STATE OF TEXAS	§
	§
COUNTY OF FORT BEND	§

AGREEMENT FOR CONSTRUCTION MATERIALS TESTING 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 Terracon Consultants, Inc., (hereinafter "Consultant"), a company authorized to conduct business in the State of Texas.

<u>WITNESSETH</u>

WHEREAS, County desires that Consultant provide construction materials testing services for Greenbusch Road Paving and Drainage Improvements – Phase II under Mobility Bond Project No. 13312 (hereinafter "Services") pursuant to SOQ 14-025; and

WHEREAS, County has determined Consultant is the most highly qualified provider of the desired Services on the basis of demonstrated competence and qualifications, and County and Consultant 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, Consultant 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. <u>Scope of Services</u>

Consultant shall render the construction materials testing services as described in Consultant's proposal dated September 29, 2021, attached hereto as Exhibit A, and incorporated herein for all purposes.

Section 2. Personnel

2.1 Consultant 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 Consultant 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 Consultant shall have such knowledge and experience as will enable them to perform the duties assigned to them. Any employee of Consultant 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 Consultant'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-six thousand eighty dollars and no/100 (\$256,080.00) 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 Consultant 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 Consultant based on the following procedures: Upon completion of the tasks identified in the Scope of Services, Consultant 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 Consultant 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-six thousand eighty dollars and no/100 (\$256,080.00) specifically allocated to fully discharge any and all liabilities County may incur.

4.2 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 County may become liable to pay to Consultant shall not under any conditions, circumstances, or interpretations thereof exceed two hundred fifty-six thousand eighty dollars and no/100 (\$256,080.00).

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, 2025. Consultant 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 Consultant 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 Consultant 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 Consultant 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 Consultant 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. Consultant'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 Consultant.

Section 8. 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 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. Consultant shall promptly furnish all such data and material to County on request. If the County modifies and/or uses the documents for any reason other than their intended use, without Consultant's authorization, the Consultant shall be released from any liability as a direct result of such action.

Section 9. Inspection of Books and Records

Consultant will permit County, or any duly authorized agent of County, 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. 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, Consultant 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. Consultant shall provide certified copies of insurance endorsements and/or policies if requested by County. 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 (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.

10.1.2 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.

10.1.3 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.

10.1.4 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.

10.1.5 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 Consultant, excluding

Professional Liability, 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, 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 that work under the Agreement is completed.

Section 11. Indemnity

CONSULTANT 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 CONSULTANT'S LIABILITY, ARISING FROM ACTIVITIES OF CONSULTANT, ITS AGENTS, SERVANTS OR EMPLOYEES, PERFORMED UNDER THIS AGREEMENT THAT RESULT FROM THE NEGLIGENT ACT, INTENTIONAL TORT, ERROR, OR OMISSION OF CONSULTANT OR ANY OF CONSULTANT'S AGENTS, SERVANTS OR EMPLOYEES.

Section 12. Confidential and Proprietary Information

12.1 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 County. Any and all information of any form obtained by Consultant 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 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.

12.2 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 County hereunder, unless disclosure is required by law or court order, 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 County in identifying and preventing any unauthorized use or disclosure of any Confidential Information. Without limitation of the foregoing, Consultant shall advise County 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 County in seeking injunctive or other equitable relief in the name of County or Consultant against any such person. Consultant agrees that, except as directed by County, 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 County's request, Consultant will promptly turn over to County all documents, papers, and other matter in Consultant's possession which embody Confidential Information; provided however, that Consultant may retain one (1) copy of all work produced which incorporates Confidential Information for internal record-keeping purposes, subject to the terms of this Agreement.

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

12.5 Consultant 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 Consultant

13.1 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 contractor or, where permitted, of its subcontractors.

13.2 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 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 Attn: County Engineer 301 Jackson Street Richmond, Texas 77469
With a copy to:	Fort Bend County Attn: County Judge 401 Jackson Street, 1 st Floor Richmond, Texas 77469
Consultant:	Terracon Consultants, Inc. 11555 Clay Road, Suite 100 Houston, Texas 77043

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

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

Section 16. Standard of Care

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

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 Consultant 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 Consultant 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

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:

25.1 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.

25.2 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 section 808.001 of the Texas Government Code.

25.3 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 section 809.001 of the Texas Government Code.

25.4 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 section 2274.001(3) of the Texas Government Code. "Firearm entity" and "firearm trade association" have the meanings provided in section 2274.001(6) and (7) of the Texas Government Code.

