

October 9, 2023  
Proposal No.: P23-0921CR

Ms. Patricia L. Jackson, P.E. – Facilities Construction Manager  
City of McKinney  
221 N. Tennessee Street  
McKinney, Texas 75069

**Subject: Construction Materials Testing Services  
City of McKinney Fire Department Headquarters  
McKinney, Texas**

Dear Ms. Jackson,

Alliance Geotechnical Group (Alliance) is pleased to submit this proposal for construction materials testing for the above referenced project. We understand we have been selected based on the Professional Services Procurement Act.

## **PROJECT INFORMATION**

Based on our review of the project plans, specifications, and geotechnical report, we understand that the project will consist of the following:

- ◆ Buildings
  - ◆ Fire Station #2 will be approximately 16,500 square feet in area, and will be supported by drilled shaft foundations in conjunction with a slab on grade floor system. The building will also include steel framing and CMU wall construction
  - ◆ The Fire Administration Building will be approximately 40,000 square feet in area, and will be supported by drilled shaft foundations in conjunction with a slab on grade floor system. The building will also include steel framing and CMU wall construction
  - ◆ The Logistics Building will be approximately 20,000 square feet in area, and will be supported by drilled shaft foundations in conjunction with a slab on grade floor system. The building will also include steel framing and CMU wall construction
- ◆ Paving and Utilities:
  - ◆ Parking lot and fire lanes with lime treated and re-compacted paving subgrade
  - ◆ Various site utilities.

## SCOPE OF SERVICES

The following scope of services is based on our review of project documents provided by the client, and a preliminary construction schedule provided by Pogue Construction, and is limited to providing testing and/or observations for the previously mentioned construction. **We do request that your construction representative provide us with a 24-hour notice for scheduling purposes.** As such, we agree to provide the appropriate personnel to perform the below construction materials services.

### Inspections and Testing for Earthwork (building pads, pavement subgrade, utility backfill, etc.)

- Obtain and perform laboratory moisture/density relations (ASTM D698/D1557/D558, TEX-113-E, TEX-114-E) and soil classification tests (liquid limit, plastic limit and percent finer than no. 200 sieve analysis) for each soil type
- Perform in-place moisture/density tests at the rate of 1/ 5,000 square feet for paving areas, 1/2,500 square feet for building areas, 1/ 5,000 square feet for select fill, 1/300 linear feet for utilities, with a minimum of 2 tests per lift per area. AGG will also sample imported building pad select fill at a rate of 1/5,000 square feet to verify compliance with project Plasticity Index (PI) requirements.

### Drilled Pier Foundations

- AGG shall observe the installation of all drilled pier foundations, and record all information as follows:
  - Information to include depth of the grade at the time of drilling, and depth for the bottom of steel casing, when casing is used
  - Pier diameter
  - Identification of bearing strata and depth
  - Penetration into bearing stratum
  - Whether casing is required
  - Reinforcing steel cage observations
  - Accuracy of pier location, plumbness, and cleanliness
  - Provide Drilled Pier Observation Reports documenting daily drilling activities

### Inspections and Testing for Concrete Construction

- Perform reinforcing steel inspection prior to concrete placement (generally the same day unless scope of pour deemed too large by AGG) for conformance with project plans and reviewed shop drawings
- During concrete pours, for each intended use, AGG shall sample concrete from the first concrete truck on each day of concrete pouring and a minimum of one truck every 100-150 cubic yards thereafter.
- Perform testing and inspections during concrete placements, which will include:
  - collect a sample in accordance with ASTM C172
  - perform slump test in accordance with ASTM C143
  - perform air content test in accordance with ASTM C231 or ASTM C173
  - perform unit weight test in accordance with ASTM C138
  - record concrete temperature in accordance with ASTM C1064



- cast cylinders molded and standard-cured in accordance with ASTM C31; either four 6" x 12" or five 4" x 8" (additional cylinders have been budgeted for early to account for early break requests by the contractor)
- perform compression testing in accordance with ASTM C39

#### Inspections and Testing for Masonry Construction (Including Storm Shelter)

- Perform testing for structural masonry work, which will include:
  - During the first day of masonry work, AGG to observe mason mixing first batches of mortar and grout, verifying:
    - Ingredients consistent with reviewed mix submittals
    - Volumetric proportions are consistent with the reviewed mix submittals (if applicable)
    - Containers of known volume are used when batching (if applicable)
    - Once every 5,000 square feet of structural masonry construction:
      - Inspect horizontal and vertical reinforcing
      - Inspect grout spaces
      - Sample grout and fabricate a set of six (6) grout prisms and test in accordance with ASTM C1019
      - Perform slump determination
      - Sample mortar and fabricate a set of six (6) cubes and test in accordance with ASTM 780, as requested by the contractor and/or client. ***It should be noted that in accordance with ASTM C270, compressive strength results of mortar cubes obtained during construction are for information purposes only, and should not be used for acceptance.***

#### Inspections and Testing for Steel Construction

- Verification of welder qualifications
- Inspection of structural steel members
- Visual weld inspection as required by the project documents
- Ultrasonic Testing as required by the project documents
- Structural bolts and anchor inspection as required by project documents

## **COMPENSATION**

While testing is dependent on the construction sequence, contractor performance and efficiency, weather conditions, and the actual testing performed, we suggest an **estimated budget of \$328,340.00**. The invoicing for this project will use the attached Fee Schedule **and the actual quantity of work performed**. The estimated budget will not be exceeded without prior approval. The City of McKinney and Alliance Geotechnical Group may subsequently agree in writing to provide for additional services to be rendered under this agreement for additional, negotiated compensation. Services provided by Alliance will be consistent with the engineering standards prevailing at the time and in the area that the work is performed; no other warranty, express or implied, is intended.

