



2. **Limit of Appropriation.** Contractor understands and agrees that the Maximum Compensation payable to Contractor for Services rendered under this Agreement is hereby increased to an amount not to exceed One Million Eight Hundred Five Thousand Four Hundred Ninety Two and 80/100 (\$1,805,492.80) authorized as follows:

\$740,000 under the Agreement  
\$10,750.00 under the First Amendment  
\$5,682.50 under the Second Amendment  
\$331,543.00 under the Third Amendment  
\$248,959.00 under the Fourth Amendment  
\$32,180.00 under the Fifth Amendment  
\$80,569.50 under the Sixth Amendment  
\$33,990.00 under the Seventh Amendment  
\$321,818.80 under this Eighth Amendment

In no event shall the amount paid by County under this Agreement exceed the Maximum Compensation without a County approved change order. 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 Eight Hundred Five Thousand Four Hundred Ninety Two and 80/100 (\$1,805,492.80) specifically allocated to fully discharge any and all liabilities County may incur under the Agreement.

Contractor does further understand and agree, said understanding and agreement also being of the absolute essence of the 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 under the Agreement shall not under any conditions, circumstances, or interpretations thereof exceed One Million Eight Hundred Five Thousand Four Hundred Ninety Two and 80/100 (\$1,805,492.80).

3. **Recitals.** The recitals set forth above are incorporated herein by reference and made a part of the Agreement.
4. **Human Trafficking.** BY ACCEPTANCE OF THIS AGREEMENT, CONTRACTOR ACKNOWLEDGES THAT FORT BEND 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.
5. **Modifications and Conflict.** Except as modified herein, the Agreement, as amended, shall remain in full force and effect and has not been otherwise modified or amended. If there is a conflict among documents that make up the Agreement, this Eighth Amendment shall prevail with regard to the conflict.

**FORT BEND COUNTY, TEXAS**

**ZARINKELK ENGINEERING SERVICES, INC.**

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

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

Giti Zarinkelk

\_\_\_\_\_  
Date

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

President

**ATTEST:**

\_\_\_\_\_  
Title

06/15/2023

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

\_\_\_\_\_  
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, Texas under this Agreement.

\_\_\_\_\_  
Robert E. Sturdivant,  
County Auditor

# **EXHIBIT A-8**

(May 1, 2023 Proposal follows behind)



617 Caroline Street  
Houston, Texas 77002  
Phone 832-242-2426  
Fax 832-242-2445

May 1, 2023

Stacy Slawinski, P.E.  
County Engineer  
301 Jackson St., 4th Floor  
Richmond, TX 77469

Attn: Gabriel Odreman, P.E., Program Manager

Project: Chimney Rock - Project 13203

**RE: Project 13203 Chimney Rock Road; 8<sup>th</sup> Amendment**

Dear Mr. Slawinski:

This proposal is written to address the recent changes in the project that have necessitated dividing the project into two segments. Chimney Rock Segment 1 (Segment 1) consists of that portion of Chimney Rock from Tabor Mills Drive to the bridge at American Canal will move into construction first. Chimney Rock Segment 2 (Segment 2) includes the bridge at American Canal and extends to FM 2234. Segment 2 changes include:

- Raising the road profile at American Canal and at FM2234
- Removing the cross-drainage culverts
- Adding a detention basin on the west side of the roadway
- Channelizing roadside ditches on the west side to the new detention basin
- Enlarging the detention basin on the east side by increasing its depth
- Eliminating the second and smaller basin on the east side
- Connecting the basins on the east side and west side with a box culvert system
- Channelizing the roadside ditches on the east side and discharging them to the new box culvert system
- Increasing the ROW to 150 feet at FM 2234

Required to accomplish this redesign are the following additional services:

- Survey topo for the new detention basin on the west side
- Survey topo for the existing detention basin on the east side for a possible expansion
- Survey ROW and metes and bounds for the new detention basin on the west side
- Survey ROW and metes and bounds for the roadway at FM 2234 to obtain 150-foot ROW
- Survey topo, ROW and metes and bounds for the connecting box culvert system

Stacy Slawinski, P.E.  
May 1, 2023; Page 2

- Survey topo, ROW and metes and bounds for the potential expansion of the existing basin on the east side
- Geotechnical for the new basin on the west side
- Geotechnical for the deepening of the basin on the east side
- Geotechnical for the possible expansion of the basin on the east side
- Electrical design for instrumentation and controls for possible addition of one pump
- Structural design for the deeper and larger pump station
- Bridge structural bid and construction phase services for the American Canal

This proposal includes design work needed to complete Segment 2. Included in this proposal are the following items:

- Coordination and meeting with the client and the developer's engineer
- Updating the Segment 2 quantities
- Revising bid sheet, cost estimates and specifications
- Plan revisions to address plan and profiles, pump station, pump station instrumentation and controls, pump station structural, design of new detention basin, redesign of existing detention basin, redesign of detention basin inlet and outlet, double 10x10 RCB, minor updates to all Segment 2 plans
- Coordination with sub consultants
- Bid and construction phase services

Our proposed fee including sub consultant fees and management fees is \$321,818.80. Attached is our summary spreadsheet.

