

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 Terra Associates, 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 construction of a three-lane concrete roadway with concrete curb and gutter, and drainage improvements from McCrary Road to Mason Road for the Brandt Project, Number 17310, 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, a drainage analysis, a signal warrant analysis, preliminary design services, final design services (including a bridge design), geotechnical investigation/report, and bidding and construction phase services for the project as described Contractor's proposal dated April 24, 2018 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 one million forty-five thousand two hundred eighty dollars and no/100 (\$1,045,280.00) 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 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 one million forty-five thousand two hundred eighty dollars and no/100 (\$1,045,280.00) 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 one million forty-five thousand two hundred eighty dollars and no/100 (\$1,045,280.00).

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, 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 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 |
| Contractor: | Terra Associates, Inc. Attn: Lyle E. Henkel, President 1445 N. Loop W., Suite 450 Houston, Texas 77008 |

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

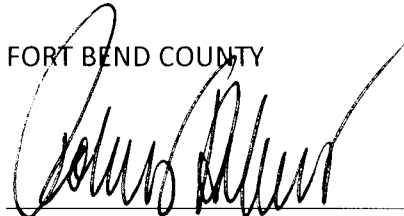
25.1 Agreement to Not Boycott Israel Chapter 2270 Texas Government Code: By signature below, Contractor verifies Contractor does not boycott Israel and will not boycott Israel during the term of this Agreement.

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.

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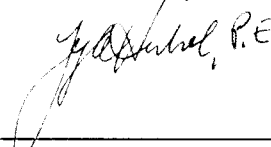
IN WITNESS WHEREOF, the parties hereto have signed or have caused their respective names to be signed to multiple counterparts to be effective on the date signed by the last party hereto.

FORT BEND COUNTY



Robert E. Hebert, County Judge

TERRA ASSOCIATES, INC



Lyle E. Henkel, President

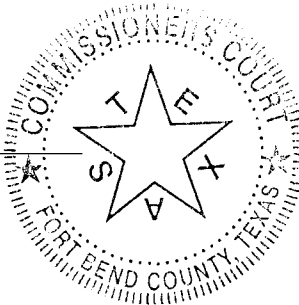
May 22, 2018
Date

May 10, 2018
Date

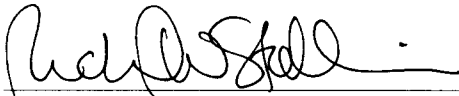
ATTEST:



Laura Richard, County Clerk

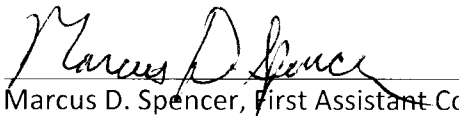


APPROVED:



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

APPROVED AS TO LEGAL FORM:



Marcus D. Spencer, First Assistant County Attorney

AUDITOR'S CERTIFICATE

I hereby certify that funds are available in the amount of \$1,045,280 to accomplish and pay the obligation of Fort Bend County under this contract.



Robert Ed Sturdivant, County Auditor

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EXHIBIT A



EXHIBIT A

April 24, 2018

Mr. Richard Stolleis, PE
Fort Bend County Engineering
301 Jackson Street
Richmond, Texas 77469

Re: **Brandt Road**
McCrary Road to Mason Road – Approximately 8400 Linear Feet
Fort Bend County, Texas

Fort Bend County Project: 17310
TAI Project Number: 0522 - 1801
TAI Firm No.: F-003832

Mr. Stolleis,

Terra Associates appreciates this opportunity to submit this proposal for surveying, a drainage analysis, a signal warrant analysis, preliminary design services, final design services (including a bridge design), geotechnical investigation/report, and bidding & construction phase services as required for the aforementioned project. Based on our meetings with the County's Program Manager for Precinct 3, our understanding of the scope of services is as follows:

1. Preliminary Design

The primary goals of preliminary design are to:

1. Establish a typical cross section.
2. Determine the drainage system needs.
3. Determine right-of-way acquisition needs.
4. Determine potential conflicts with existing facilities & utilities.
5. Identify critical path items.
6. Identify problem areas and potential resolutions.
7. Determine permit and regulatory requirements.
8. Prepare a preliminary cost estimate.

