AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$ \_\_\_\_\_ to accomplish and pay the obligation of Fort Bend County under this contract.

\_\_\_\_\_  
Robert Ed Sturdivant, County Auditor

I:\LANETRA\Agreements\2018\Engineering\Prof Engineering Services Agrmt.Mason Road (6.4.18).docx. (LSL)

# EXHIBIT A



May 16, 2018

Fort Bend County Engineering Department  
C/O Mr. Robert W. Barnett, P.E.  
LJA Engineering  
2929 Briarpark Drive, Suite 600  
Houston, Texas 77042

Reference Project:  
2017 Fort Bend County (FBC) Mobility Program  
Mason Road  
From: North Limit Of Fieldstone Subdivision To Beechnut Street  
Fort Bend Project No. 4-05

Dear Mr. Barnett:

SES Horizon Consulting Engineers, Inc. (SES) respectfully submits this fee proposal for the above referenced project to include the professional engineering, geotechnical engineering and topographic surveying services for the preparation of the subject project construction documents. The project scope includes a new boulevard type roadway construction (100 foot right of way to include two – two lane travel ways, left turn bays and a closed storm sewer system) on Mason Road between the North Limit Of Fieldstone Subdivision To Beechnut Street. The approximate length of the project is 2000 linear feet with an estimated construction cost of \$2,000,000.00 as provided by Fort Bend County.

The project will be prepared in accordance with the following documents provided by the Program Manager:

Attachment A – 2017 Mobility Bond Program Summary Of Design Process  
Attachment B – Mobility Design Standards

The proposal assumes that any changes to the design concepts will be provided during the Preliminary Engineering Phase (30% Submittal). Changes to the design concepts requested after the Preliminary Engineering Phase may result in additional services. An estimate of additional services will be provided upon request.

**Compensation:**

SES proposes to perform the services described in Attachments A and B for the fees indicated below.

**Reference Project:**  
**2017 Fort Bend County Mobility Program**  
**Mason Road**  
**From: North Limit Of Fieldstone Subdivision To Beechnut Street**  
**Fort Bend Project No. 4-05**  
**May 16, 2018**  
**Page 2**  
**Basic Services**

Geotechnical Engineering Services \$17,781.00

**Preliminary Engineering Phase (PER):**

SES Preliminary Design \$55,465.81

Topographic Survey \$18,852.15

Subtotal PER Phase \$74,317.96

**Final Plans Phase:**

Preparation Of PS&E \$130,132.00

**Subtotal Basic Services \$222,230.96**

**Bid Phase And Construction Phase Services \$25,005.00**

**Additional Services:**

Right Of Way Parcel Plans (1 Parcel) \$4,057.45

Right Of Way Monumentation \$2,030.00

Total Additional Services \$6,087.45

**Total Fee Proposal \$253,323.41**

**Exclusions:**

1. Environmental services, including but not limited to, preliminary wetlands investigations and Phase I Environmental Site Assessment
2. Fault Studies
3. Traffic Impact Study or collection of Traffic Count Data
4. Traffic Signal Design.
5. Subsurface utility exploration to determine exact locations and depths. Utility coordination is included in our fee proposal and utility locations will be determined and be based on 811 call, record drawings, and communication with utility companies.
6. Utility company signatures on completed drawings.
7. Construction Staking.
8. Material testing during construction.
9. Construction inspection services.
10. Construction management services, including processing of pay applications, change orders, etc..

**Reference Project:**

**2017 Fort Bend County Mobility Program**

**Mason Road**

**From: North Limit Of Fieldstone Subdivision To Beechnut Street**

**Fort Bend Project No. 4-05**

**May 16, 2018**


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Please review and advise if you require any additional information and/or clarifications. We look forward to providing this service to **FBC**.

Sincerely,

**SES HORIZON CONSULTING ENGINEERS, INC.**

**TBPE Firm Registration Number 3922**

A handwritten signature in black ink, reading "Epi E. Salazar Jr. P.E." in a cursive style.