Please indicate your approval of the proposal by issuing a City of McKinney contract and/or purchase order as our notice to proceed. We appreciate the opportunity to provide you with our services. If you have any questions or wish to discuss any aspect of our proposal, please call us. Following your authorization, we are ready to begin work and look forward to a successful project.



Sincerely,  
**ALLIANCE GEOTECHNICAL GROUP**

A handwritten signature in blue ink, appearing to read 'Douglas Land', is written over the printed name.

Douglas S. Land, P.E.  
Branch Manager

Attachments: Estimated Fee Schedule  
Remarks

**Alliance Geotechnical Group  
PROJECT DATA SHEET - BUDGET  
McKinney FDHQ (P23-0921C)**

**Concrete**

1000	Concrete Technician	530.00 @	\$60.00	\$31,800.00
1001	Concrete Technician Overtime	90.00 @	\$90.00	\$8,100.00
1008	Concrete Cylinder Pick Up	35.00 @	\$225.00	\$7,875.00
1009	Concrete Cylinder Pick Up Overtime		\$337.50	\$0.00
ASTM C39	Compressive Strength of Cylindrical Concrete Specimens	1010.00 @	\$25.00	\$25,250.00

Concrete Budget: \$73,025.00

**Masonry**

1500	Masonry Inspection	354.00 @	\$70.00	\$24,780.00
1501	Masonry Inspection Overtime	62.00 @	\$105.00	\$6,510.00
ASTM C1019	Sampling and Testing Grout (Grout Prisms)	342.00 @	\$25.00	\$8,550.00
ASTM C1314	Compressive Strength of Masonry Prisms (As Needed)		\$240.00	\$0.00
ASTM C780-A6	Compressive Strength of Molded Masonry Mortar Cylinders and Cubes	168.00 @	\$25.00	\$4,200.00

Masonry Budget: \$44,040.00

**Misc**

1200	Pier Inspection	288.00 @	\$70.00	\$20,160.00
1201	Pier Inspection Overtime	144.00 @	\$105.00	\$15,120.00
1303	Geotechnical Engineer	75.00 @	\$125.00	\$9,375.00
1307	Project Manager	330.00 @	\$105.00	\$34,650.00
1322	Vehicle Trip Charge	330.00 @	\$55.00	\$18,150.00

Misc Budget: \$97,455.00

**Soils**

1400	Earthwork Inspection and Testing	570.00 @	\$70.00	\$39,900.00
1401	Earthwork Inspection and Testing Overtime	120.00 @	\$105.00	\$12,600.00
ASTM D1140	Material in Soils Finer than No. 200 Sieve	17.00 @	\$75.00	\$1,275.00
ASTM D1557	Laboratory Compaction Characteristics of Soil Using Modified Effort	2.00 @	\$235.00	\$470.00
ASTM D4318	Liquid Limit, Plastic Limit, and Plasticity Index of Soils	170.00 @	\$75.00	\$12,750.00
ASTM D6938	In-Place Density and Water Content of Soil and Soil-Aggregate by Nuclear Methods	780.00 @	\$25.00	\$19,500.00
ASTM D698	Laboratory Compaction Characteristics of Soil Using Standard Effort	15.00 @	\$195.00	\$2,925.00
Tex-101-E Pt. 3	Sieve Analysis of Road-Mixed Stabilized Material	40.00 @	\$25.00	\$1,000.00
Tex-112-E	Admixing Lime to Reduce the Plasticity Index of Soils (Lime Series)	4.00 @	\$375.00	\$1,500.00
Tex-140-E	Measuring Thickness of Pavement Layer	40.00 @	\$25.00	\$1,000.00

Soils Budget: \$92,920.00

**Steel**

1900	Structural Steel Visual Site Inspection	220.00 @	\$95.00	\$20,900.00
1903	Structural Steel Visual Inspection Overtime		\$142.50	\$0.00

Steel Budget: \$20,900.00

**Total Budget: \$328,340.00**



## REMARKS

Services and fees not listed above will be quoted on request.

The above unit prices are applicable for one year from the date of this letter and are subject to change without notice thereafter.

All field services are charged portal-to-portal, minimum charge of 2 hours per trip (rounded to the nearest whole hour) applies to all field work, U.N.O.

All reports are available on line via user log in at [www.alliancerpts.com](http://www.alliancerpts.com)

**Dispatch schedule hours are Monday-Friday from 7:00 am to 5:00 pm. Schedule call made after these hours will be returned in the order received. Please make sure to schedule work in a timely manner (a minimum of 24 hours in advance) if you want Alliance to guarantee a technician on site at the desired time. Dispatch phone number is 214-618-4100. Note: You must reference Alliance's job project number to schedule services. If project number is unknown please reference cost estimate number shown on the CMT acceptance form.**

Cancellations will be invoiced for portal to portal times as well as time spent on site awaiting determination of cancellation. This proposal does not include any technician stand-by, non-readiness charges, and/or trips or re-tests of the previous failing tests.

Overtime rates of 1.5 times the regular hourly rate will be charged for hours worked over eight (8) hours per day Monday through Friday or any time before 7:00 a.m. or after 5:00 p.m. Service performed on Saturdays and Sundays will be billed at 1.5 times the regular hourly rate. Services performed on recognized holidays will be billed at 2.0 times the regular hourly rate.

**PLEASE NOTE:** In keeping OSHA Safety regulation, Alliance Geotechnical Group employees will not enter a trench to test that is not in compliance with current OSHA regulations. Delays or cancellations caused by waiting for trench(s) to be brought into compliance will be invoiced on an hourly basis.