Section 26. Human Trafficking

BY ACCEPTANCE OF AGREEMENT, CONSULTANT ACKNOWLEDGES THAT THE COUNTY IS OPPOSED TO HUMAN TRAFFICKING AND THAT NO COUNTY FUNDS WILL BE USED IN SUPPORT OF SERVICES OR ACTIVITIES THAT VIOLATE HUMAN TRAFFICKING LAWS.

Section 27. Supplemental Terms and Conditions

27.1 Warranty. EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONTRACTOR MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONTRACTOR'S SERVICES.

27.2 Site Access and Safety. County shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services. Contractor will be responsible for the supervision of health and safety precautions for any third parties, include County and/or County's contractors, subcontractors or other parties present at the site.

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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	TERRACON CONSULTANTS, INC
KP George, County Judge	Authorized Agent – Signature
	Chad C. Gordon, P.E.
Date	Authorized Agent – Printed Name
ATTEST:	Principal Title
Laura Richard, County Clerk	January 28, 2022 Date
	Date
APPROVED:	

J. Stacy Slawinski, P.E., County Engineer

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

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EXHIBIT A



September 29, 2021

Fort Bend County Engineering Department Attn: Ms. Elise K. Dillow, P.E. 301 Jackson Street, Suite 719 Richmond, Texas 77469

Phone: 281.920.0487 Email: edillow@spi-eng.com

Subject: Proposal for Construction Materials Testing Services Greenbusch Road Paving & Drainage Improvements – Phase II Ensley Hollow Drive, Katy, 77494 Terracon Proposal No. P92211495

Dear Ms. Dillow:

Terracon Consultants, Inc. (Terracon) is pleased to submit this proposal to provide construction materials engineering and testing services for the above referenced project. We understand that we have been selected solely based on our professional qualifications. In this proposal we present our understanding of the scope of the project, our proposed services, and our budget estimate.

PROJECT INFORMATION

The site is located along Greenbusch Road between Gaston Road and Westheimer Parkway in Fort Bend County, Texas. The project involves the construction of an approximately 6,500 linear foot segment of a new 4-lane road to consist of 8 inches of reinforced concrete overlying 8 inches of chemically treated subgrade with curb and gutter. Improvements will also consist of approximately 6,200 linear feet of storm sewer with a maximum embedment depth of 15 feet to be installed using the open cut construction method. A new bridge at the existing Willowbrook drainage channel to accommodate the roadway widening. The new bridge is planned to be supported on straight-shaft drilled piers. We understand that the precast prestressed structural members will be fabricated and tested by others. We also understand that asphalt concrete will be part of this project.

Terracon was provided with the following construction documents for preparation of this proposal:

 Construction plans for Precinct 3 – Mobility Projects Greenbusch Road Paving & Drainage Improvements form Ensley Hollow Drive to 300 FT North of Westheimer Parkway Project No.13312, dated December 21, 2020, prepared by Aguirre & Fields.

Terracon Consultants, Inc. 11555 Clay Road, Suite 100 Houston, Texas 77043 P [713] 690 8989 F [713] 690 8787 terracon.com

Environmental 🗨 Facilities 🗨 Geotechnical 🗨 Mater



 Geotechnical Report No.92165335 dated August 17, 2016, prepared by Terracon Consultants Inc.

1.0 SCOPE OF SERVICES

1.1 Earthwork

- Sample trench backfill and treated pavement subgrade. Prepare and test the samples for Atterberg Limits (ASTM D4318), moisture-density relationship (ASTM D698, ASTM D558 and ASTM D1557).
- Samples typically require 2 to 3 working days for processing and testing in accordance with ASTM Standards.
- Sample cement-sand backfill for utility trenches, mold specimens, and perform compressive strength tests in the laboratory (ASTM D1633).
- Evaluate the subgrade soil for proposed chemically treated pavement subgrade.
- Observe the chemical treatment process for the pavement subgrade.
- Perform field gradation tests of treated subgrade.
- Measure the depth of treated subgrade using phenolphthalein.
- Observe proof-rolling operations of the pavement subgrades; and perform density tests of the pavement subgrade, trench backfill when proper trench safety is provided by the contractor, and treated pavement subgrade using the nuclear method (ASTM D6938) to determine the moisture content and percent compaction of the soil materials.

1.2 Foundations

- Observe the installation of the drilled pier foundations. For each pier observed, information regarding shaft depth and auger diameter will be documented.
- Obtain one sample of the drilling slurry for each pier drilled. The sample will be tested for specific gravity, viscosity, and sand content.
- Perform compressive tests of concrete test cylinders cast in the field (ASTM C1231 or C617, C39).