Epifanio (Epi) E. Salazar Jr., P.E., Principal

**Fort Bend County 2017 Mobility Bond Program Fee Estimate Worksheet**

Project : Mason Road From North Limit Of Fieldstone Subdivision To Beechnut Street

| TASK DESCRIPTION                                                              | PRINCIPAL   | PROJECT COORDINATOR | STRUCTURAL ENGINEER | SENIOR ENGINEER | ENGINEER     | ENGINEERING TECHNICIAN | TECHNICIAN | ADMINISTRATION | TOTAL HOURS | Task Total           |
|-------------------------------------------------------------------------------|-------------|---------------------|---------------------|-----------------|--------------|------------------------|------------|----------------|-------------|----------------------|
| <b>1. Preliminary Design (LS)</b>                                             |             |                     |                     |                 |              |                        |            |                |             | <b>\$ 98,186.41</b>  |
| Establish a Typical Cross Section                                             |             |                     |                     |                 | 8            | 8                      |            |                | 16          | \$ 1,680.00          |
| Determine ROW Acquisition Needs                                               |             |                     |                     |                 | 16           | 16                     |            |                | 32          | \$ 3,360.00          |
| Determine Potential Conflicts with existing facilities & utilities            |             |                     |                     |                 | 16           | 16                     |            |                | 16          | \$ 2,080.00          |
| Identify Critical Path Items                                                  |             |                     |                     |                 | 24           |                        |            |                | 24          | \$ 3,120.00          |
| Identify Problem Areas and Potential Resolutions                              |             |                     |                     |                 | 16           |                        |            |                | 16          | \$ 2,080.00          |
| Site Visit                                                                    |             |                     |                     |                 | 16           | 8                      |            |                | 24          | \$ 2,720.00          |
| Prepare a Construction Cost Estimate                                          |             |                     |                     |                 | 24           |                        |            |                | 24          | \$ 3,120.00          |
| Prepare 30% Plans (Roadway, Drainage And Water Line)                          |             |                     |                     |                 | 80           | 80                     |            |                | 160         | \$ 16,800.00         |
| Utility Coordination                                                          |             |                     |                     |                 | 12           | 4                      |            |                | 16          | \$ 1,680.00          |
| Topographic Survey                                                            |             |                     |                     |                 |              |                        |            |                | 20          | \$ 2,200.00          |
| Control & Monumentation - Prepare Survey Control Map                          |             |                     |                     |                 | 12           | 8                      |            |                | 20          | \$ 2,200.00          |
| Right-of-way Parcel Exhibits (\$ per parcel)                                  |             |                     |                     |                 |              |                        |            |                | 0           | \$ 6,087.45          |
| Geotechnical Investigation                                                    |             |                     |                     |                 |              |                        |            |                | 0           | \$ 17,781.00         |
| Survey And Geotechnical Coordination                                          |             |                     |                     |                 |              |                        |            |                | 0           | \$ 4,729.81          |
| Project Management & Meetings                                                 | 24          |                     |                     |                 |              |                        |            |                | 24          | \$ 4,848.00          |
| Project Management & Meetings With LID, MUD And Adjacent FBC Mobility Project | 24          |                     |                     |                 |              |                        |            |                | 24          | \$ 4,848.00          |
| Preliminary Phase Expenses                                                    |             |                     |                     |                 |              |                        |            |                |             | \$ 2,000.00          |
|                                                                               |             |                     |                     |                 |              |                        |            |                |             | \$ -                 |
| <b>2. Final Design (LS)</b>                                                   |             |                     |                     |                 |              |                        |            |                |             | <b>\$ 130,132.00</b> |
| Cover Sheet & Index                                                           |             |                     |                     |                 | 4            | 4                      |            |                | 8           | \$ 840.00            |
| General Notes                                                                 |             |                     |                     |                 | 8            | 8                      |            |                | 16          | \$ 1,680.00          |
| Quantities (Summary Sheets - Optional)                                        |             |                     |                     |                 |              |                        |            |                | 0           | \$ -                 |
| Typical Sections (70% Final)                                                  |             |                     |                     |                 | 12           | 16                     |            |                | 28          | \$ 2,840.00          |
| Project Layout                                                                |             |                     |                     |                 | 8            | 8                      |            |                | 16          | \$ 1,680.00          |
| Drainage Area Maps                                                            |             |                     |                     |                 | 40           | 40                     |            |                | 80          | \$ 8,400.00          |
| Drainage Calculations                                                         |             |                     |                     |                 | 120          | 40                     |            |                | 160         | \$ 18,800.00         |
| Plan and Profile Sheets (Roadway And Drainage)                                |             |                     |                     |                 | 120          | 120                    |            |                | 240         | \$ 25,200.00         |
| Plan and Profile Sheets (Water Line)                                          |             |                     |                     |                 | 0            | 0                      |            |                | 0           | \$ -                 |
| Intersection Layouts or Cross Street Details                                  |             |                     |                     |                 | 0            | 0                      |            |                | 0           | \$ -                 |
| TCP Advance Warning Signs                                                     |             |                     |                     |                 | 0            | 0                      |            |                | 0           | \$ -                 |
| TCP Overview & Narrative                                                      |             |                     |                     |                 | 0            | 0                      |            |                | 0           | \$ -                 |
| Delour Plans (with County Approval only)                                      |             |                     |                     |                 | 0            | 8                      |            |                | 8           | \$ 840.00            |