Topographic Survey

We will provide the survey data for the basic service design. The topographic data will be obtained for the proposed and existing right of way plus 20-feet outside. Abstracting of project area will be performed to obtain property ownerships and existing ROW limits. Benchmarks and baseline control will be established with maximum 1000-foot spacing. We will obtain cross sections every 100-feet and collect information on utilities by utilizing the required items and task for a LEVEL B SUE.

1. Topographic Survey including paving, storm drainage, roadside ditches, utilities (public and private), sidewalks, striping, structures, and landscaped areas. All topographic information will be

based on TSARP Monuments, 1988 NAVD, 2001 adjusted datum. Topographic area will include right of way and 20-feet outside each side of right of way.

2. Structures within clear view of 100-feet of the ROW will be obtained.
3. Right of Way locations will be obtained including any research necessary to adequately document the right of way of Mason Road, Precinct Line Road, Skinner Road, and McCrary Road within the project limits.
4. A survey control map will be prepared to be included in the construction plans for the project.
5. A parcel map with metes and bounds descriptions for each parcel to be acquired will be included.
6. A KMZ file showing existing ROW and ownership information and proposed takings with parcel numbers, and a preliminary roadway layout will be provided.

Drainage Analysis

We will perform the necessary analysis to identify any storm water drainage impacts associated with the proposed project and recommend appropriate mitigation solutions. A report will be prepared providing supporting documentation of the findings of the analysis and recommendations meeting the criteria of the various regulatory agencies for their approval and acceptance. The report will be of sufficient detail such that construction plans can be prepared to reflect the recommended drainage features.

Signal Warrant Analysis

Crash data will be collected from approval agency for the past three consecutive years. Turning movement counts will be collected for a minimal time period of 8 hours. A traffic signal warrant analysis will be conducted at the study intersection. Collected traffic counts will be utilized for an 8-hour time period. The traffic signal warrant analysis will determine if a traffic signal warrant was satisfied; thus meeting one or more of the nine warrants set forth by the MUTCD.

Geotechnical Investigation

A Geotechnical investigations and report will be completed during preliminary design, in accordance with Fort Bend County criteria. The report will include the calculation for the equivalent single axle load (ESAL) for the county standard pavement design of 8 inches of concrete with 8 inches of lime stabilize subgrade. The section between McCrary Road and Precinct Line Road will be completed as soon as access rights are obtained by the county for the geotechnical engineer.

Preliminary Design Report

A Preliminary Engineering Report will be prepared for preliminary design, for the purpose of documenting the goals of the engineering design. The report will include the drainage report, a geotechnical report, and a signal warrant analysis. Three copies of the report will be submitted for review. We will meet with representatives of the County to review the report. The report will also include the following:

1. *30% Plans*- plans will show all of the existing features and plan and profile. Plans will also show proposed improvements in plan view only with minor annotation. A typical cross-section of the proposed Street will be included.
2. *Utility Coordination* – we will determine the presence and location of underground utilities (pipelines, duct banks, etc.). A reasonable amount of research will be conducted, including but not limited to contact with companies identified on above-ground markers, Railroad Commission website research, and map requests from prominent companies (CenterPoint, AT&T, etc.). CenterPoint Energy and AT&T I.D. numbers will be obtained. An appropriate attempt will be made to depict underground utilities accurately in the plan and profile

drawings, and potential conflicts between existing utilities and proposed features will be identified. Contact with utility companies (both overhead and underground) to coordinate the adjustment of existing utilities will be made by the County and/or its project management consultant.

3. *Environmental Investigations* - will be performed by the County.

Preliminary Design Compensation

Except as noted, all preliminary design efforts will be paid in a single lump-sum fee, to be billed monthly on a percent complete basis by task. Major tasks of preliminary design (design, survey, geotechnical, etc.) will be itemized in the invoices.

2. Final Design

We shall prepare construction drawings and specifications accurately and efficiently. Interim submittals will be made at 70 percent and 95 percent completion, and shall include drawings, a specification table of contents and a construction cost estimate.

