

February 21, 2012

Ms. Judy Lieberman  
Projects Director  
City of Albany  
1000 San Pablo Ave.  
Albany, CA 94706

**Re: Proposal  
Phase 1 – Preliminary Geotechnical Study  
City of Albany Maintenance Center / Office Facility  
in conjunction with Neighborhood Public Park and Bicycle Trail  
Albany, California**

Dear Ms. Lieberman,

A3GEO, Inc. (A3GEO) is pleased to submit this proposal to provide an initial phase of geotechnical services for the Albany Maintenance Center project. We prepared this proposal at the request of Karen Burks of Burks Toma Architects (BTA). We also had a short meeting with Karen during which we discussed project phasing, design team milestones and geotechnical approach.

## **INTRODUCTION**

The project site is located west of Albany Hill within a block roughly bounded by Pierce Street, Washington Street and Interstate 80 (I-80). Surface grades in this area generally slope down towards San Francisco Bay, the present-day shoreline of which is about 500 feet to the west of the site. The property was obtained from the California State Department of Transportation (Caltrans) and various streets, ramps, highways, and other transportation-related surface improvements previously existed at the site that have since have been demolished.

As currently envisioned, the project will include the construction of a new maintenance facility with offices and parking, a neighborhood public park, and a bicycle trail. In an initial Predesign phase, BTA and their consultants will become familiar with the project site, the Center's functional requirements and the constraints of the project. The purpose of our Phase 1 study will be to provide necessary geotechnical input to the City and the design team as planning-level concepts and cost estimates are developed.

## **PHASE 1 – SCOPE AND FEE PROPOSAL**

### **Scope of Phase 1 Services**

During Predesign, A3GEO will conduct a preliminary geotechnical investigation of the site that will augment the historical analyses performed during the pre-proposal phase. Our Phase 1 investigation will develop the site-specific data needed to check initial interpretations pertaining to geotechnical suitability, siting constraints and geotechnical cost drivers. The scope of our preliminary geotechnical study will include: 1) participating in team meetings and providing geotechnical consultation, as needed; 2) reviewing available Caltrans records pertaining to previous construction, demolition and grading at the site; 3) confirming subsurface conditions with an initial phase of borings and laboratory tests; and 4) preparing a Phase 1 Geotechnical Site Analysis report containing preliminary recommendations appropriate for Schematic Design.

We budgeted for one day of geotechnical drilling during the Predesign phase. Prior to drilling, we will notify Underground Service Alert (USA) of our intent to drill and obtain the necessary drilling permit(s). We plan to explore subsurface conditions at the site using a truck-mounted auger rig and anticipate that we can complete approximately 75 linear feet of drilling/sampling in a standard 8-hour day. On a preliminary basis, we envision drilling two 25-foot-deep borings in planned building areas and two or three shallower borings at other locations of geotechnical interest. Upon completion, the borings will be backfilled with lean cement grout in accordance with local drilling permit requirements. We will also perform an initial phase of geotechnical laboratory tests to evaluate soil expansion potential and other key

parameters affecting planning-level concepts and cost estimates. A breakdown of investigative scope items is presented on the attached scope and fee estimate spreadsheet.

The primary objectives of our Phase 1 investigations will be to: 1) develop site-specific geotechnical data to guide planning process; and 2) confirm that the planning-level concepts and cost estimates developed in Predesign are appropriate for the subsurface conditions present. Our Phase 1 Geotechnical Site Analysis Report will include a site plan showing the locations of our onsite investigations, logs of the test borings, laboratory test data as well as descriptions, conclusions and/or recommendations pertaining to:

- Geologic, seismic and historical setting;
- Subsurface conditions (soil, bedrock and groundwater);
- Geotechnical considerations for the project;
- 2010 California Building Code seismic criteria;
- Preliminary planning-level geotechnical criteria (foundations, earthwork, slabs-on-grade, pavement and retaining walls).

Please note that our Phase 1 scope is purely geotechnical in nature and does not include environmental services relating to chemical constituents that may be present in soil, groundwater, vegetation or air at the site.

### **Phase 1 Fee Estimate**

We propose to provide the Phase 1 services outlined for a lump-sum fee of \$13,817. An approximate breakdown of our scope and fee follows; the spreadsheet and Schedule of Charges used to develop our fee estimate is attached.