| Traffic Control Plan                                                          |             |                     |                     |                 | 4            | 4                      |            |                | 8           | \$ 840.00            |
| Temporary Traffic Signal Plans                                                |             |                     |                     |                 |              |                        |            |                | 0           | \$ -                 |
| SWPPP Sheets                                                                  |             |                     |                     |                 | 16           | 16                     |            |                | 32          | \$ 3,360.00          |
| Culvert/Bridge Layouts                                                        |             |                     |                     |                 | 24           | 24                     |            |                | 48          | \$ 5,040.00          |
| Culvert/Bridge Detail Sheets                                                  |             |                     |                     |                 | 12           | 12                     |            |                | 24          | \$ 2,520.00          |
| Design Calculations                                                           |             |                     |                     |                 |              |                        |            |                | 0           | \$ -                 |
| Signing & Pavement Markings                                                   |             |                     |                     |                 | 40           | 40                     |            |                | 80          | \$ 8,400.00          |
| Traffic Signal & Warrant Study                                                |             |                     |                     |                 |              |                        |            |                | 0           | \$ -                 |
| Detail Sheets                                                                 |             |                     |                     |                 |              |                        |            |                | 0           | \$ -                 |
| Standard Details                                                              |             |                     |                     |                 | 16           | 16                     |            |                | 32          | \$ 3,360.00          |
| Technical Specifications                                                      |             |                     |                     |                 | 24           |                        |            |                | 24          | \$ 3,120.00          |
| Bid Form                                                                      |             |                     |                     |                 | 16           |                        |            |                | 16          | \$ 2,080.00          |
| Construction Cost Estimate                                                    |             |                     |                     |                 | 40           | 8                      |            |                | 48          | \$ 5,840.00          |
| Utility & Agency Approvals & Signatures                                       |             |                     |                     |                 | 16           | 8                      |            |                | 24          | \$ 2,720.00          |
| Cross Sections with earthwork calculations                                    |             |                     |                     |                 | 40           | 40                     |            |                | 80          | \$ 8,400.00          |
| Responses to Comments                                                         |             |                     |                     |                 | 24           | 24                     |            |                | 48          | \$ 5,040.00          |
| Project Management & Meetings                                                 | 28          |                     |                     |                 |              |                        |            |                | 28          | \$ 5,656.00          |
| Project Management & Meetings With LID, MUD And Adjacent FBC Mobility Project | 38          |                     |                     |                 |              |                        |            |                | 38          | \$ 7,676.00          |
| Final Design Phase Expenses                                                   |             |                     |                     |                 |              |                        |            |                |             | \$ 6,000.00          |
|                                                                               |             |                     |                     |                 |              |                        |            |                |             | \$ -                 |
| <b>3. Bid &amp; Construction Phase Services (T&amp;M)</b>                     |             |                     |                     |                 |              |                        |            |                |             | <b>\$ 25,005.00</b>  |
| Project Manual & Plans (PDF Format on Compact Disc * 28)                      |             | 8                   |                     |                 | 40           | 0                      |            | 18.5           | 67          | \$ 7,325.00          |
| Attend Pre-Bid Meeting                                                        |             | 4                   |                     |                 | 6            |                        |            |                | 10          | \$ 1,380.00          |
| Answer Bidder Questions & Addendum                                            |             |                     |                     |                 | 12           |                        |            |                | 12          | \$ 1,560.00          |
| Attend Pre-Construction Meeting                                               |             | 4                   |                     |                 | 6            |                        |            |                | 10          | \$ 1,380.00          |
| Review Contractor Submittals                                                  |             |                     |                     |                 | 24           | 0                      |            |                | 24          | \$ 3,120.00          |
| Answering Requests for Information                                            |             |                     |                     |                 | 40           |                        |            |                | 40          | \$ 5,200.00          |
| Substantial Completion Walkthrough                                            |             |                     |                     |                 | 8            | 0                      |            |                | 8           | \$ 1,040.00          |
| Record Drawings                                                               |             |                     |                     |                 | 8            | 12                     |            |                | 20          | \$ 2,000.00          |
| Bid & Construction Phase Expenses                                             |             |                     |                     |                 |              |                        |            |                |             | \$ 2,000.00          |
|                                                                               |             |                     |                     |                 |              |                        |            |                |             | \$ -                 |
| <b>MANHOUR SUBTOTAL</b>                                                       | 114         | 18                  | 0                   | 0               | 962          | 572                    | 0          | 18.5           | 1,673       |                      |
|                                                                               | 7%          | 1%                  | 0%                  | 0%              | 57%          | 34%                    | 0%         | 1%             |             |                      |
| <b>LABOR RATE PER HOUR</b>                                                    | \$202.00    | \$150.00            | \$144.00            | \$135.00        | \$130.00     | \$80.00                | \$59.00    | \$50.00        |             |                      |
| <b>SUBTOTAL LABOR</b>                                                         | \$23,028.00 | \$2,400.00          | \$0.00              | \$0.00          | \$123,790.00 | \$45,760.00            | \$0.00     | \$625.00       |             |                      |
| <b>TOTAL</b>                                                                  |             |                     |                     |                 |              |                        |            |                |             | <b>\$ 253,323.41</b> |