Please call me at 832-242-2426 if you have any questions. We look forward to working with RPS Group and Fort Bend County on this project.

Sincerely,



Giti Zarinkelk, P.E.  
Attachments

Chimney Rock Road from FM2234 to Rosa Parks Elementary School  
 Fort Bend Mobility Bond 2013: Project Number 13203

| TASK DESCRIPTION   | Principal | Project Manager | Senior Engineer | Sen. Hyd. Engineer or Structural Engineer | Design Engineer | Senior Designer/ | CADD Operator Technician | QA/QC Review | Clerical | Total Labor Hours & Costs |
|--|-----------|-----------------|-----------------|---|-----------------|------------------|--------------------------|--------------|----------|---------------------------|
| <b>SUB CONSULTANT SERVICES</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>TOPO &amp; METES &amp; BOUNDS, DETENTION EXPANSION &amp; 10X10S</b> |           |                 |                 |   |                 |                  |                          |              |          |                           |
| TOPO & METES & BOUNDS, DETENTION EXPANSION & 10X10S                    |           |                 |                 |   |                 |                  |                          |              |          | \$ 2,250.00               |
| SUB CONSULTANT COORDINATION  |           |                 |                 |   |                 |                  |                          |              |          | \$ 225.00                 |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 2,475.00               |
| <b>WEST DETENTION BASIN TOPO &amp; METES &amp; BOUNDS</b>              |           |                 |                 |   |                 |                  |                          |              |          |                           |
| TOPO & METES & BOUNDS  |           |                 |                 |   |                 |                  |                          |              |          | \$ 3,825.00               |
| SUB CONSULTANT COORDINATION  |           |                 |                 |   |                 |                  |                          |              |          | \$ 382.50                 |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 4,207.50               |
| <b>SUB CONSULTANT SERVICES</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>CHIMNEY ROCK 150' ROW</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| ROW & METES & BOUNDS   |           |                 |                 |   |                 |                  |                          |              |          | \$ 5,660.00               |
| SUB CONSULTANT COORDINATION  |           |                 |                 |   |                 |                  |                          |              |          | \$ 566.00                 |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 6,226.00               |
| <b>SUB CONSULTANT SERVICES</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>TITLE SEARCH</b>  |           |                 |                 |   |                 |                  |                          |              |          |                           |
| TITLE SEARCH   |           |                 |                 |   |                 |                  |                          |              |          | \$ 1,600.00               |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 1,760.00               |
| <b>SUB CONSULTANT SERVICES</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>GEOTECHNICAL SERVICES</b>   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| GEOTECHNICAL SERVICES  |           |                 |                 |   |                 |                  |                          |              |          | \$ 25,463.00              |
| SUB CONSULTANT COORDINATION  |           |                 |                 |   |                 |                  |                          |              |          | \$ 2,546.30               |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 28,009.30              |
| <b>SUB CONSULTANT SERVICES (OPTIONAL ADDITIONAL)</b>                   |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>INSTRUMENTATION &amp; CONTROLS</b>                                  |           |                 |                 |   |                 |                  |                          |              |          |                           |
| INSTRUMENTATION & CONTROLS SERVICES                                    |           |                 |                 |   |                 |                  |                          |              |          | \$ 28,000.00              |
| SUB CONSULTANT COORDINATION  |           |                 |                 |   |                 |                  |                          |              |          | \$ 2,800.00               |
| <b>TOTAL</b>   |           |                 |                 |   |                 |                  |                          |              |          | \$ 30,800.00              |

Chimney Rock Road from FM2234 to Rosa Parks Elementary School  
Fort Bend Mobility Bond 2013; Project Number 13203