Applicable design criteria include, in order of priority, (1) Fort Bend County Drainage Criteria Manual (Fort Bend County Drainage District, November 1987, revised April 1999), (2) municipal design criteria if the project is located within the limits of a municipality that has design criteria, (3) Guidelines for Engineers Having Contracts with Harris County, Texas (Harris County Public Infrastructure Department, 1988), (4) applicable Texas Department of Transportation design criteria (all County-maintained traffic signals, other items as applicable), and (5) the Infrastructure Design Manual (City of Houston Department of Public Works and Engineering, current version, used for infrastructure for which design criteria do not exist in the preceding criteria documents).

The 70 percent submittal shall include the following:

- Cover sheet (Fort Bend County name and seal, project name with limits, vicinity and location maps, names of County Judge and Commissioners, signature line for County Engineer, design firm name and registration number)
- Typical and non-standard cross-sections sections (not-to-scale proposed sections with station limits for each section; showing pavement/subgrade material and thickness, right-of-way and roadway width, applicable dimensions, profile grade line, and general location of existing and proposed utilities)
- Overall project layout (scale as appropriate with sheet references left blank)
- Survey control map
- Drainage area map with hydraulic calculations
- Plan and profile sheets (1"=20' plan scale but printed half-size for a 1"=40' scale; all existing and proposed facilities correctly shown in plan and profile; detailed callouts will not be shown)
- Traffic control plan with phasing and traffic control
- Storm Water Pollution Prevention Plan layout and details
- Bridge layout and details
- Specification table of contents
- Bid form with estimated unit and total costs (spreadsheet based)

Three copies of the 70 percent submittal will be provided for County review on 11 x 17 sheets. A digital copy of the PDF drawings will also be provided along with specifications and a cost estimate.

The 95 percent submittal shall include the following:

- All of the 70 percent requirements
- General notes sheet
- Cross sections (100-foot intervals with earthwork calculations)
- Signage and pavement marking plans (signs may be shown on plan and profile sheets and use of pavement marking standards will be utilized)
- Standard construction details
- Project manual with bid form, specification table of contents, any special specifications or conditions
- Responses to 70 percent comments

Three copies of the 95 percent submittal will be submitted for County review. Drawings shall be submitted on 11 x 17 sheets. A digital copy of the PDF drawings will also be provided along with the specifications and a cost estimate

The 100% submittal shall include the following:

- One signed and sealed set of drawings
- a PDF of the drawings specifications and cost estimate

Traffic Signal Design. If warranted, we will prepare a final set of civil engineering construction plans for the improvements set forth by the County at the scoping meeting. We will include an existing conditions layout, demolition layout, quantities sheet, proposed traffic signal layout, traffic signal elevations layout, electrical schedule and pole/controller location tables, pavement marking and signage layout, and associated standards as dictated by Fort Bend County. Provisions for modifications to left turn lanes and median curb/curb noses, sidewalks and ADA ramps, as required, will be included.

Final Design Compensation

All final design efforts shall be billed as a single lump-sum fee, to be billed monthly on a percent complete basis.

3. Bid and Construction Phase Services

Upon completion of final design services, County will determine an advertisement and bid opening schedule. All administrative project manual documents (cover page, Notice to Bidders, etc.) will be prepared by the County and provided to the design consultant in Adobe Acrobat (pdf) format. We will prepare a single project manual file in Adobe Acrobat format, consisting of:

- Administrative documents
- The bid form (prepared by the design consultant)
- A sealed specification table of contents
- Applicable specifications and documents

We will prepare a single file in Adobe Acrobat format for the entire drawing set. Except for the cover sheet, which contains approval signature(s), all drawings will be printed directly to Adobe Acrobat format with electronic seal and signature.

We will prepare 28 compact discs, each with one project manual file and one drawing file. Of these, 25 compact discs will be delivered to the County Purchasing Agent for advertising, and three discs will be provided to the County's project management consultant. Printed documents will not be provided.

We will attend a pre-bid meeting at the County Purchasing Office. We will provide a brief description of the project.

The County Purchasing Agent will forward bidder questions to us. Answers to RFIs, as well as any other required changes, will be included in an addendum, prepared by us if necessary. The County Purchasing Agent will distribute the addendum.

After the bid, the County's project management consultant will prepare a bid tabulation and provide a copy to us for filing.