1.3 Cast-in-Place Concrete

- Sample and test the fresh concrete for each mix. Perform tests for slump, air content, and concrete temperature only; and cast test specimens (ASTM C172, C31, C143, C173 or C231, and C1064). <u>Terracon understands that the contractor will be responsible for maintaining the initial curing temperature of the concrete test specimens. Terracon will record the initial curing temperatures only when conditioned curing boxes are provided by the contractor.</u>
- Concrete will be sampled at a frequency of 1 set of test cylinders every 50 cubic yards for structural concrete, 1 set of test cylinders every 100 cubic yards for slabs, and 1 set of test cylinders every 150 cubic yards for pavement concrete. <u>Terracon requests</u> that a copy of the approved mix design(s) be provided to us prior to placement of the concrete.
- Perform compressive strength tests of concrete test cylinders cast in the field (ASTM C1231, C39). Five 4" x 8" concrete cylinders will be prepared for structural concrete having nominal size aggregate of 1¼" or less. Four 6" x 12" concrete cylinders per set will be prepared for concrete having a nominal size aggregate of greater than 1¼". When 6" x 12" cylinders are prepared, two cylinders will be tested at 7 and 28 days. When 4" x 8" cylinders are prepared, two cylinders will be tested at 7 days and three cylinders will be tested at 28 days.
- Observe reinforcing steel prior to concrete placement. We will observe the rebar size, spacing and configuration. Terracon recommends we be scheduled a minimum of 24 hours prior to each concrete placement.
- Sample the fresh grout during construction and cast grout cylinders (ASTM C1019) for compressive strength tests.
- Within 48 hours of concrete placement, travel to project site to collect and transport hardened concrete test cylinders to Terracon's Houston laboratory for processing, curing and testing.
- Obtain cores from the pavements and perform 9-point thickness measurements and compressive strengths (ASTM C42, C174).



1.4 Asphalt Pavement

- Sample asphalt materials during placement, prepare, and test the samples for asphalt content, gradation, bulk specific gravity of lab molded specimens, theoretical maximum specific gravity, and Hveem stability and density. Unless specified otherwise, one sample will be obtained for each day asphalt is placed on the project.
- Perform in-situ nuclear density tests to assist in determining an asphalt rolling pattern, when requested by the contractor.
- Perform in-situ nuclear density tests to determine the relative percent compaction of the asphalt at the frequency specified.
- Obtain cores from the pavements and perform thickness measurements and bulk density.

1.5 **Project Management / Administration**

A project manager will be assigned to the project to review the daily activity and assist in scheduling the work. Field and laboratory tests will be reviewed prior to submittal. The project manager will be responsible for maintaining the project budget and will oversee the preparation of the final test reports.

Terracon recommends that the general contractor schedule pre-construction meetings prior to each phase of our proposed testing and observations to discuss the erection sequence, review welding and bolting requirements and to review welder certification records.

1.6 Special Inspections Letter

Upon completion of our services, a special inspection letter will be prepared, if requested. The letter will list services we performed and if the results and/ or observations were in compliance with the project documents. A copy of our test reports will be available with the special inspection letter if requested.

1.7 Additional Services

If you would like us to perform additional work, please contact us and we will issue a short Supplement to Agreement form, or Supplemental Proposal, that outlines the additional work to be performed and associated fees. To authorize us to begin work, you simply return a signed copy of the Supplemental agreement.



1.8 Mechanically Stabilized Earth (MSE) Walls

This proposal excludes materials testing and observations related to mechanically stabilized earth (MSE) walls. Should the owner or client require Terracon to provide services on any portion of the MSE wall, Terracon should be requested to provide a separate proposal prior to start of construction of the MSE walls. Terracon requires an internal cursory review of the MSE wall design. This cursory review is only for internal Terracon purposes and is intended to establish the appropriate scope of construction materials testing services for the project if it is decided we will accept the assignment. This review should not be construed as accepting any design responsibility or providing any review capacity for the contractor or owner.

2.0 **REPORTING & SCHEDULE**

Results of field tests will be submitted verbally to available personnel at the site. Written reports of field tests and observations will be distributed within five business days. Test reports will be distributed via e-mail. You will need to provide Terracon with a distribution list prior to the beginning of the project. The list will need to include the company name, address, contact person name, phone number, and e-mail address for each person.

Our reported test locations will typically be estimated by pacing distances and approximating angles and elevations from local control data (staking and layout lines) provided by others on site. The accuracy of our locations will be dependent on the accuracy, availability and frequency of the control points provided by the client and/ or contractor.