| TASK DESCRIPTION                                       | Principal  | Project Manager | Senior Engineer | Sen. Hyd. Engineer or Structural Engineer | Design Engineer | Senior Designer/ | CADD Operator/ Technician | QA/QC Review | Clerical | Total Labor Hours & Costs |
|--|------------|-----------------|-----------------|---|-----------------|------------------|---------------------------|--------------|----------|---------------------------|
| <b>SUB CONSULTANT SERVICES (OPTIONAL ADDITIONAL)</b>   |            |                 |                 |   |                 |                  |                           |              |          |                           |
| <b>PUMP STATION STRUCTURAL SERVICES</b>                |            |                 |                 |   |                 |                  |                           |              |          |                           |
| DEEPEN STRUCTURE TO 15 FEET                            |            |                 |                 |   |                 |                  |                           |              |          | \$ 10,000.00              |
| EXPAND STRUCTURE TO HOUSE 1 ADDITIONAL PUMPS           |            |                 |                 |   |                 |                  |                           |              |          | \$ 10,000.00              |
| SUB CONSULTANT COORDINATION                            |            |                 |                 |   |                 |                  |                           |              |          | \$ 2,000.00               |
| <b>TOTAL</b>   |            |                 |                 |   |                 |                  |                           |              |          | \$ 22,000.00              |
| <b>BASIC SERVICES PHASE II</b>                         |            |                 |                 |   |                 |                  |                           |              |          |                           |
| <b>FIELD VISIT / COORDINATION / MEETINGS</b>           |            |                 |                 |   |                 |                  |                           |              |          |                           |
| Design coordination meetings with developer            | 4          | 80              |                 |   |                 |                  |                           |              |          |                           |
| Design coordination meetings with client               | 4          | 40              |                 |   |                 |                  |                           |              | 8        |                           |
| Submittals at 95% and Final                            |            | 8               | 16              |   | 16              | 16               | 4                         |              | 8        |                           |
| Preliminary ROW Investigation                          |            |                 |                 |   |                 |                  |                           |              |          |                           |
| Pipeline Coordination                                  |            |                 |                 |   |                 |                  |                           |              |          |                           |
| Progress Meetings                                      |            |                 |                 |   |                 |                  |                           |              |          |                           |
| HOURS SUB-TOTALS                                       | 8          | 128             | 16              | 0   | 16              | 16               | 4                         | 0            | 16       | 204                       |
| LABOR RATE PER HOUR                                    | \$85.00    | \$70.00         | \$60.00         | \$50.00                                   | \$35.00         | \$40.00          | \$33.00                   | \$60.00      | \$20.00  |                           |
| DIRECT LABOR COSTS                                     | \$680.00   | \$8,960.00      | \$960.00        | \$0.00                                    | \$560.00        | \$640.00         | \$132.00                  | \$0.00       | \$320.00 | \$ 12,252.00              |
| JOB MULTIPLIER   | 3          | 3               | 3               | 3   | 3               | 3                | 3                         | 3            | 3        |                           |
| TOTAL LABOR COSTS                                      | \$2,040.00 | \$26,880.00     | \$2,880.00      | \$0.00                                    | \$1,680.00      | \$1,920.00       | \$396.00                  | \$0.00       | \$960.00 | \$ 36,756.00              |
| <b>TOTAL</b>   |            |                 |                 |   |                 |                  |                           |              |          | \$ 36,756.00              |
| <b>BASIC SERVICES PHASE II</b>                         |            |                 |                 |   |                 |                  |                           |              |          |                           |
| <b>DESIGN PLANS</b>                                    |            |                 |                 |   |                 |                  |                           |              |          |                           |
| COVER, GENERAL NOTES, INDEX, SHEET NUMBERING           | 0          | 2               | 0               |   | 0               | 8                | 0                         |              |          |                           |
| PROJECT LAYOUT MAP                                     |            | 1               |                 |   | 0               | 4                |                           |              |          |                           |
| TYPICAL SECTIONS                                       |            | 2               | 2               |   | 8               | 2                | 16                        | 0            |          |                           |
| SURVEY LAYOUT CONTROL                                  |            | 1               | 1               |   | 0               | 4                |                           |              |          |                           |
| ROW MAP LAYOUT   |            | 1               | 0               |   | 0               | 2                | 0                         |              |          |                           |
| DRAINAGE AREA MAPS & CALCULATIONS (PREPARED BY OTHERS) |            | 1               | 1               |   | 0               | 4                |                           |              |          |                           |
| TRAFFIC CONTROL PLANS                                  |            | 1               |                 |   |                 | 4                |                           |              |          |                           |
| PAVEMENT MARKINGS                                      |            | 1               |                 |   |                 | 4                |                           |              |          |                           |
| QUANTITIES & ESTIMATES                                 |            | 4               | 36              |   | 24              | 8                | 0                         | 4            |          |                           |
| REVISE ROADWAY PLAN AND PROFILES                       |            | 12              | 54              |   | 80              | 16               | 148                       | 4            |          |                           |
| DETENTION BASIN DESIGN                                 |            | 16              | 40              |   | 80              | 12               | 120                       | 4            |          |                           |
| DETENTION BASIN SECTIONS                               |            | 1               | 4               |   | 8               | 1                | 24                        | 1            |          |                           |
| INLET & OUTLET STRUCTURES                              |            | 4               | 16              |   | 40              | 4                | 48                        | 2            |          |                           |

Chimney Rock Road from FM2234 to Rosa Parks Elementary School  
 Fort Bend Mobility Bond 2013: Project Number 13203