We will attend a pre-construction meeting with the County, project management consultant, general contractor, and construction materials testing contractor. Prior to the meeting, the project management consultant will inform us of how many drawing and project manual sets are required. We will provide these documents at the pre-construction meeting.

We will be responsible for reviewing contractor submittals and responding to Requests for Information.

Will not be required to do field visits and progress meetings unless requested by the County.

We will participate in a substantial completion walkthrough.

After project completion, we will prepare record drawings based on contractor as-built markups. The record drawings will be printed on paper and delivered to the County.

Compensation

All bid phase and construction phase services will be billed on a time and material (T&M) basis. The not to exceed fee for the services will be as determined by the County and/or its project manager in conjunction with the design consultant. Monthly billing shall include a breakdown of hours spent by personnel in the various employee categories, at the agreed-upon billing rates between the County and us.

Schedule. See exhibit B.

Best regards,

Mr. Lyle Henkel, P.E.
President

Date Prepared: April 24, 2018

| DESIGN CONSULTANT NAME: TERRA ASSOCIATES / JNS ENGINEERS LLC | | 2018 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--------|---|----|----|----|--------|----|----|--------|---|----|--------|----|---|--------|----|----|--------|---|----|--------|----|---|--------|----|----|--------|---|----|--------|----|---|--------|----|----|----|---|----|----|----|----|---|----|----|----|---|----|----|----|
| ACTIVITY | | Apr-18 | | | | | May-18 | | | Jun-18 | | | Jul-18 | | | Aug-18 | | | Sep-18 | | | Oct-18 | | | Nov-18 | | | Dec-18 | | | Jan-19 | | | Feb-19 | | | | | | | | | | | | | | | | |
| PROJECT ITEM DESCRIPTION | | 2 | 9 | 16 | 23 | 30 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 | 2 | 9 | 16 | 23 | 30 | 6 | 13 | 20 | 27 | 3 | 10 | 17 | 24 | 1 | 8 | 15 | 22 | 29 | 5 | 12 | 19 | 26 | 33 | 3 | 10 | 17 | 24 | 31 | 7 | 14 | 21 | 28 | 4 | 11 | 18 | 25 |
| ROW ALIGNMENT AND MAPPING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ALIGNMENT VERIFICATION MEETING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOPOGRAPHIC SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GEOTECH REPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNAL WARRANT STUDY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STUDY PHASE (with 30% drawings) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BRIDGE DESIGN - PRELIM AND FINAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAINAGE STUDY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COST ESTIMATE (STUDY & REPORT PHASE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REVIEW OF STUDY & REPORT BY FORT BEND CO. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAI/JNS RESPONDS TO STUDY & REPORT PHASE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROGRESS MEETING TO REVIEW STUDY & REPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FINAL ROW MAPS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70% REVIEW BY FORT BEND COUNTY ENGINEERING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95% REVIEW BY FORT BEND COUNTY PERMITS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVAL BY FORT BEND COUNTY PERMITS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COURT DATE - 08.27.2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADVETISE - 09.01.2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

EXHIBIT B - SCHEDULE (Brandt Road from McCrary Road to Mason Road)