**TranSystems**

2777 Allen Parkway  
Suite 500  
Houston, TX 77019  
Tel 713-807-0600  
TBPLS Firm Reg. No. 100383  
[www.transystems.com](http://www.transystems.com)

May 16, 2018

Mr. Epifanio (Epi) Salazar, Jr., PE  
SES Horizon Consulting Engineers, Inc.  
10101 Southwest Freeway, Suite 400  
Houston, TX 77074

**Re: Proposal for Professional Surveying Services  
Fort Bend County 2017 Mobility Projects – Mason Road (4-05) (the “Project”)**

Dear Mr. Salazar:

TranSystems Corporation dba TranSystems Corporation Consultants (TranSystems) appreciates the opportunity to submit this proposal to perform professional surveying services to SES Horizon Consulting Engineers, Inc. (Client) for the above listed project.

The scope of services and related deliverables is based on the information outlined in the 2017 Mobility Bond Program Summary of Design Process document provided to TranSystems by Client via email on March 22, 2018 and subsequent discussions, the following represents our understanding of the requirements for this project.

**PROJECT LOCATION** (See Exhibit “A”)

Project 4-05 Mason Road from north limit of the Fieldstone subdivision to Beechnut Street.

The survey will include existing Mason Road 300' south of the end of pavement in the Fieldstone subdivision to Beechnut Street. Total 2,250 LF.

**SURVEY DATUM**

Horizontal datum will be referenced to the Texas Coordinate System, South Central Zone (4204), North American Datum of 1983 (NAD83) (2011 adjustment) (Epoch 2010.0000) and based on existing National Geodetic Survey (NGS) monuments;

Vertical datum will be referenced to the North American Vertical Datum of 1988 (NAVD88) (GEOID12A) and based on existing National Geodetic Survey (NGS) monuments;

All survey data will be surface values in US Survey Feet;



