GEO-ENGINEERING SOLUTIONS, INC.
2570 San Ramon Valley Blvd., Suite A102
San Ramon, CA | 925-433-0450

February 8, 2022

San Leandro Unified School District
1145 Aladdin Ave
San Leandro, California 94577

Attention: Ms. Devyani Agate

Subject: ***Proposal for Geotechnical Engineering Study and Geologic Hazard Report***
McKinley Elementary School-Shade Structure
San Leandro, CA 94577
Geo-Eng Proposal No. 1081-E

Dear Ms. Agate:

Geo-Engineering Solutions Inc. (Geo-Eng) has prepared this proposal to provide geotechnical services for the proposed shade structure to be built at the McKinley Elementary School for the San Leandro Unified School District. The project consists of shade structure which will have a drilled pier foundation support system.

The McKinley Elementary School is located with a Geologic Hazard zone for liquefaction as designated by the California Geologic Survey. The design of the structure will require standard geotechnical recommendations for foundation design as well as some minor grading associated with the construction of the shade structure.

Geo-Eng completed a Geotechnical Engineering and Geologic Hazards Study for the McKinley Elementary School, dated May 30, 2018. This report was prepared in accordance with the requirements set forth in the California Geological Survey Note 48 and the 2016 California Building Code. Geo-Eng proposes to generate a new Geotechnical Engineering and Geologic Hazards Study, for the shade structure, based on the information provided in the previous investigation and the current 2019 California Building Code (CBC) and ASCE 7-16.

Based on the 2019 CBC, a site-specific ground motion hazard analysis is required for sites where seismic design parameter S_1 is 0.2g or greater, **unless the specific exception enumerated in ASCE 7-16 Chapter 11.4.8 is invoked**. The seismic design parameter S_1 for the subject site is greater than 0.2, Therefore, a site-specific ground motion analysis is required unless the above-mentioned exception is included in the project design. Based on the types of structures planned, we are assuming that this exception is being taken and we are not proposing any site-specific ground motion hazard studies. If a site-specific ground motion hazard analysis is required, we should be notified so that we may provide the appropriate seismic design parameters

Update Geohazards Report and Provide Foundation and Earthwork Recommendations

Geo-Eng will conduct a design-level Geotechnical Study for the site for the purpose of developing sufficient geotechnical information to guide foundation design and site infrastructure development at the site, which will consist of the following work scope:

Preliminary Field Activities

1) Review available geotechnical and geologic literature for the site.
2) Mark the locations of the subsurface explorations at the site and contact Underground Service Alert.
3) We are assuming that the site utilities will be located as part of a separate utility location phase of work, and we can use this location for our work as well.

Field Exploration

1) The field exploration program will consist of drilling up to 2 borings in the shade structure area at the site. The borings will range in total depth between 15 and 50 feet deep.
2) Sampling will occur in up to five-foot intervals in the borings. The soil will be sampled with a Modified California sampler fitted with six-inch long inner brass liners and a Standard Penetration Test (SPT) split spoon sampler. The relatively undisturbed liner samples will be sealed and the SPT samples will be placed in plastic bags. The samplers will be driven 18 inches with a 140-pound hammer with an approximate 30-inch drop. Blow counts for the last foot will be logged as the penetration resistance. The blow counts from the SPT sampler will be utilized to determine subsurface soil characteristics for correlation with USCS soil types. Bulk soil samples will be obtained from the upper few feet of auger cuttings in select borings.
3) The borings will be backfilled with cement grout under the supervision of an Alameda County Environmental Health Inspector. Excess drill cuttings will be spread in landscape areas which will not impact the play yard or play fields.
4) As an added option, at the District's decision, excess drill cuttings will be removed and off hauled from the site by the driller at an additional cost.

Laboratory Testing

1) Several in-situ moisture and density tests will be performed on bulk samples collected.
2) Up to two Sieve Analysis tests will be performed to determine subsurface soil characteristics of granular subsurface soils as needed for engineering analysis.
3) One to two Atterberg Limits tests will be performed to determine the expansive potential of the near surface soil.

Report Preparation

The geotechnical data generated from our field and laboratory testing program will be analyzed and used to develop conclusions and recommendations regarding geotechnical site development considerations, foundation selection and design, and geotechnical construction considerations.