Client: Fort Bend County Engineering Department

Project Name: Brandt Road

Project Limits : Brandt Road from McCrary Road 8,400LF (+/-) East to Mason Road

FBC Project No. 3-10

TAI Job No. 0522-1801 & JNS Job No. 262-08

| DESIGN CONSULTANT NAME: TERRA ASSOCIATES / JNS ENGINEERS LLC | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--------|----|----|----|--------|---|----|----|--------|---|----|----|--------|---|----|----|--------|---|---|----|--------|----|---|----|--------|----|---|---|--------|----|----|---|----|----|----|
| 2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ACTIVITY | Mar-19 | | | | Apr-19 | | | | May-19 | | | | Jun-19 | | | | Jul-19 | | | | Aug-19 | | | | Sep-19 | | | | Oct-19 | | | | | | |
| PROJECT ITEM DESCRIPTION | 4 | 11 | 18 | 25 | 1 | 8 | 15 | 22 | 29 | 6 | 13 | 20 | 27 | 3 | 10 | 17 | 24 | 1 | 8 | 15 | 22 | 29 | 5 | 12 | 19 | 26 | 2 | 9 | 16 | 23 | 30 | 7 | 14 | 21 | 28 |
| ROW ALIGNMENT AND MAPPING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ALIGNMENT VERIFICATION MEETING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TOPOGRAPHIC SURVEY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| GEOTECH REPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| SIGNAL WARRANT STUDY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| STUDY PHASE (with 30% drawings) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| BRIDGE DESIGN - PRELIM AND FINAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| DRAINAGE STUDY | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COST ESTIMATE (STUDY & REPORT PHASE) | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| REVIEW OF STUDY & REPORT BY FORT BEND CO. | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| TAI/JNS RESPONDS TO STUDY & REPORT PHASE | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| PROGRESS MEETING TO REVIEW STUDY & REPORT | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| FINAL ROW MAPS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 70% REVIEW BY FORT BEND COUNTY ENGINEERING | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 95% REVIEW BY FORT BEND COUNTY PERMITS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| 100% SUBMITTAL | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| APPROVAL BY FORT BEND COUNTY PERMITS | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| COURT DATE - 08.27.2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
| ADVETISE - 09.01.2019 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

Fort Bend County 2017 Mobility Bond Program Fee Estimate Worksheet
Brandt Road - McCrary Road 8400-LF +/- East to Mason Road