Field testing services will be provided on an "as requested" basis when scheduled by your representative. A notice of 24 hours (48 hours is required for structural steel services) is required to properly schedule our services. To schedule our services please contact our dispatcher at (713) 690-2258. The dispatch office hours are from 7:00 a.m. to 5:00 p.m. Messages left after business hours will be checked the following business day. Terracon shall not be held responsible for tests not performed as a result of a failure to schedule our services or any subsequent damage caused as a result of a lack of testing.

Terracon recommends that a copy of this proposal be provided to the general contractor so they understand our scope of services and schedule us accordingly. Please note that the number of tests and trips described in the Scope of Services does not constitute a minimum or maximum number of tests or trips that may be required for this project.

It is the responsibility of your representative to schedule retests in a like manner to scheduling our original services. Terracon shall not be held responsible for retests not performed as a result of a failure to schedule our services or any subsequent damage caused as a result of a



lack of retesting.

3.0 COMPENSATION

Based on the project information available for our review, we propose an estimate cost of **<u>\$256,080.</u>** Services provided will be based on the unit rates included in the attached Cost Estimate. Please note that this is only a budget estimate and not a not-to-exceed price. Many factors beyond our control, such as weather and the contractor's schedule, will dictate the final fee for our services. Quantities for re-tests, cancellations and stand-by time are not included in our fee.

For services provided on an "as requested" basis, overtime is defined as all hours in excess of eight hours per day, outside of the normal hours of 7:00 A.M to 6:00 P.M. Monday through Friday, and all hours worked on weekends and holidays. Overtime rates will be 1.5 times the hourly rate quoted. A four hour minimum charge is applicable to all trips made to provide our testing, observation and consulting services. The minimum charge is not applicable for trips to the project site for sample pickup only. All labor, equipment and transportation charges are billed on a portal to portal basis from our office. You will be invoiced on a monthly basis for services actually performed and / or authorized by the above listed client or designated representative. Terracon's total invoice fee is due within thirty days following final receipt of invoice.

4.0 SITE ACCESS AND SAFETY

Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the services and will execute any necessary site access agreement. Terracon will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any third parties, including Client's contractors, subcontractors, or other parties present at the site. In addition, Consultant retains the right to stop work without penalty at any time Consultant believes it is in the best interests of Consultant's employees or subcontractors to do so in order to reduce the risk of exposure to the coronavirus. Client agrees it will respond quickly to all requests for information made by Consultant related to Consultant's pre-task planning and risk assessment processes. Client acknowledges its responsibility for notifying Consultant of any circumstances that present a risk of exposure to the coronavirus or individuals who have tested positive for COVID-19 or are self-quarantining due to exhibiting symptoms associated with the coronavirus.



5.0 TESTING AND OBSERVATION

Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Terracon will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive and are conducted to reduce – not eliminate - project risk. Client agrees to the level or amount of testing performed and the associated risk. Client is responsible (even if delegated to contractor) for notifying and scheduling Terracon so Terracon can perform these services. Terracon shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Terracon's performance of testing and observation services shall not relieve contractor in any way from its responsibility for defects discovered in its work or create a warranty or guarantee. Terracon will not supervise or direct the work performed by contractor or its subcontractors and is not responsible for their means and methods.

6.0 AUTHORIZATION

It is our understanding that Fort Bend County will provide an agreement to Terracon with terms and conditions.

We appreciate the opportunity to provide this proposal and look forward to the opportunity of working with you.

Sincerely, Terracon Consultants, Inc. (TBPE Firm Registration No. F-3272)

Ivan Eduardo Acuña, P.E. Senior Project Manager Materials Services

Chad C. Gordon, P.E. Materials Services Manager

Attachments: (1) Cost Estimate



COST ESTIMATE Greenbusch Road Paving & Drainage Improvements – Phase II Ensley Hollow Drive, Katy, 77494 Terracon Proposal No.P92211495

