

STATE OF TEXAS §
 §
COUNTY OF FORT BEND §

**AMENDMENT TO AGREEMENT FOR
PROFESSIONAL ENGINEERING SERVICES**

THIS AMENDMENT, 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.

WHEREAS, the parties executed and accepted that certain Agreement for Professional Engineering Services on May 1, 2018, (hereinafter “Agreement”) pursuant to SOQ 14-025; and

WHEREAS, the parties desire to amend the Agreement for additional services to be provided and increase the total Maximum Compensation under the Agreement for the completion of such additional services.

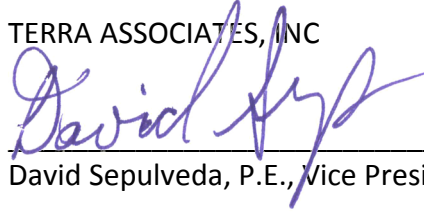
NOW, THEREFORE, the parties do mutually agree as follows:

1. County shall pay Contractor an additional two hundred fifty-six thousand two hundred thirty-five dollars and 00/100 (\$256,235.00), for the services as described in Contractor’s proposal for additional services dated September 18, 2019, attached hereto as Exhibit “A” and incorporated herein for all purposes.
2. The Maximum Compensation payable to Contractor for Services rendered is hereby increased to an amount not to exceed one million four hundred thousand six hundred fifty-five dollars and 00/100 (\$1,400,655.00), authorized as follows:
 - \$1,144,420.00 under the Agreement; and
 - \$256,235.00 under this Amendment.
3. In no case shall the amount paid by County for all Services under the Agreement and this Amendment exceed the Maximum Compensation without written agreement executed by both parties.

Except as provided herein, all terms and conditions of the Agreement shall remain unchanged.

FORT BEND COUNTY

TERRA ASSOCIATES, INC



KP George, County Judge

David Sepulveda, P.E., Vice President

10-29-19

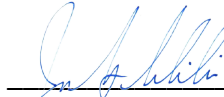
Date

Date

ATTEST:

Laura Richard, County Clerk

APPROVED:



J. Stacy Slawinski, 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 \$_____ to accomplish and pay the obligation of Fort Bend County under this contract.

Robert Ed Sturdivant, County Auditor

EXHIBIT A



September 18, 2019

Mr. Stacy Slawinski, PE
Fort Bend County Engineering
301 Jackson Street
Richmond, Texas 77469

Re: **Lake Olympia Boulevard Segment 2 from Chimney Rock Road to FM521
2017 Mobility Bond Project #17201
Fort Bend County, Texas**

TAI Project Number: 0522-1802
TBPE Registration # F-003832

Mr. Slawinski,

Terra Associates appreciates this opportunity to submit this proposal for additional services as required for the aforementioned project. The scope of the additional services is as follows:

Task X05 – Additional Surveying

We will provide additional surveying tasks as described below.

We will revise legal descriptions and parcel maps for changes to the proposed ROW alignment and widths at various locations throughout the project including the parcels adjacent to Lake Olympia north and east of American Canal.

We will provide a 150' wide strip of topo for a 100' wide drainage easement from Lake Olympia north to Mustang Bayou at the outfall located within Alternate 1. We will clear the existing wooded area as needed and the survey will include cross-sections at 100' intervals. Additionally, we will provide three cross-sections within Mustang Bayou at the outfall. These sections will be at the centerline of the outfall and 50' left and right of the centerline.

We clear and survey an approximately 0.8-acre tract between American Canal and Mustang Bayou south of the Lake Olympia ROW. We will provide approximately 4 cross-sections at 200' intervals with each cross-section being approximately 125' in length.

We clear and survey an approximately 11.5-acre tract east and north of the American Fresh Water Canal to be used for detention. We will provide approximately 8 cross-sections at 500' intervals with each cross-section being approximately 300' in length.

We will survey the existing landfill ditch at the temporary outfall for Lake Olympia. We will survey the concrete slope paving at the bend in the ditch approximately 2,200 LF west of FM521. We will provide two cross-sections upstream and downstream of the concrete slope paving at 100' intervals. We will locate any exiting drainage adjacent to the existing landfill entry drive to FM521 and tie it to its outfall in the landfill drainage ditch.

We will prepare an **unsigned metes & bounds description that is NOT staked** for a future ROW alignment of S. Post Oak Road from Lake Olympia to the northern boundary of the landfill tract. We will also provide an **unsigned metes & bounds description that is NOT staked** for a future regional detention pond within the landfill tract. Staked ROW/easements and signed/sealed legal descriptions will require additional field work at an additional cost.