| TASK DESCRIPTION | PRINCIPAL | SENIOR PROJECT MANAGER | SENIOR PROJECT ENGINEER | PROJECT ENGINEER | CADD MANAGER | SENIOR DESIGNER | SR. CADD TECHNICIAN | CLERICAL | TOTAL HOURS | Task Total |
|---|-----------|------------------------|-------------------------|------------------|--------------|-----------------|---------------------|----------|-------------|-------------------|
| 1. Preliminary Design (LS) | | | | | | | | | | \$ 543,420 |
| Establish a Typical Cross Section | 4 | | | | | | 8 | | 12 | \$ 2,080 |
| Determine Drainage System Needs - Drainage Impact Analysis | 20 | 200 | | 200 | | | 60 | 8 | 488 | \$ 95,400 |
| Determine ROW Acquisition Needs | 4 | 8 | 16 | 24 | 20 | 20 | 32 | | 124 | \$ 16,800 |
| Abstracting | | | | | | | | | | \$ 9,200 |
| Site Visibility Exhibits | | | | | | | | | | \$ 12,000 |
| Determine Potential Conflicts with existing facilities & utilities | 4 | 8 | 16 | 32 | 32 | 20 | 32 | | 144 | \$ 19,040 |
| Identify Critical Path Items | 16 | 16 | 16 | 16 | 24 | | | | 88 | \$ 16,480 |
| Identify Problem Areas and Potential Resolutions | 2 | 20 | | 20 | | | | | 42 | \$ 8,800 |
| Permit and Regulatory Requirements | 4 | 6 | 8 | 10 | | | | 10 | 38 | \$ 6,540 |
| Prepare 30% Plans | 20 | 40 | 40 | 80 | | 200 | 450 | | 830 | \$ 103,900 |
| Construction Cost Estimate | | | | 80 | | | 40 | | 120 | \$ 14,800 |
| Utility Coordination | 4 | 8 | 12 | 16 | 12 | | | | 52 | \$ 8,760 |
| Geotechnical Investigation | | | | | | | | | 0 | \$ 30,800 |
| Signal Warrant Analysis | 1 | 2 | | 30 | | | 16 | | 49 | \$ 6,520 |
| Topographic Survey | | 20 | 250 | 60 | 120 | 120 | 200 | | 770 | \$ 101,900 |
| Control & Monumentation - Prepare Survey Control Map | | 8 | 16 | 24 | 60 | 60 | 60 | | 228 | \$ 26,680 |
| Cat 1A Survey - Project map of Existing and Proposed ROW | | 4 | 20 | 16 | 16 | 12 | 24 | | 92 | \$ 12,040 |
| Descriptions and Exhibits for Parcel Takings - 3 Max (\$5,000 each) | | | | | | | | | 0 | \$ 15,000 |
| KMZ File of ROW Takings | | 4 | | | 9 | 10 | 18 | | 41 | \$ 5,000 |
| Preliminary Engineering Report | 4 | 8 | 32 | 40 | 32 | 32 | | 32 | 180 | \$ 23,680 |
| Preliminary Phase Expenses | | | | | | | | | | \$ 8,000 |
| | 83 | 352 | 426 | 648 | 325 | 474 | 940 | 50 | | \$ 466,750 |
| 2. Final Design (LS) | | | | | | | | | | |
| Cover Sheet & Index | | 2 | 2 | 4 | 8 | | | | 16 | \$ 2,220 |
| General Notes | | 2 | 2 | 4 | 8 | | | | 16 | \$ 2,220 |
| Typical Sections (70%-Final) | | 2 | 2 | 8 | 4 | | 24 | | 40 | \$ 4,980 |
| Project Layout | | 2 | 2 | 4 | 2 | | 30 | | 40 | \$ 4,920 |
| Drainage Area Maps | 2 | 4 | 4 | 8 | 4 | | 24 | | 46 | \$ 6,480 |
| Drainage Calculations | | 20 | | 20 | | | | | 40 | \$ 8,200 |
| Plan and Profile Sheets (Roadway, Drainage, Public Utilities) | 16 | 40 | 40 | 180 | 80 | | 280 | | 636 | \$ 85,000 |
| Intersection Layouts or Cross Street Details | | 4 | 8 | 32 | 10 | | 40 | | 94 | \$ 12,040 |
| TCP Advance Warning Signs | | 2 | 2 | 4 | 4 | | 20 | | 32 | \$ 4,020 |
| TCP Overview & Narrative | 1 | 4 | 4 | 14 | 2 | | 6 | | 31 | \$ 4,780 |
| Detour Plans (with County Approval only) | | 4 | 4 | 4 | 4 | | 8 | | 24 | \$ 3,600 |
| Traffic Control Plan | | 8 | 20 | 40 | 24 | | 80 | | 172 | \$ 22,040 |
| Traffic Signal Plans | 4 | 8 | 20 | 80 | 10 | | 60 | | 182 | \$ 24,840 |
| SWPPP Sheets | | 4 | 8 | 8 | 8 | | 40 | | 68 | \$ 8,720 |
| Bridge Design and Cross Sections | | 12 | 24 | 40 | 80 | 80 | | | 236 | \$ 87,510 |
| Signing & Pavement Markings | 2 | 4 | 20 | 20 | 40 | | 60 | | 146 | \$ 18,320 |
| Detail Sheets | | 2 | 8 | 12 | 20 | | | | 42 | \$ 5,480 |
| Standard Details | | 2 | 8 | 12 | 20 | | | | 42 | \$ 5,480 |
| Technical Specifications | 6 | 20 | 20 | 40 | | | | 40 | 126 | \$ 20,000 |
| Bid Form | | 4 | 8 | 24 | | | 40 | 8 | 84 | \$ 10,800 |
| Construction Cost Estimate | | 16 | 16 | 20 | 40 | 40 | | 3 | 135 | \$ 18,100 |
| Utility & Agency Approvals & Signatures | | 4 | 6 | 16 | 8 | | | | 34 | \$ 5,020 |
| Cross Sections with earthwork calculations | 4 | 8 | 30 | 30 | 40 | 60 | 150 | | 322 | \$ 38,940 |
| Responses to Comments | 4 | 8 | 24 | 80 | | | 160 | | 276 | \$ 35,520 |
| Project Management & Meetings | | 24 | 36 | 36 | | | | | 96 | \$ 17,520 |
| Final Design Phase Expenses | | | | | | | | | | \$ 10,000 |
| | 39 | 210 | 318 | 740 | 416 | 180 | 1022 | 51 | | |