| TASK DESCRIPTION  | Principal | Project Manager | Senior Engineer | Sen. Hyd. Engineer or Structural Engineer | Design Engineer | Senior Designer/ | CADD Operator/Technician | QA/QC Review | Clerical | Total Labor Hours & Costs |
|---|-----------|-----------------|-----------------|---|-----------------|------------------|--------------------------|--------------|----------|---------------------------|
| 10X10 BOX P&P   |           | 4               | 16              |   | 48              | 4                | 60                       | 2            |          |                           |
| SWPPP   |           | 1               | 0               |   | 4               | 0                | 8                        |              |          |                           |
| CLEARING AND GRUBBING                                       |           | 1               |                 |   |                 | 4                |                          |              |          |                           |
| GROSS SECTIONS  |           | 2               | 10              |   | 24              | 8                | 72                       |              |          |                           |
| HOURS SUB-TOTALS  | 0         | 55              | 178             | 0   | 316             | 89               | 496                      | 17           | 0        | 1,151                     |
| LABOR RATE PER HOUR   | \$85.00   | \$70.00         | \$60.00         | \$50.00                                   | \$35.00         | \$40.00          | \$33.00                  | \$60.00      | \$20.00  |                           |
| DIRECT LABOR COSTS  | \$0.00    | \$3,850.00      | \$10,680.00     | \$0.00                                    | \$11,060.00     | \$3,560.00       | \$16,368.00              | \$1,020.00   | \$0.00   | \$ 46,538.00              |
| JOB MULTIPLIER  | 3         | 3               | 3               | 3   | 3               | 3                | 3                        | 3            | 3        | \$ 27.00                  |
| TOTAL LABOR COSTS   | \$0.00    | \$11,550.00     | \$32,040.00     | \$0.00                                    | \$33,180.00     | \$10,680.00      | \$49,104.00              | \$3,060.00   | \$0.00   | \$ 139,614.00             |
| <b>TOTAL</b>  |           |                 |                 |   |                 |                  |                          |              |          | <b>\$ 139,614.00</b>      |
| <b>BASIC SERVICES PHASE II</b>                              |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>PROJECT MANUAL, SPECIFICATION OUTLINE &amp; BID FORM</b> |           |                 |                 |   |                 |                  |                          |              |          |                           |
| HOURS SUB-TOTALS  | 1         | 16              | 24              | 0   | 24              | 0                | 0                        | 0            | 8        | 73                        |
| LABOR RATE PER HOUR   | \$85.00   | \$70.00         | \$60.00         | \$50.00                                   | \$35.00         | \$40.00          | \$33.00                  | \$60.00      | \$20.00  |                           |
| DIRECT LABOR COSTS  | \$85.00   | \$1,120.00      | \$1,440.00      | \$0.00                                    | \$840.00        | \$0.00           | \$0.00                   | \$0.00       | \$160.00 | \$ 3,645.00               |
| JOB MULTIPLIER  | 3         | 3               | 3               | 3   | 3               | 3                | 3                        | 3            | 3        |                           |
| TOTAL LABOR COSTS   | \$255.00  | \$3,360.00      | \$4,320.00      | \$0.00                                    | \$2,520.00      | \$0.00           | \$0.00                   | \$0.00       | \$480.00 | \$ 10,935.00              |
| <b>TOTAL</b>  |           |                 |                 |   |                 |                  |                          |              |          | <b>\$ 10,935.00</b>       |
| <b>BASIC SERVICES PHASE II</b>                              |           |                 |                 |   |                 |                  |                          |              |          |                           |
| <b>SUBMITTALS AT 95% AND FINAL</b>                          |           |                 |                 |   |                 |                  |                          |              |          |                           |
| HOURS SUB-TOTALS  |           | 8               | 16              |   | 16              | 16               | 4                        |              | 8        | 68                        |
| LABOR RATE PER HOUR   | \$85.00   | \$70.00         | \$60.00         | \$50.00                                   | \$35.00         | \$40.00          | \$33.00                  | \$60.00      | \$20.00  |                           |
| DIRECT LABOR COSTS  | \$0.00    | \$560.00        | \$960.00        | \$0.00                                    | \$560.00        | \$640.00         | \$132.00                 | \$0.00       | \$160.00 | \$ 3,012.00               |
| JOB MULTIPLIER  | 3         | 3               | 3               | 3   | 3               | 3                | 3                        | 3            | 3        |                           |
| TOTAL LABOR COSTS   | \$0.00    | \$1,680.00      | \$2,880.00      | \$0.00                                    | \$1,680.00      | \$1,920.00       | \$396.00                 | \$0.00       | \$480.00 | \$ 9,036.00               |
| <b>TOTAL</b>  |           |                 |                 |   |                 |                  |                          |              |          | <b>\$ 9,036.00</b>        |

Chimney Rock Road from FM2234 to Rosa Parks Elementary School  
 Fort Bend Mobility Bond 2013: Project Number 13203

| TASK DESCRIPTION                         | Principal | Project Manager | Senior Engineer | Sen. Hyd. Engineer or Structural Engineer | Design Engineer | Senior Designer/ | CADD Operator/ Technician | QA/QC Review | Clerical | Total Labor Hours & Costs |
|--|-----------|-----------------|-----------------|---|-----------------|------------------|---------------------------|--------------|----------|---------------------------|
| <b>PROJECT TOTALS</b>                    |           |                 |                 |   |                 |                  |                           |              |          |                           |
| SUB CONSULTANTS                          |           |                 |                 |   |                 |                  |                           |              |          | \$ 95,477.80              |
| FINAL DESIGN                             |           |                 |                 |   |                 |                  |                           |              |          | \$ 196,341.00             |
| ENGINEERING SERVICES DURING CONSTRUCTION |           |                 |                 |   |                 |                  |                           |              |          | \$ 30,000.00              |
| <b>TOTAL ALL SERVICES</b>                |           |                 |                 |   |                 |                  |                           |              |          | \$ 321,818.80             |

**TEJAS SURVEYING**  
**A Pedraza Surveying, LLC Company.**

Firm No. 10194739  
1810 First Oaks St., Suite 220  
Richmond, TX 77406

January 30, 2023

Mr. Michael Bagstad, P.E.  
Zarinkelk Engineering Services, Inc.  
617 Caroline St.  
Houston, Texas 77002

Dear Michael;