## **PRELIMINARY DESIGN**

### **SCOPE OF SERVICES**

- Research county records to obtain current vesting deeds, subdivision plats and easement documents along the proposed Mason Road alignment;
- Research location of existing pipelines crossing proposed alignment;
- Obtain existing LiDAR data from Fort Bend County to verify accuracy and determine overland flow characteristics;
- Contact Texas 811 to identify and locate existing underground utilities within the project limits;
- Secure right of entry to 688 Partners, LP property for survey and geotechnical;
- Establish temporary benchmarks along proposed Mason Road at 1,000' intervals;
- Establish project control points along proposed Mason Road at 1,000' intervals;
- Recover and tie existing right-of-way monumentation and property corners;
- Cross section proposed Mason Road at 100' intervals from right-of-way to right-of-way plus 25' where possible;
- Stake proposed Mason Road centerline and right-of-way for site visits by others;
- Locate and detail existing storm and sanitary sewer and waterline facilities within project limits;
- Locate boreholes and provide horizontal and vertical location;

### **DELIVERABLES**

- Copies of vesting deeds, subdivision plats and easement documents in pdf format;
- Survey Control map with horizontal and vertical data and reference sketches for each control point;
- 2D design file with approximate location of existing right-of-way lines and property lines;
- 2D planimetric design file;
- 3D DTM design file;

## **RIGHT-OF-WAY MAPPING**

### **SCOPE OF SERVICES**

- Perform final analysis of existing right-of-way lines, property lines;
- Determine proposed right-of-way acquisition parcel boundaries;
- Prepare an overall project map showing the existing and proposed right-of-way lines;
- Prepare parcel plat for each right-of-way acquisition parcel;
- Prepare metes and bounds description for each right-of-way acquisition parcel;
- Prepare a kmz file showing existing right-of-way with ownership information, proposed takings with parcel numbers;

### **DELIVERABLES**

- Overall project map showing existing and proposed right-of-way lines, ownership information, existing easements and other matters of record;
- Parcel plat and metes and bounds description of each parcel to be acquired;
- KMZ file showing existing right-of-way with ownership information, proposed takings and parcel numbers;

Design files, right-of-way map and parcel plats will be prepared in AutoCAD Civil 3D;  
Metes and bounds descriptions will be prepared in Microsoft Word 2013;  
KMZ files will be prepared in Google Earth Pro version 7.174.1529;

*Please note that no meetings have been included in this scope of services. Preparation for and attendance at meetings will be billed as Additional Services on a time and materials basis in accordance with the general provisions of this Proposal.*

## COMPENSATION

### PRELIMINARY DESIGN

|                                                                   |                    |
|-------------------------------------------------------------------|--------------------|
| Abstracting Research / Abstract Map                               | \$ 1,560.00        |
| Establish control and control map                                 | \$ 3,500.00        |
| Cross-sections, topographic survey, utility ties                  | \$ 5,530.00        |
| Right-of-way monument, property corner ties                       | \$ 3,880.00        |
| Planimetric (2D), DTM (3D) and existing right-of-way design files | \$ 3,760.00        |
| Expenses (mileage, deed and plat copies)                          | <u>\$ 352.15</u>   |
| <b>Total lump sum fee</b>                                         | <b>\$18,582.15</b> |

### RIGHT-OF-WAY MAPPING (1 Parcel)

|                                                                    |                    |
|--------------------------------------------------------------------|--------------------|
| Final right-of-way map and parcel plat                             | \$ 2,560.00        |
| Metes and bounds description                                       | \$ 680.00          |
| QA/QC right-of-way maps, parcel plat, metes and bounds description | \$ 680.00          |
| Final right-of-way monumentation                                   | \$ 2,030.00        |
| Expenses (mileage, supplies)                                       | <u>\$ 137.45</u>   |
| <b>Total lump sum fee</b>                                          | <b>\$ 6,087.45</b> |

Invoices will be submitted monthly by a date to be determined and will be based on TranSystems' estimate of the total Services completed as of the time of billing.

## ASSUMPTIONS

This proposal and TranSystems' agreement to perform the Services is based upon, and subject to, the following assumptions:

- Client will provide the proposed Mason Road alignment and right-of-way in electronic format prior to work beginning on project;
- Client will provide TranSystems with existing construction drawings/plans of roadways, storm sewer, sanitary sewer and waterlines within the project limits;
- Client will provide TranSystems with existing utility drawings/plans within the project limits;
- Client will provide TranSystems with CAD files of sheet borders for survey control map and parcel plats;
- Client will provide TranSystems with examples of preferred formats of survey control map, parcel plats and metes and bounds descriptions;
- This proposal includes a maximum of one (1) field trip to restake/reflag the proposed centerline and right-of-way lines;

## ADDITIONAL SERVICES

Any special surveying services not required to complete the original scope of service which may be requested by the Client. Payment to TranSystems as compensation for these services will be in addition to the contract amount identified above in the Compensation section. TranSystems will be reimbursed by the Client for these services at a cost to be determined under a separate proposal.