Fort Bend County 2017 Mobility Bond Program Fee Estimate Worksheet
Brandt Road - McCrary Road 8400-LF +/- East to Mason Road

| TASK DESCRIPTION | PRINCIPAL | SENIOR PROJECT MANAGER | SENIOR PROJECT ENGINEER | PROJECT ENGINEER | CADD MANAGER | SENIOR DESIGNER | SR. CADD TECHNICIAN | CLERICAL | TOTAL HOURS | Task Total |
|---|-------------|------------------------|-------------------------|------------------|--------------|-----------------|---------------------|-------------|-------------|------------------|
| 3. Bid & Construction Phase Services (T&M) | | | | | | | | | | \$ 35,110 |
| Project Manual & Plans (PDF Format on Compact Disc * 28) | 4 | | | | | 24 | 1 | 12 | 41 | \$ 4,910 |
| Attend Pre-Bid Meeting | 3 | 3 | 3 | | | | | | 9 | \$ 2,250 |
| Answer Bidder Questions & Addendum | | | 8 | | | | | | 8 | \$ 1,360 |
| Attend Pre-Construction Meeting | 3 | 3 | 3 | | | | | | 9 | \$ 2,250 |
| Review Contractor Submittals | | | 10 | 30 | | 12 | | | 52 | \$ 6,800 |
| Answering Requests for Information | 2 | 4 | | 20 | | | | | 26 | \$ 4,320 |
| Substantial Completion Walkthrough | | 8 | | 8 | | | | | 16 | \$ 3,280 |
| Record Drawings | | 8 | | | | 20 | 20 | | 48 | \$ 6,440 |
| Bid & Construction Phase Expenses | | | | | | | | | | \$ 3,500 |
| | 12 | 26 | 24 | 58 | 0 | 56 | 21 | 12 | | |
| MANHOUR SUBTOTAL | 134 | 588 | 768 | 1446 | 741 | 710 | 1983 | 113 | 6,483 | |
| | 2% | 9% | 12% | 22% | 11% | 11% | 31% | 2% | | |
| LABOR RATE PER HOUR | \$300.00 | \$280.00 | \$170.00 | \$130.00 | \$100.00 | \$100.00 | \$110.00 | \$100.00 | | |
| SUBTOTAL LABOR | \$40,200.00 | \$164,640.00 | \$130,560.00 | \$187,980.00 | \$74,100.00 | \$71,000.00 | \$218,130.00 | \$11,300.00 | | |
| TOTAL | | | | | | | | | | \$ 1,045,280 |

Notes:

This budget assumes Engineering Fee & Construction Cost will be contributed by Developer for the portion within their development.
Terra would like to see the Terms of Agreement with Developer and County to ensure the entire scope of project is being met.
Category 1A survey will not include ROW within developer tract between McCrary and Precinct Line. That ROW will be dedicated by Developer by plat.
This budget assumes we will receive the CADD file from the developer that establishes their ROW.
All MUD information will be obtained by consultant.

CERTIFICATE OF INTERESTED PARTIES

FORM 1295

1 of 1

Complete Nos. 1 - 4 and 6 if there are interested parties.
Complete Nos. 1, 2, 3, 5, and 6 if there are no interested parties.

OFFICE USE ONLY CERTIFICATION OF FILING

1 Name of business entity filing form, and the city, state and country of the business entity's place of business.

Terra Associates
Houston, TX United States

Certificate Number:
2018-350593

Date Filed:
05/08/2018

2 Name of governmental entity or state agency that is a party to the contract for which the form is being filed.

Fort Bend County Engineering

Date Acknowledged:
05/23/2018

3 Provide the identification number used by the governmental entity or state agency to track or identify the contract, and provide a description of the services, goods, or other property to be provided under the contract.

17310
Engineering design and survey for Brandt Road from McCrary Road to Mason Road.

| 4 | Name of Interested Party | City, State, Country (place of business) | Nature of interest (check applicable) | |
|---|--------------------------|--|--|--------------|
| | | | Controlling | Intermediary |
| | | | | |
| | | | | |
| | | | | |
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| | | | | |
| | | | | |
| | | | | |

5 Check only if there is NO Interested Party.



6 UNSWORN DECLARATION

My name is _____, and my date of birth is _____.

My address is _____, _____, _____, _____, _____.
(street) (city) (state) (zip code) (country)

I declare under penalty of perjury that the foregoing is true and correct.

Executed in _____ County, State of _____, on the _____ day of _____, 20____.
(month) (year)

Signature of authorized agent of contracting business entity
(Declarant)