We hereby propose to provide the following services in accordance with the specifications set forth for an amount of THIRTEEN THOUSAND THREE HUNDRED THIRTY-FIVE AND NO/100 DOLLARS (\$13,335.00):

Provide additional surveying and mapping as required on the Fort Bend County Mobility Project Chimney Rock Road, in connection with the proposed Chimney Rock Changes detailed January 25, 2023 to produce the following deliverables:

1. Provide additional fifty feet of topo on the north bank of the existing pond area, and along the route designated as a fifty-foot wide drainage easement for two 10' x 10' RCP from the existing Chimney Rock Road right-of-way to the original pond. Prepare two metes and bounds descriptions for the additional easement areas to be acquired. Unit Cost \$2,250.00
2. Provide topographic elevations and a metes and bounds description of the area designated for an additional detention pond on the west side of the existing Chimney Rock Road right-of-way. Unit Cost \$3,825.00
3. Prepare a revised ROW and two Parcel Sketches with Metes and Bounds description for the expansion of the Chimney Rock Road right-of-way at FM 2234. Unit Cost \$5,660.00
4. Limited title search for ownership and easements for parcels described above, based on \$400 per parcel. Unit Cost \$1,600.00

Pipeline probes are not included within the scope of work. If needed, pipeline probes will be requested of the pipeline operator, probed by the pipeline operator, and recorded by the surveyor at an additional expense of \$750 per pipeline probe/operator. Expenses incurred from the pipeline operators, if any, will also be an additional expense, to be invoiced as a reimbursable cost. No pipeline probes will be initiated with a request for approval of the additional expenses.

Please allow thirty days for the preparation of the documents once written authorization to proceed has been granted. This includes time to have the abstracting performed on the additional tract. Payment shall be due and payable upon completion, within 60 days of receipt of invoice for same.

Respectfully submitted:

Accepted by CLIENT:

\_\_\_\_\_  
Randy S. McClendon, RPLS  
Sr. Vice-President

\_\_\_\_\_  
By:  
Title:  
Dated: \_\_\_\_\_



# **GEOTEST ENGINEERING, INC.**

*Geotechnical Engineers & Materials Testing*

5600 Bintliff Drive

Houston, Texas 77036

Telephone: (713) 266-0588

Fax: (713) 266-2977

**Proposal No. 1140608699**

January 30, 2023

Mr. Michael J. Bagstad, P.E., F.SAME  
Zarinkelk Engineering Services, Inc.  
617 Caroline Street,  
Houston, Texas 77002

**Re: Chimney Rock Road Extension - Additional Geotechnical Investigation for  
Proposed Detention Pond along Chimney Rock Road  
Houston, Texas**

Dear Mr. Bagstad:

In response to your request on January 26, 2023, Geotest Engineering, Inc. (Geotest) is pleased to submit this proposal for additional geotechnical engineering services for the referenced project. The Chimney Rock Boulevard extension project now includes the expanding the detention basin on the east side (approximately 50 feet), of proposed Chimney Rock Boulevard and adding a new detention pond to the west side of the proposed roadway alignment in Fort Bend County, Texas. Based on the provided information, the proposed detention pond on the east side is approximately 27.2 acres in area and 15 feet deep, and the detention pond on the west side is approximately 4.9 acres in area, and 14 feet deep.

## Purpose and Scope

The purpose of this study is to evaluate existing general soil and groundwater conditions in the proposed detention pond areas. The specific scope of services is based on information provided in your email on January 26, 2023, and consists the following-

- obtaining utilities clearance for the proposed boring locations. It includes:
  - calling Lone Star One Call referencing with street name and Key Map block number and
  - mark the boring locations and coordinate with representatives of utility companies to clear the marked boring locations.

- Drilling and Sampling:

- Detention Pond East Side of Chimney Rock Alignment

- Deepen the previously drilled two (2) soil borings (GB-22 and GB-23) by augering to original depth of 15 feet and then sample from 15 feet to 30 feet;
    - Three (3) new borings to a depth of 30 feet each.

- Detention Pond (New) West Side of Chimney Rock Alignment

- four (4) new soil borings each to a depth of 25 feet;
    - install one (1) 25-foot piezometer to monitor long term groundwater levels.

The borings will be drilled with a marsh buggy mounted drilling rig and sampled in accordance with Fort Bend County Drainage District (FBDD) guidelines. *The proposed boring/piezometer program is shown on Attachment No. 1 and also shown on Figure 1, Plan of Borings.*

- Grouting all boreholes, except the piezometers, using non-shrink cement bentonite grout after completion of drilling and water level measurements. The use of cement bentonite grout will eliminate the potential problems and safety hazards associated with surface settlements that might occur if boreholes are backfilled with soil cuttings.
  - performing appropriate laboratory tests, including consolidated undrained triaxial tests with pore pressure measurements, on selected soil samples to evaluate pertinent geotechnical engineering properties of the soils including dispersive characteristics.
  - performing engineering analyses in accordance with Fort Bend County Drainage District (FBDD) guidelines to develop geotechnical recommendations for the design of the detention ponds. The recommendations as minimum will include the safe side slopes for the detention ponds, dispersive characteristics of slope soils, excavation stability and ground water control during construction of the ponds.
  - Revise GEI Report No. 1140213102 dated September 17, 2020, to include the additional findings and recommendations in accordance with FBDD Guidelines as outlined above.