Please do not hesitate to contact me at 713-807-4416 if you have any questions or require additional information regarding this proposal.

Sincerely,  
*TranSystems Corporation dba*  
*TranSystems Corporation Consultants*

A handwritten signature in black ink, appearing to read "Richard R. Dorr". The signature is fluid and cursive, with the first name "Richard" being more prominent than the last name "Dorr".

Richard R. Dorr, RPLS  
Survey Division Leader  
Assistant Vice President

Project 4-05

Mason Road Survey Limits

Office

## EXHIBIT "A"

### Legend

- Project 4-06 Alignment
- Project 4-05 Limits

2.250'

140'

Google earth

© 2013 Google

April 10, 2018  
Proposal No.: 18-090



**Paradigm  
Consultants, Inc.**

9980 W. Sam Houston Pkwy S.  
Suite 500  
Houston, Texas 77099

Main: 713.686.6771  
Dispatch: 713-686-6999

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TBPE Reg. No. F-001478

Mr. Epifanio Salazar, Jr., P.E.  
SES Horizon Consulting Engineers, Inc.  
10101 Southwest Freeway, Suite 400  
Houston, Texas 77074

**Proposal for Geotechnical Engineering Study  
Roadway Segment Mason Road  
Richmond, Texas 77407**

Mr. Salazar:

Paradigm Consultants, Inc., (Paradigm) appreciates the opportunity to submit this draft proposal to perform a geotechnical study for the referenced project. We prepared our proposal based on the 18-0322 FBC Mobility Scope of Work you provided via e-mail on March 22, 2018.

**Scope of Services**

Plans are to construct a 1,800-ft roadway south of Beechnut Road at Mason Road in Richmond, Texas. The roadway will be concrete and similar to S Mason Road at Beechnut Road.

Our scope of services will consist of exploring subsurface soil conditions and developing geotechnical engineering recommendations to assist others in the design and construction of the proposed road and utilities. The following subsections present details of our proposed scope of service.

**Field Exploration**

Based on the information provided, we propose to drill and sample five borings to a depth of 15-ft for the roadway and utilities. The proposed plan of borings is attached for your review. Our geotechnical technician will be present during the field exploration activities to oversee the drilling operations, direct the sampling efforts, and log the borehole in general accordance with applicable ASTM standards. We will coordinate with the surveyors to tie down the borehole locations.

Cohesive soils will be sampled using a 3-in. diameter, thin-walled tube and granular soils will be sampled with a split-barrel sampler while performing a Standard Penetration Test (SPT). Soil sampling will be performed in general accordance with applicable ASTM standards. We will transport portions of the recovered samples to our soil mechanics laboratory for testing.

We will collect samples at 2-ft intervals to 12-ft depth with additional samples taken from 13 ft to 15 ft and at 5-ft intervals, thereafter, to the completion depth of borings. The borehole will be dry-augered to the depth where water is encountered or borehole instability occurs. If water is encountered, the water level will be allowed to stabilize for at least 15 minutes before we resume drilling with wet-rotary methods. We will take depth-to-water measurements within the open boreholes on the day of drilling. The open boreholes then will be filled with soil cuttings from our drilling operations.

#### **Laboratory Testing**

We will perform laboratory tests on selected samples to evaluate the physical and engineering properties of the recovered soils. The testing will include measurement of the undrained shear strength, unconfined compressive strength test, total unit weight, in situ moisture content, and liquid limit and plastic limit testing to determine plasticity characteristics of the cohesive soils. For granular soils, laboratory testing will include determination of fines content and possibly grain size distribution. Laboratory testing will be performed using applicable ASTM methods.

#### **Engineering Analyses and Reporting**

The details of our field and laboratory programs, our findings, and our recommendations will be presented in our geotechnical report. Our geotechnical engineering recommendations will include design and construction recommendations for the proposed roadway and utilities. Construction considerations including subgrade preparation, stabilization, select fill placement, and excavations will also be presented in the report. Based on the field and laboratory data, and our experience, we will provide recommendation to assist in road subgrade preparation, select fill selection and concrete paving thickness.