1) A design-level Geotechnical Engineering Study report will be prepared and will contain a site plan showing boring locations, boring logs, subsurface cross-sections, laboratory test data, and a summary of site soil and groundwater conditions. 2019 CBC seismic design parameters and other pertinent information will be provided.
2) The report will contain but not necessarily be limited to, the following information:
    - Geotechnical considerations affecting site and building development, including undocumented fill materials; expansive soils, weak surficial soils, and potentially liquefiable soils, if encountered; and other seismic hazards such as ground shaking, and dynamic densification;

- Generalized preliminary corrosion evaluation;
- Discussion of feasible foundation support systems, as applicable;
- Specific foundation design recommendations including bearing or axial support capacities, dimensions and embedment, and lateral load resistance;
- Site grading, including site preparation, drainage and subdrainage, excavation, allowable engineered fill materials, including reuse of onsite soil materials as engineered fill; grading and fill compaction, and utility trench backfill construction.

Summary of Fees

We will perform our proposed base scope of work for services presented herein for a Lump Sum fee of **$9,500.** The following table provides a breakdown of our proposed fees for this project:

Scope Item	Amount	Fee Basis
Geotechnical Engineering Study and Geologic Hazards Report		
Planning and Coordination	$ 400.00	Lump Sum
Alameda County Environmental Permit	$ 800.00	Lump Sum
Drilling, including Geo-Eng Staff Engineer/Geologist	$4,300.00	Lump Sum
Lab Testing	$1,000.00	Lump Sum
Engineering and Geologic Analysis	$1,200.00	Lump Sum
Report Preparation	$1,800.00	Lump Sum
Total – Required Geologic Report and Geotechnical Report (each site)	**$9,500.00**	Lump Sum

Schedule

The drilling at the site will be completed in 1 day. Laboratory testing will take approximately two weeks to complete following the fieldwork. The reports can be issued within about three to four weeks after the drilling is completed. Specific design recommendations if needed by the project architect prior to submittal of our report can be provided in the form of e-mail correspondence or a project progress memorandum as the needed information is developed.

We anticipate that the services will be provided in accordance with our master services agreement with the district and a task order will be issued in accordance with the terms of our agreement. If you have any questions regarding this proposal, please contact the undersigned at eswenson@geo-eng.net or (925) 433-0450. We greatly appreciate the opportunity to provide this proposal.

Sincerely,
GEO-ENGINEERING SOLUTIONS, INC.





Nicolas Haddad, PE
Senior Geotechnical Engineer

Eric J. Swenson, GE, CEG
Principal Engineer/ Engineering Geologist

Devyani Agate, Devyani@rgmkramer.com

GEO-ENGINEERING SOLUTIONS, INC.
2570 San Ramon Valley Blvd., Suite A102
San Ramon, CA | 925-433-0450

February 15, 2022

Attention: Mr. Nick Malve

Subject: ***Proposal for Utility Locations***
McKinley Elementary School
San Leandro, CA
Geo-Eng Project No. 13-1081-F

Dear Mr. Malve

Geo-Engineering Solutions Inc. (Geo-Eng) has prepared this proposal to provide utility location services to the San Leandro Unified School District for McKinley Elementary School in San Leandro. This proposal is based on a review of plans provided by you as well as conversations and emails with you. In performing this work, we will utilize our sub-consultant, Geo-Tech Utility Locating, to assist with the location and preparation of the plans for this effort.

Scope of Work
In accordance with your request, we will field locate utility lines in accordance with the information that you have provided to us. The attached proposal includes additional details and limitations on our scope of work for this effort.

Summary of Fees
We will perform our proposed base scope of work presented herein for the following lump Sum Fee for a total of **$10,890**.

Schedule
The utility locations work will occur in Feb 2022 and will take approximately 1 day in the field and another week of report preparation to complete.

We anticipate that the services will be provided in accordance with our master services agreement with the district and a task order will be issued in accordance with the terms of our agreement. If you have any questions regarding this proposal, please contact the undersigned at eswenson@geo-eng.net or (925) 433-0450. We greatly appreciate the opportunity to provide this proposal to the San Leandro Unified School District.

Sincerely,
GEO-ENGINEERING SOLUTIONS, INC.