*We understand that you or your surveyors will tie-in and provide survey information (grid coordinates, and ground surface elevations) at the drilled boring locations.*

Schedule and Fees

We should be able to start field work one (1) week after receiving your written authorization or the right of entry at the proposed boring location, whichever is later. The field work will be completed in about one (1) week, barring bad weather. The laboratory tests will be completed in about four (4) weeks. The complete geotechnical report, which will include field and laboratory data and design recommendations, will be submitted in about ten (10) weeks after receiving the written authorization.

Based on the scope of work outlined above, the cost of the field investigation, laboratory testing, engineering analyses, and a final complete geotechnical report will be a lump sum amount of \$25,463.00. The cost breakdown given in Attachment No. 2 is for information only. The invoices will be billed on Lump Sum basis based on percent completion, and this cost is based on the assumption that no site clearance will be required.

We appreciate the opportunity to submit this proposal. Formal authorization is required for our services. This may be provided by signing in the space provided below and returning one copy for our files.

Very truly yours,  
GEOTEST ENGINEERING, INC.



Mohan Ballagere, P.E.  
Vice President

MB\kmp\ego  
Copies Submitted: (1-PDF)  
Enclosures: Attachment No. 1 – Proposed Boring Program  
Attachment No. 2 – Cost Breakdown  
Figure 1 – Proposed Plan of Borings  
PC38\Geotechnical\Proposals\40608699.DOC

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

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

TITLE: \_\_\_\_\_

DATE: \_\_\_\_\_

Geotechnical Investigation  
 Chimney Rock Road Extension - Additional Geotechnical Investigation for  
 Proposed Detention Pond along Chimney Rock Road  
 Houston, Texas