Terracon Proposal No.P922 Service (As described in proposal)	Quantity	Unit	Unit Rate	Estimate
EARTHWORK	Quantity	Unit	Unit Kale	Estimate
Estimate 2 trips at 4 hours each to obtain subgrade sample				
Estimate 2 trips at 4 hours each to obtain cement stabilized sand				
Estimate 10 trips at 4 hours each to observe proofroll operations				
Estimate 103 trips at 12 hours each to test backfill for underground utilitie	es			
Estimate 37 trips at 10 hours each to observe chemical subgrade treatme		aradation	s. obtain trea	ated sample
Estimate 45 trips at 6 hours each to test compaction of pavement subgra				•
Field Representative, Regular Hours	1356	hours	\$ 50.00	\$ 67,800.00
Field Representative, Over Time Hours	576	hours	\$ 75.00	\$ 43,200.00
Moisture Density Relationship - Standard	10	each	\$ 150.00	\$ 1,500.00
Moisture Density Relationship - Modified	2	each	\$ 220.00	\$ 440.00
Atterberg Limits	9	each	\$ 65.00	\$ 585.00
Compressive Strength for CSS	24	each	\$ 40.00	\$ 960.00
Density Gauge	148	day	\$ 60.00	\$ 8,880.00
Vehicle Charge	199	trip	\$ 60.00	\$ 11,940.00
Subtotal, Earthwork				\$ 135,305.00
FOUNDATION				
Estimate 4 trips at 8 hours each to observe and test concrete for top of w	all sheet pi	ling		
Estimate 3 trips at 12 hours each to observe and test concrete for drilled	•	-		
Estimate 2 trips at 6 hours each to observe and test concrete for wingwal	-			
Field Representative, Regular Hours	56	hours	\$ 50.00	\$ 2,800.00
Field Representative, Over Time Hours	24	hours	\$ 75.00	\$ 1,800.00
Vehicle Charge	9	trip	\$ 60.00	\$ 540.00
Concrete Test Cylinders	208	each	\$ 16.00	\$ 3,328.00
Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and				
processing)	9	each	\$ 150.00	\$ 1,350.00
Subtotal, Foundation				\$ 9,818.00
CAST-IN-PLACE CONCRETE				
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Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs		ge		
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curb Estimate 35 trips at 8 hours each to test concrete for pavements		hours	\$ 50.00	\$ 19,200.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours	s	-		
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours	s 384	hours		\$ 16,800.00 \$ 875.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge	s 384 224 5 91	hours	\$ 75.00 \$ 175.00 \$ 60.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders	s 384 224 5 91 504	hours hours each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 8,064.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less	s 384 224 5 91 504 24	hours hours each trip	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 8,064.00 \$ 2,400.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch	s 384 224 5 91 504	hours hours each trip each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 8,064.00 \$ 2,400.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive	s 384 224 5 91 504 24 24 24	hours hours each trip each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00 \$ 10.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 8,064.00 \$ 2,400.00 \$ 240.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive strength)	s 384 224 5 91 504 24 24 24 24	hours hours each trip each each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00 \$ 10.00 \$ 10.00 \$ 100.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 2,400.00 \$ 240.00 \$ 2,400.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive strength) Compressive Strength For Grout	s 384 224 5 91 504 24 24 24	hours hours each trip each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00 \$ 10.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 2,400.00 \$ 240.00 \$ 2,400.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive strength) Compressive Strength For Grout Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and	s 384 224 5 91 504 24 24 24 24 24 12	hours hours each trip each each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00 \$ 100.00 \$ 100.00 \$ 100.00 \$ 35.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 2,400.00 \$ 240.00 \$ 240.00 \$ 2,400.00 \$ 240.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00
Estimate 14 trips at 4 hours each to test concrete for sidewalks and curbs Estimate 35 trips at 8 hours each to test concrete for pavements Field Representative, Regular Hours Field Representative, Over Time Hours Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive strength) Compressive Strength For Grout Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and processing)	s 384 224 5 91 504 24 24 24 24	hours hours each trip each each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 100.00 \$ 10.00 \$ 10.00 \$ 100.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 13,650.00
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Mix Design Review Vehicle Charge Concrete Test Cylinders Concrete Pavement Cores, 4" diameter up to 6" depth or less Concrete Coring, additional thickness gretaer than 6" depth, per inch Testing Concrete Cores (Includes: length, sawing, capping and compressive strength) Compressive Strength For Grout Sample Pick-up (Includes 1.5 hours to pickup cylinders, travel time and processing) Subtotal, Cast-in-Place Concrete ASPHALT Estimate 6 trips at 10 hours each to test asphalt base and surface course Field Representative, Regular Hours	s 384 224 5 91 504 24 24 24 12 91 91 48	hours hours each trip each each each each each each	\$ 75.00 \$ 175.00 \$ 60.00 \$ 16.00 \$ 10.00 \$ 10.00 \$ 10.00 \$ 35.00 \$ 150.00 \$ 50.00	\$ 16,800.00 \$ 875.00 \$ 5,460.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 2,400.00 \$ 420.00 \$ 13,650.00 \$ 69,509.00 \$ 2,400.00
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