#### **Fee and schedule**

Our fee to provide the scope of services described in this proposal will be **\$17,781**. Barring any weather delays, we will provide a complete report in about 3 weeks to 4 weeks following drilling.

Variations in the scope of the project may necessitate a change in the scope of services outlined and a change in fees. We will not proceed with a change in the scope of services without your approval.

#### **Assumptions and Conditions**

We assumed the borings are accessible to an ATV drill rig. Access, right-of-entry, and/or other permits will be provided by the client. Professional services (engineering recommendations) required/requested beyond the scope mentioned above will be provided on a time-and-materials basis.

Mr. Epifanio Salazar, Jr., P.E.  
SES Horizon Consulting Engineers, Inc.  
April 10, 2018  
Page 3 of 3

**Proposal Acceptance**

To accept our proposal and authorize our services, please sign the attached *Professional Services Agreement* and send a copy to our office.

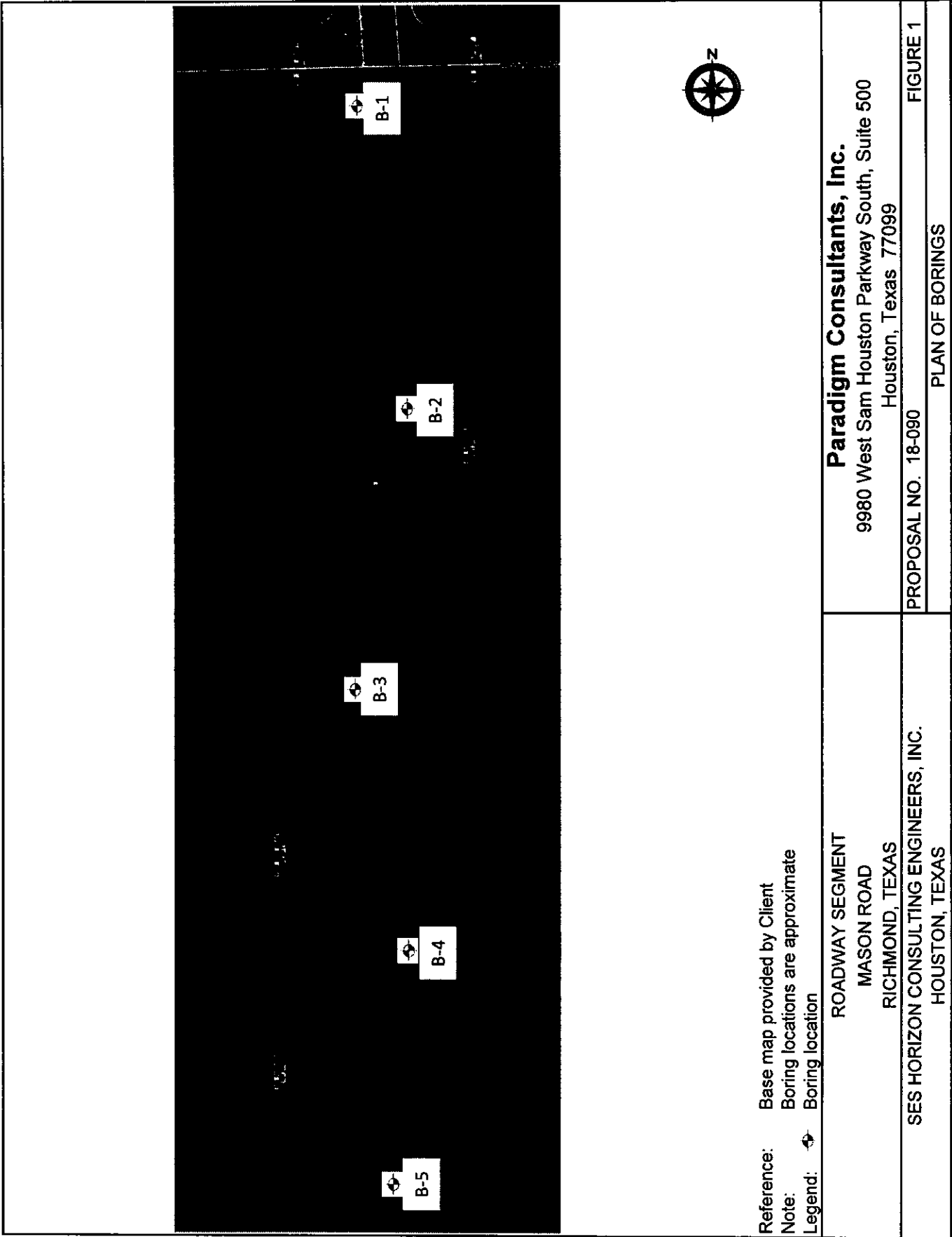
**Closing**

We appreciate having the opportunity to develop this proposal and look forward to working with you on this project. If you have any questions, please contact us at your convenience.

Sincerely,  
**Paradigm Consultants, Inc.**

A handwritten signature in black ink, appearing to read 'Frank Ong', is positioned above the printed name and title.

Frank Ong, P.E.  
Engineering Manager





| Geotechnical Study Budget |                                        |  |              |             |               |                  |
|---------------------------|----------------------------------------|--|--------------|-------------|---------------|------------------|
|                           | Fort Bend County Mason                 |  | Worksheet    |             |               |                  |
|                           | Proposal No. 18-090                    |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |
| <b>Code</b>               | <b>Subcontract Field Charges</b>       |  | <b>Units</b> | <b>Rate</b> |               |                  |
| 11110                     | Mobilization (LS)                      |  | 1            | 349.00      |               | 349.00           |
| 11010                     | Drilling - truck (intermittant 0'-50') |  | 75           | 19.00       |               | 1,425.00         |
| 11080                     | Grouting boreholes                     |  | 75           | 10.00       |               | 750.00           |
|                           | <b>Subtotal Subcontract Field</b>      |  |              |             |               | <b>2,524.00</b>  |
|                           |                                        |  |              |             |               |                  |
|                           | <b>PCI Field Charges</b>               |  | <b>Units</b> | <b>Rate</b> |               |                  |
| 10700                     | Logger (12 hour days)                  |  | 12           | 65.00       |               | 780.00           |