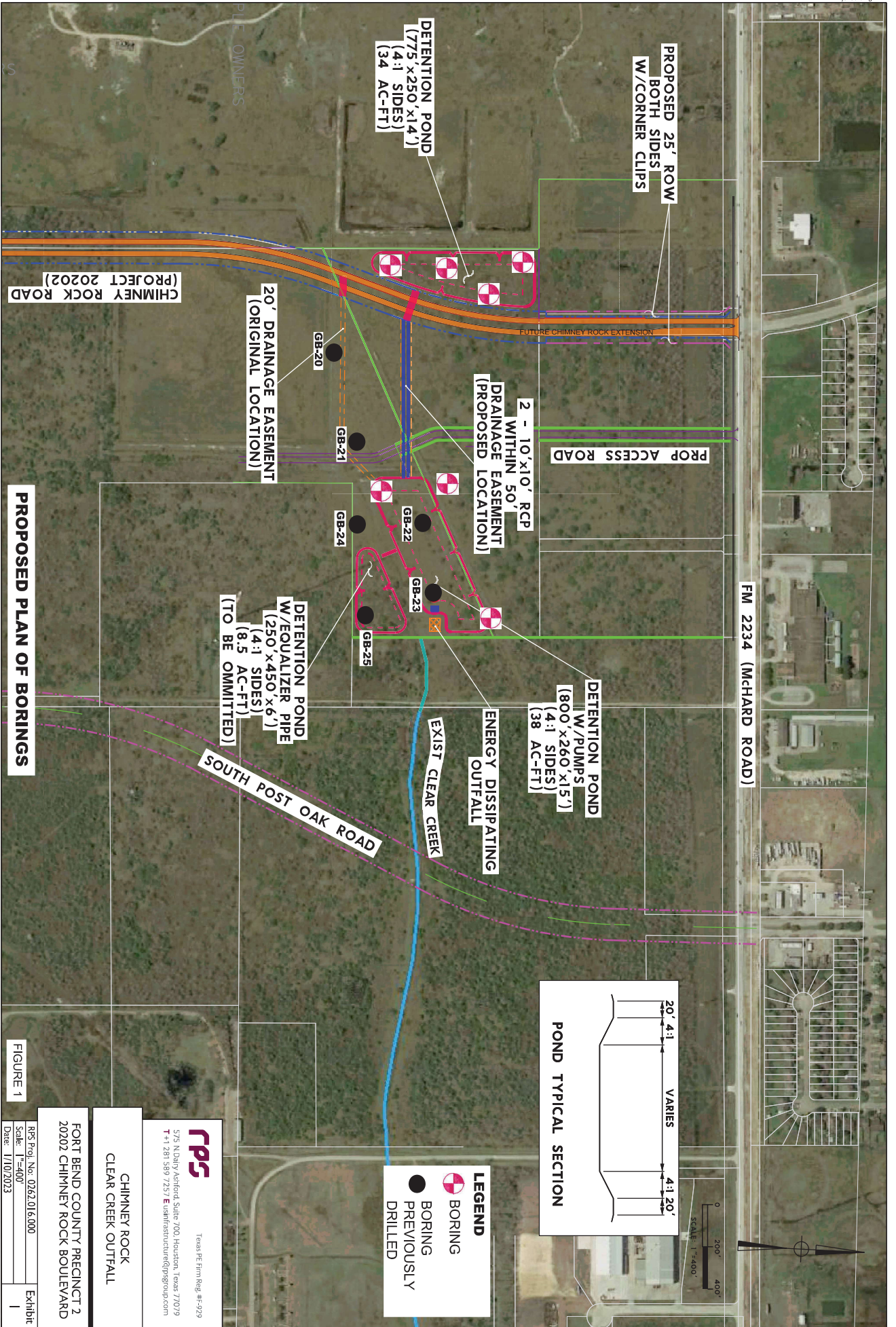
Proposal No. 1140608699

**Attachment No. 1  
 PROPOSED BORING/PIEZOMETER PROGRAM**

| Structure Type                                 | Number   | Auger Depth to Previously Drilled, (15 feet deep) | Proposed Boring |                      |            | Total Sampling Footage (feet) | Piezometer Borings |              |                |
|--|----------|---|-----------------|----------------------|------------|-------------------------------|--------------------|--------------|----------------|
|  |          |   | 15 to 30 feet   | below existing grade |            |                               | Number             | Depth (feet) | Footage (feet) |
| Detention Pond-East<br>(5.7 ac., 15 feet deep) | 2        | 15  | 15              |                      | 30         |                               |                    |              |                |
|  | 3        |   |                 | 30                   | 90         |                               |                    |              |                |
| Detention Pond-West<br>(4.5 ac., 14 feet deep) | 4        |   |                 | 25                   | 100        | 1                             | 25                 | 25           |                |
| <b>Total</b>                                   | <b>9</b> | <b>30</b>   |                 |                      | <b>220</b> | <b>1</b>                      |                    | <b>25</b>    |                |

**Attachment No. 2  
 COST BREAKDOWN**

|   | <u>QUANTITY</u> | <u>UNIT RATE</u> | <u>COST</u>        |
|---|-----------------|------------------|--------------------|
| <b>Engineering Services</b>   |                 |                  |                    |
| Principal, P.E.   | 2.00 hrs.       | \$210.00         | \$420.00           |
| Sr Engineer   | 8.00 hrs.       | \$150.00         | \$1,200.00         |
| Project Engineer  | 16.00 hrs.      | \$105.00         | \$1,680.00         |
| Staff Engineer  | 40.00 hrs.      | \$83.00          | \$3,320.00         |
| Support Personnel (Drafting, Word Processing)   | 8.00 hrs.       | \$60.00          | \$480.00           |
|   |                 | Subtotal         | <b>\$7,100.00</b>  |
| <b>Direct Expenses</b>  |                 |                  |                    |
| <b>Subsurface Field Investigation</b>   |                 |                  |                    |
| Mobilization/Demobilization of Buggy Mounted Drill Rig and Crew                                       | 1 ea.           | \$400.00         | \$400.00           |
| ATV Mobilization Surcharge  | 1 ea.           | \$132.00         | \$132.00           |
| Drilling and Continuous Sampling, Truck Mounted Rig, from 0 to 20 feet                                | 220 ft.         | \$21.00          | \$4,620.00         |
| Auger Boring  | 30 ft.          | \$12.00          | \$360.00           |
| Grouting of Completed Bore Holes  | 225 ft.         | \$9.00           | \$2,025.00         |
| Field Coordination and Utility Clearance for Boring Locations   | 16 hrs.         | \$65.00          | \$1,040.00         |
| Piezometer Installation   | 25 ft.          | \$18.00          | \$450.00           |
| ATV Surcharge for Drilling  | 250 ft.         | \$7.00           | \$1,750.00         |
| Water Level Readings in piezometer (24 hr and 30 day)   | 4 hr.           | \$80.00          | \$320.00           |
| Abandonment of Piezometer   | 25 ft.          | \$16.00          | \$400.00           |
|   | 20 hrs.         | \$10.00          | \$200.00           |
|   |                 | Subtotal         | <b>\$11,697.00</b> |
| <b>Laboratory Tests</b>   |                 |                  |                    |
| Liquid and Plastic Limits   | 22 ea.          | \$60.00          | \$1,320.00         |
| Moisture Content  | 87 ea.          | \$9.00           | \$783.00           |
| Percent Passing No. 200 Sieve   | 18 ea.          | \$46.00          | \$828.00           |
| Sieve Analysis through No. 200 Sieve  | 4 ea.           | \$55.00          | \$220.00           |
| Specific Gravity of Soil  | 1 ea.           | \$58.00          | \$58.00            |
| Unconfined Compression Strength Test  | 11 ea.          | \$44.00          | \$484.00           |
| Unconsolidated-Undrained Triaxial Compressive Strength, per Specimen or Stage                         | 11 ea.          | \$61.00          | \$671.00           |
| <i>Crumb Test (to determine erosion characteristics of channel embankment soils)</i>                  | 4 ea.           | \$37.00          | \$148.00           |
| <i>Double Hydrometer</i>  | 2 ea.           | \$177.00         | \$354.00           |
| <i>Triaxial CU Test includes Back Pressure Saturation and Pore Pressure Measurements, 3 Specimens</i> | 1 ea.           | \$1,800.00       | \$1,800.00         |
|   |                 | Subtotal         | <b>\$6,666.00</b>  |
|   | <b>Total</b>    |                  | <b>\$25,463.00</b> |