Eric J. Swenson, G.E., C.E.G.
Principal Engineer/ Engineering Geologist

Distribution: Mr. Nick Malve, RGM Kramer, nickm@rgmkramer.com
Ms. Devyani Agate, DevyaniA@rgmkramer.com

Attachment: Geo-Tech Locating Proposals dated 2/7/2022

GeoTech UTILITY LOCATING 460 Center Street #6873 Moraga, Ca 94570 Ph:510-235-4144 info@geotechlocating.com

QUOTATION FOR

GEO-ENGINEERING SOLUTIONS, INC.
ERIC SWENSON
2570 SAN RAMON VALLEY BLVD, SUITE A102
SAN RAMON, CA 94583

QUOTATION

Date	Quotation
2/7/2022	7056

Description	RATE
PROJECT: McKinley Elementary School 2150 E 14th St, San Leandro, CA 94577. SURVEY BOUNDARY: Locate underground utilities inside the project area as defined by information received on 02/04/2022 via e mail. The attached Google image delineates the proposed survey boundary. INTENTION: We will attempt to locate underground utilities in the survey area, but for technical reasons we cannot guarantee to do so. NOTICE USA: Contractors must call Underground Service Alert (811) 48 hours prior to any underground work. METHOD: Location of utilities will be by electromagnetic field induction. The following is a partial list of equipment typically used to locate detectable utilities: • Radio Detection 7000 transmitter w/ matched receiver • Ground Penetrating Radar (GPR) unit • Fisher TW-6 M-scope - shallow focus metal detector • 512 Hz Sonde. We will visually inspect the surrounding area for evidence of subsurface utilities or other buried features as well as review available subsurface utility drawings. Each identified utility will be investigated using active electromagnetic utility-locating instruments and its surface trace demarcated on the ground using color-coded spray paint. The performance capability of GPR is dependent on the soil electrical conductivity at the site. If the soil conductivity is high,attenuation of the radar signal in the soil can severely restrict the maximum penetration depth of the radar signal. Under favorable conditions depth of penetration can be greater than 10 feet, however, average depths of GPR penetration in the Northwest tend to range between 3-5 feet. Soils high in clay content and moisture will have higher signal attenuation. GPR surveys should be performed in the dry season if at all possible, especially at California sites. Soil moisture, especially in high-clay soils, only increases the radar attenuation rates, further limiting the radar performance. MAKE AVAILABLE: • Any existing utility drawings for the survey area. • Access to areas that require admission for the purpose of tracking and identifying the utilities such as locked utility panels and rooms. • Surface free of interference, such as large metallic objects, cars, debris, excessive vegetation etc. INCLUDES: • Metallic utilities i.e. telephone (except fiber optic), electric, gas and water. • Non-metallic utilities with tracer wire visible. • Sewer and Drain lines with minimum 4" access will be located by inserting a transmitter.	

SIGNATURE:
PAYMENT DUE 30 DAYS AFTER COMPLETION OF THIS WORK

Total

GeoTech UTILITY LOCATING 460 Center Street #6873 Moraga, Ca 94570 Ph:510-235-4144 info@geotechlocating.com

QUOTATION FOR

GEO-ENGINEERING SOLUTIONS, INC.
ERIC SWENSON
2570 SAN RAMON VALLEY BLVD, SUITE A102
SAN RAMON, CA 94583

QUOTATION

Date	Quotation
2/7/2022	7056

Description	RATE
EXCLUDES:	
• Non conductive force main lines without tracer wire visible in the project area	
• Fiber optic lines without tracer wire visible in the project area.	
• Sanitary or storm drain lines without access in the project area.	
• Transite or plastic water lines without tracer wire visible near the project area.	
• Locating inside the buildings not included.	
RESULT PRESENTATION:	
Utilities will be marked with spray paint using the American Public Works Association color code.	
• Electric ---------- Red	
• Telephone/Comm ------- Orange	
• Storm/Sanitary ---------- Green	
• Water/Air ---------- Blue	
• Gas/Steam/Oil ----------Yellow	
• Unknown pipes ---------- Pink	
PRICE:	7,950.00
Work as outlined above includes equipment , travel costs and personnel and is offered for the sum of:	
ACAD PRESENTATION:	1,950.00
Utility marks will be sketched and plotted onto an existing drawing provided by client or Google Earth Image, by layers, in the ACAD format.	

SIGNATURE:
PAYMENT DUE 30 DAYS AFTER COMPLETION OF THIS WORK

Total $9,900.00

McKinley ES

Legend

Warren Ave

Warren Ave

Warren Ave

Warren Ave

Bancroft Ave

1 Area of Refuge

McKinley Elementary School

McKinley Elementary School

Sunshine Donuts

McKinley Ct

Bancroft Ave

Grocery Outlet

Papa John's Pizza

Crystal Nails Spa

Google Earth

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200 ft

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