| 15000                     | Vehicle                                |  | 12           | 10.00       |               | 120.00           |
|                           | <b>Subtotal PCI Field</b>              |  |              |             |               | <b>900.00</b>    |
|                           |                                        |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |
|                           | <b>Laboratory Services</b>             |  | <b>Units</b> | <b>Rate</b> |               |                  |
| 90900                     | Unconfined compression                 |  | 5            | 45.00       |               | 225.00           |
| 90100                     | Liquid and plastic limits              |  | 10           | 62.00       |               | 620.00           |
| 90200                     | Natural moisture contents              |  | 30           | 9.00        |               | 270.00           |
| 90600                     | Percent finer than no. 200             |  | 10           | 48.00       |               | 480.00           |
| 91100                     | Unconsolidated undrained               |  | 5            | 63.00       |               | 315.00           |
|                           | <b>Subtotal Laboratory Services</b>    |  |              |             |               | <b>1,910.00</b>  |
|                           |                                        |  |              |             |               |                  |
|                           | <b>PCI Engineering Fees</b>            |  | <b>Units</b> | <b>Rate</b> | <b>Staff</b>  |                  |
| 10400                     | Lab assignments                        |  | 2            | 101.00      | Grad Engineer | 202.00           |
| 10400                     | Logs                                   |  | 10           | 101.00      | Grad Engineer | 1,010.00         |
| 10400                     | Engineering                            |  | 55           | 101.00      | Grad Engineer | 5,555.00         |
| 10200                     | Review                                 |  | 20           | 183.00      | Seni Engineer | 3,660.00         |
| 10400                     | Finalize report                        |  | 20           | 101.00      | Grad Engineer | 2,020.00         |
|                           | <b>Subtotal Engineering Fees</b>       |  |              |             |               | <b>12,447.00</b> |
|                           |                                        |  |              |             |               |                  |
|                           | <b>Total Fee</b>                       |  |              |             |               | <b>17,781.00</b> |
|                           |                                        |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |
|                           |                                        |  |              |             |               |                  |