**PROPOSED PLAN OF BORINGS**

FIGURE 1

**rps**  
Texas PE Firm Reg #1-929  
575 N Dairy Ashford, Suite 700, Houston, Texas 77079  
T +1 281 589 7257 E us@infrastructuregroup.com

**CHIMNEY ROCK  
CLEAR CREEK OUTFALL**

**FORT BEND COUNTY PRECINCT 2  
20202 CHIMNEY ROCK BOULEVARD**

RPS Proj. No: 0262.016.000  
Scale: 1"=400'  
Date: 1/10/2023

Exhibit 1



**WJ INTERNATIONAL ENVIRONMENTAL SERVICES, INC**

Partners for your Water & Wastewater Solutions

February 8, 2023

Mike Bagstad, P.E.  
Zarinkelk Engineering Services, Inc.  
617 Carline St.  
Houston, Texas, 77002

Re: Electrical design change for Fort Bend County Storm Water Pump

Station

Dear Mike,

Thank you for the opportunity to propose on the above project.

Please review the following brief changes to the design of project.

Electrical Engineering, Control design and Construction services for Four (4) 125 HP Submersible pumps (previously 3 pumps) and their respective level controls. The Station shall provide Pumping and Control of a Detention water facility. The design change shall consist of the minimum following:

- Level Controls "Ultrasonic" type for operation
- Float controls for backup
- Both mounted in stilling wells
- Motor Control Center (M.C.C.) NEMA 3R (pad mounted in lieu of weatherhead) Pad size will be increased. The service will now have to be from a new "Pad Mount" source per CenterPoint Standards. Including an empty conduit Primary Service feed from a "Center Point" High Voltage source (~12kv).
- Auto Sensory Panel (A.S.P.) in MCC
- 120v panel local control built into MCC with security photo cell light.
- Hoist Crane Control
- Manual transfer Switch (M.T.S.) with ability to connect a portable generator.
- Approximately 1200 Ampere 480V/277V 3Phase 4w electrical service (furnished by center point) with a primary feeder.
- Auto dialer and a blinking light on MCC

The design fee for the above would be \$ 28,0000.00

Should you have questions please feel free to call.

Sincerely,

  
Ali Khairandish, P.E.

WJ international environmental Services, Inc. 4600

S. Wayside Dr.

Houston, Tx. 77087

713/499-0700

[www.wiieservices.com](http://www.wiieservices.com) [admin@w:environmental.com](mailto:admin@w:environmental.com)

4600 S. Wayside Dr., Houston, TX 77087

Phone: 832-968-4535 (office)



February 6, 2023

Mr. Michael J. Bagstad, P.E.  
Zarinkelk Engineering Services  
617 Caroline Street  
Houston, TX 77002

**Re: Supplemental Letter Agreement for Subcontract Agreement for Structural Plans for Chimney Rock Detention Basin Outfall Discharge Pump Station- Supplemental 1**

Dear Mr. Bagstad:

Thank you for your request to provide engineering services for structural design of Chimney Rock Detention Basin Outfall Discharge Pump Station. Below you will find our supplemental proposed scope, fee, and schedule for our services. This Supplemental Letter Agreement is pursuant to the Subconsultant Agreement between Zarinkelk Engineering Services (Engineer) and Aguirre & Fields (Subconsultant).

Terms of this agreement are as follows:

I. Scope of Work

- Option 1: Revise structural plans and details to deepen pump station for increased depth of detention pond to 15 feet
- Option 2: Revise structural plans and details to house an additional pump

II. Information Required by Engineer

- Survey Data – existing ground TIN, utility locations (if needed)
- CADD – proposed pump station plan and elevation

III. Proposed Fee

- A. Design Phase Services will be provided on a *lump sum* basis for the following amount:

Option1: \$10,000  
Option 2: \$10,000  
Total: \$20,000

- B. Construction Phase Services shall be provided on a *time and materials* basis, not to exceed \$6,000, per the rates listed below:

- Project Manager \$200.00 /hr
- Sr. Bridge Engineer \$190.00 /hr
- Bridge Engineer \$174.00 /hr
- Engineer-in-Training \$ 105.00 /hr

**AGUIRRE & FIELDS**

7215 New Territory Blvd., Suite 100 • Sugar Land, Texas 77479

February 6, 2023

Page 2 of 2

- CAD Technician \$ 90.00 /hr
- Administrative \$ 75.00 /hr
- Direct Expenses Actual cost plus 5%

IV. Schedule

- a. Preliminary Pump Station Plan and Elevation – 5 weeks
- b. Final Plan, Elevation and Details – 4 weeks

Thank you for the opportunity to assist Zarinkelk Engineering Services. Should you have any questions, please do not hesitate to contact us at your convenience.

Sincerely,

*Mahsa Arastoo*

Mahsa Arastoo, P.E.

Aguirre & Fields, LP  
Aguirre, LLC – General Partner

Client:  
Zarinkelk Engineering Services

  
\_\_\_\_\_  
Oscar R. Aguirre  
President

\_\_\_\_\_  
Mr. Michael Bagstad, P.E.

2/6/2023  
\_\_\_\_\_  
Date

\_\_\_\_\_  
Date