We propose to provide the services described under Task X05 for a fixed fee of \$34,885.

Task X06 – Additional Geotechnical Investigation

We will provide additional geotechnical investigation design for the alternates associated with Lake Olympia including analysis for the additional paving, detention and bridge design including the work associated with accessing the outfall to Mustang Bayou north of Lake Olympia and the detention pond area east of American Canal. **We propose to provide the services described under Task X06 for a fixed fee of \$10,500.**

Task X07 – Additional Bridge Design for American Canal and Mustang Bayou

We will design the north half of the bridges (2 westbound lanes) at Mustang Bayou and American Canal based on the current roadway alignment. The bridge will be designed for HL-93 loading and will be in accordance with Fort Bend County criteria. We will revise and update the typical sections for the bridge crossings and incorporate the drainage design into the plan & profile sheets. The additional bridge design for Mustang Bayou will be part of Alternate 2. The additional bridge design for American Canal will be part of Alternate 3. An updated cost estimate will be provided for the bridge improvements.

We will update the design models used for the eastbound bridge to incorporate the westbound lanes. A HEC-RAS analysis will be performed to determine hydraulic impacts during the 2, 5, 50 and 100-year events in accordance with Fort Bend County Drainage District (FBCDD) requirements.

We propose to provide the services described under Task X07 for a fixed fee of \$118,060.

Task X08 – Revised Drainage and Detention Analysis

We will revise the drainage and detention analysis for Lake Olympia east of American Canal. These revisions are required due to the future TxDOT improvements along FM521. The outfall and detention design for Lake Olympia are impacted by the FM521 improvements. We will include an interim outfall design for Lake Olympia into the landfill drainage system until such time that the FM521 drainage improvements are complete and can accept the water directly from Lake Olympia. The interim outfall design will include a water quality feature prior to discharging into the landfill system. **We propose to provide the services described under Task X08 for a fixed fee of \$12,920.**

Task X09 – Additional Roadway Design

We will design the north half of Lake Olympia from Chimney Rock to American Canal. This will create a full boulevard section within the entire limits of Segment 2 from Chimney Rock to FM521. The additional paving from Chimney Rock to the western property line of the landfill

will be identified as Alternate 1 and is approximately 4,200 LF. The additional paving from the western property line of the landfill to the approximate midpoint between Mustang Bayou and American Canal is Alternate 2 approximately 3,600 LF. Alternate 3 is from the approximate midpoint between Mustang Bayou and American Canal going east to the original western boundary line of the landfill prior to its expansion in 2016 and is approximately 2,200 LF. Alternate 4 is from the original western boundary line of the landfill to the western end of the TxDOT improvements that are part of the FM521 Improvement project and is approximately, 2,000 LF. The remaining length of the Lake Olympia Segment 2 project to FM 521 is approximately 2,250 LF.

We will prepare additional cross-sections at each station between Chimney Rock and American Canal to include a full boulevard within the limits of Alternate 1, 2 and the beginning of Alternate 3. We will also provide additional paving and dirtwork quantities and estimates for each alternate to be included in the bid form.

We will modify the drainage and detention system design for the system east of American Canal. The drainage system east of American Canal will be detained on the south side of Lake Olympia and temporarily discharge into the landfill's drainage ditch on the north side of Lake Olympia. We will design a storm water quality feature(s) downstream of the detention pond to treat the water prior to its discharge into the landfill's ditch. Once the FM521 improvements are complete, the outfalls into the landfill's ditch will be abandoned and directed into the drainage system for FM521.

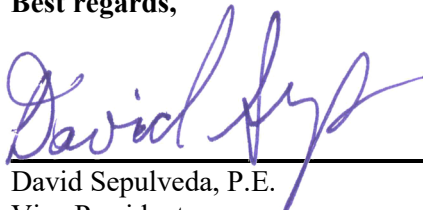
We propose to provide the services described under Task X09 for a fixed fee of \$76,530.

Task D03 – Additional Construction Phase Services

We will provide additional construction phase services on an as-needed time and materials basis to allow for the increased scope of construction. In accordance with our agreement, all Construction Phase Services will require backup material justifying any costs submitted to the County. **We request a budget of \$3,340 for the work associated with this task.**

The total request for this change order is \$256,235. If you have any questions, or require additional information, please contact us at any time.

Best regards,



David Sepulveda, P.E.
Vice President

Accepted and Agreed to:

By: _____

Name: _____

Title: _____

Date: _____