<b>Task</b>	<b>Fee Estimate</b>
Review of Information	\$1,880
Permitting, Onsite Explorations and Laboratory Testing	\$6,217
Analyses, Meetings, Consultation and Report	\$5,720
<b>Phase 1 Fee Estimate:</b>	<b>\$13,817</b>

In preparing our estimate, we assumed that USA and/or City personnel will verify that our marked boring locations are clear of subsurface utilities prior to drilling; alternatively, we would retain a private utility locator for an additional fee of \$750 (Phase 1 fee estimate = \$14,567). We also assumed that: 1) our marked boring locations will be readily accessible to truck-mounted equipment on the scheduled day of drilling; 2) all of the borings can be drilled during regular weekday work hours and can be completed within one 8-hour day; 3) soil cutting generated during drilling can be left onsite; 4) the subsurface materials are not contaminated to the extent that higher than Level D Personal Protective Equipment (PPE) would be required.

If any of the above assumptions prove to be incorrect, we will consult with you regarding any necessary modifications to our scope and/or fee. Additional Phase 1 services would be provided at the rates shown on the attached Schedule of Charges. Please note that the attached cost estimate spreadsheet includes a line item for meeting and consultation hours that are included in our lump sum fee. If meeting and/or consultation hours in excess of the amounts budgeted are requested, we would be pleased to provide such additional services in accordance with the attached Schedule of Charges.

### **FUTURE GEOTECHNICAL SERVICES**

The information presented in our Phase 1 Geotechnical Site Analysis Report is intended for planning and preliminary cost estimating purposes; additional geotechnical services will be required to support final design and during construction. Please note that these future geotechnical services are not included in the Phase 1 fee estimate presented in the previous section.

## **Phase 2 - Design-Level Geotechnical Investigation**

Once a preferred Schematic Design layout has been identified, A3GEO will conduct a second and final phase of investigation to provide geotechnical engineering recommendations for the design and construction of the project. Our Phase 2 investigation will build upon the information developed in Phase 1 by filling any significant data gaps that may remain in areas where buildings, retaining walls, cut slopes, fills, pavements or stormwater discharge facilities are planned. The scope of our design-level geotechnical investigation will include: 1) drilling supplemental borings and performing laboratory tests, as needed; 2) consulting with the project team as designs are developed; 3) conducting geotechnical engineering analyses; and 4) preparing a comprehensive design-level Geotechnical Investigation report for the project.

## **Post-Report Geotechnical Services**

As geotechnical engineer of record for the project, A3GEO will provide a standard suite of post-report geotechnical services to check that our recommendations are appropriately implemented, accommodate any significant changes to the project (e.g. design refinements, value engineering, construction conditions), and document that the geotechnical aspects of the work were accomplished in accordance with the approved Contract Documents. The scope of our post-report geotechnical services will include; 1) geotechnical plan and specification reviews; 2) consulting with the project team as designs are finalized; 3) reviewing contractor submittals that are geotechnical in nature; 4) providing onsite geotechnical observation and testing during construction; and 5) preparing a final geotechnical construction-phase report documenting conformance with the approved Contract Documents.

## **CLOSURE**

We look forward to working with you and your design team on this important City of Albany project. If you agree with the scope of services and fee estimate outlined, please provide an appropriate authorization that references this proposal. Please do not hesitate to call if you have any questions or comments regarding our proposed approach, scope and/or fee.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Wayne Magnusen'.

Wayne Magnusen, PE, GE  
Principal Engineer  
Cell: (510) 325-5724

A handwritten signature in black ink, appearing to read 'Dona K Mann'.

Dona Mann, PE, GE  
Principal Engineer  
Cell: (415) 425-0247

Attachments: Fee Estimate Spreadsheet  
Schedule of Charges

**Albany Maintenance Center - Preliminary Geotechnical Study**  
**A3GEO Proposal Dated February 21, 2012**

Personnel	A3GEO LABOR				Direct Costs (by Subtask)	Task Totals
	Principal	Project	Graphics	A3GEO Labor (by Subtask)		
Labor Rate	\$180	\$145	\$100			
<b>Task</b>						
<b>1.0 - Review of Information:</b>						
Review of Geologic and Seismic information	2	4		\$940		\$940
Obtain and Review Available Caltrans Plans	2	4		\$940		\$940
<b>Task 1.0 Totals:</b>				<b>\$1,880</b>	<b>\$0</b>	<b>\$1,880</b>
<b>2.0 - Permitting, Onsite Explorations and Laboratory Testing</b>						
Drilling Preparation	1	2		\$470	\$403	\$873
Subsurface Exploration	1	8		\$1,340	\$1,725	\$3,065
Laboratory Testing/Sample Review	4	1		\$865	\$1,415	\$2,280
<b>Task 2.0 Totals :</b>				<b>\$2,675</b>	<b>\$3,542</b>	<b>\$6,217</b>
<b>3.0 - Analyses, Meetings, Consultation and Report</b>						
Analyze and Interpret Data	4			\$720		\$720
As-Requested Meetings and Consultation	6			\$1,080		\$1,080
Develop Conclusions and Recommendations	4			\$720		\$720
Preliminary Study Report	8	8	6	\$3,200		\$3,200
<b>Task 3.0 Totals</b>				<b>\$5,720</b>	<b>\$0</b>	<b>\$5,720</b>
<b>Total Labor Hours</b>	<b>32</b>	<b>27</b>	<b>6</b>			
<b>Total Labor Fee</b>	<b>\$5,760</b>	<b>\$3,915</b>	<b>\$600</b>	<b>\$10,275</b>	<b>TOTAL FEE:</b>	<b>\$13,817</b>

<b>Direct Costs</b>	Unit Cost	Qty	Total (+15%)	Task
Drilling Permit Fee	\$350	1	\$403	2.1
Drilling Subcontractor (Northstar,one day)	\$1,500	1	\$1,725	2.2
Geotechnical Laboratory Testing (breakdown below)			\$1,415	2.3
	<b>Total Direct Costs:</b>		<b>\$3,542</b>	
<b>Laboratory Test Breakdowns</b>	Unit Cost	Qty	Total (+15%)	Task
Moisture and Density	\$ 17	10	\$ 196	2.3
Atterberg Limits	\$ 140	4	\$ 644	2.3
Sieve Analysis w/ % passing #200	\$ 70	4	\$ 322	2.3
Sieve Analysis and Hydrometer	\$ 165	0	\$ -	2.3
Consolidation	\$ 340	0	\$ -	2.3
Triaxial Unconsolidated Undrained Shear Strength	\$ 125	0	\$ -	2.3
R-Value	\$ 220	1	\$ 253	2.3
Caltrans corrosion	\$ 222		\$ -	2.3
	<b>Total Lab Costs:</b>		<b>\$1,415</b>	2.3



**A3GEO, INC.**  
**2012 SCHEDULE OF CHARGES**  
**(Effective January 1, 2012)**

**Lump Sum Agreement:** If services are performed for a lump sum fee, Client agrees to pay A3GEO the lump sum fee stated in the proposal letter.

**Time and Materials Agreement:** If services are performed on a time-and-materials basis, Client agrees to pay A3GEO in accordance with the following schedule of charges:

<b><u>Personnel (Engineer/Geologist)</u></b>	<b><u>Hourly Rate</u></b>
Principal.....	\$180
Associate.....	\$175
Senior.....	\$165
Project.....	\$145
Staff.....	\$125
Technician.....	\$105
Graphics.....	\$100
Word Processing.....	\$90
<b><u>Equipment*</u></b>	<b><u>Rate</u></b>
All Vehicles.....	\$0.65/mile
Nuclear Gauge Testing.....	\$15.00/test
Slope Inclinometer Probe.....	\$125/½-day
	\$175/full day
<b><u>Laboratory Testing**</u></b>	<b><u>Rate</u></b>
Moisture Content (ASTM D 2216).....	\$15.00
Moisture and Density (ASTM D 2937)	
2.5-inch Diameter.....	\$20.00
3.0-inch Diameter.....	\$30.00
#200 Sieve Wash (ASTM D 1140).....	\$75.00
Sieve w/Percent Passing #200 (ASTM D 422).....	\$105.00
Sieve w/Hydrometer (ASTM D 422).....	\$170.00
Plastic and Liquid (Atterberg) Limits (ASTM D 4318, Method B)..	\$155.00
Unconfined Compression (ASTM D 2166).....	\$70.00
Modified Proctor Compaction – 4" Mold (ASTM D 1557).....	\$240.00
Modified Proctor Compaction – 6" Mold (ASTM D 1557).....	\$290.00
Modified Proctor Compaction Check Point (ASTM D 1557).....	\$100.00

\* Charges for other equipment can be quoted at time of usage.

\*\* Laboratory testing provided by independent laboratory will be billed at cost plus 15 percent.

These rates will be charged for work performed during this current year. Work continuing into the following year or years will be charged at the new rates. Work required on Saturdays will be billed at 1.5 times the rates shown above; work required on Sundays or holidays will be billed at 2.0 times the rates shown above. On our invoice, this will be accommodated by increasing the amount of hours worked by 50% and 100%, respectively. Services will be charged in ¼-hour increments, with time rounded upward to the nearest ¼ hour. Project related charges incurred prior to contract authorization are customarily incorporated into total project charges upon contract authorization. Any time spent out of the office is charged on a portal-to-portal basis, including mileage.

**Miscellaneous Charges:** Sub-consultants, equipment rentals, and reimbursables are billed at cost plus 15 percent.