



October 26, 2015

Davis Joint Unified School District  
1919 5<sup>th</sup> Street  
Davis, Ca 95616

Attn: Mr. George Parker  
P: (530) 759-2182  
E: [gparker@djUSD.net](mailto:gparker@djUSD.net)

**RE: Proposal for Geotechnical Engineering Services  
Proposed New Classroom Buildings  
North Davis Elementary School  
Davis, California  
Terracon Proposal No. PNB150366**

Dear Mr. Parker:

Terracon Consultants Inc. (Terracon) appreciates the opportunity to submit this proposal to provide geotechnical engineering services for the above referenced project. This proposal includes an outline of the project information, the proposed scope of services, and our proposed fees for our services. We appreciate the opportunity and look forward to working with you on this and future projects.

## **A. PROJECT INFORMATION**

### **Site Location**

ITEM	DESCRIPTION
Location	555 E 14 <sup>th</sup> Street, Davis, California.
Existing Improvements	According to a Google Earth air photo, the project site is located in the northeast corner of the existing, fully developed school campus. Existing improvements consist of classroom buildings, multi-purpose building, offices, hard courts, parking, and landscaping.
Current Ground Cover	The project area is developed with existing modular classroom buildings, and grass lawn.
Existing Topography	Relatively level.



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**Geotechnical**



**Environmental**



**Construction Materials**



**Facilities**

## Project Description

ITEM	DESCRIPTION
<b>Building Construction</b>	We anticipate proposed construction will consist of 4 to 6, pre-fabricated, modular classroom buildings. The classrooms will have a total building footprint of approximately 6,000 square feet.
<b>Finished Floor Elevation</b>	Not available at this time but is anticipated to be no more than one (1) foot above existing site grade.
<b>Maximum loads</b>	<ul style="list-style-type: none"> <li>■ Maximum Column Loads: 10 kips (assumed)</li> <li>■ Maximum Wall Loads: less than 2 kips/ft. (assumed)</li> <li>■ Maximum Floor Loads: less than 100 psf (assumed)</li> </ul>
<b>Grading</b>	Based on the site topography cuts and fills on the order of less than one (1) foot are anticipated to provide a level building pad.
<b>Cut and fill slopes</b>	None
<b>Parking area</b>	The proposed project will not include parking as it is already provided.
<b>Retaining walls</b>	None planned, however, recommendations will be provided
<b>Below Grade Areas</b>	None
<b>Existing Seismic Hazards</b>	<p>Based on our review of the State of California Seismic Hazards Zones maps, the site is not shown to be within an Alquist-Priolo<sup>1</sup> special studies zone for earthquake faults.</p> <p>Upon our review of the Association of Bay Area Governments earthquake liquefaction susceptibility maps<sup>2</sup>, the project site is not mapped in an area of susceptibility. However, a liquefaction analysis will be performed per the 2013 California Building Code.</p>
<b>Previous Studies</b>	Anderson Environmental performed a geotechnical investigation at the adjacent Davis High School, and published a report on June 2, 2011, Project No. 1105-485. We will use the data from the previous report to characterize the liquefaction potential at this site.

Should any of the above information or assumptions be inconsistent with the planned construction, please let us know so that we may make any necessary modifications to this proposal.

<sup>1</sup> <http://gis.abag.ca.gov/website/Hazards/?hlyr=apZones>

<sup>2</sup> <http://gis.abag.ca.gov/website/Hazards/?hlyr=liqSusceptibility>

## **B. SCOPE OF SERVICES**

The services to be provided by Terracon are summarized in the following paragraphs.

### **Geotechnical Exploration Services**

Field Program: Terracon proposes to perform three (3) hand augered borings to depths ranging from 10 to 15 feet each (or auger refusal, if shallower) at the project site. The borings will be advanced at each proposed corner of the new structure.

The borings will be drilled to the approximate depths indicated or to auger refusal if shallower using hand drilling methods. If auger refusal is encountered shallower than 5 feet within the building pad borings, we will conduct one offset boring to further assess the refusal materials.

Test samples will be collected during drilling in general accordance with the appropriate ASTM methods. Standard Penetration Testing (SPT) and sampling using either standard split-spoon or Modified California samplers will be performed at 5-foot intervals to the maximum depths drilled with an extra sample gathered within the upper 5 feet. In addition we will observe and record groundwater levels during and after drilling. Once the samples have been collected and classified in the field, they will be placed in appropriate sample containers for transport to our laboratory. After completion, the boreholes will be backfilled with soil cuttings.

Our proposal assumes that the field exploration can be performed using Level D personal protective equipment (PPE). Should additional PPE, other special equipment, or special borehole sealing procedures become necessary, our fee will be discussed with you prior to commencing further drilling.

The geotechnical scope of services for this project does not include, either specifically or by implication, any environmental assessment of the site intended to identify or quantify potential site contaminants.

**Conditions/Items to be provided by client:** Items to be provided by the client include the right of entry to conduct the exploration and an awareness and/or location of any private subsurface utilities existing in the area. We will contact Underground Services Alert (USA) for location of utilities in public easements and attempt to contact all utility agencies listed on the USA ticket. Location of private lines on the property is not part of the USA or Terracon scope.

Terracon will take reasonable efforts to reduce damage to the property, such as rutting of the ground surface. However, it should also be understood that in the normal course of our work some such disturbance could occur. We have not budgeted to restore the site beyond backfilling our boreholes with cuttings or grout. Additionally, excess soil cuttings will be left on-site. If there are any restrictions or special requirements regarding this site or exploration, these should be known prior to commencing field work.

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For safety purposes, all borings will be backfilled with soil cuttings or grout after their completion. Excess auger cuttings would be disposed of on the site. Because backfill material often settles below the surface after a period of time, we recommend the boreholes be checked periodically and backfilled if necessary. We could provide this service at your request, but this would involve additional cost.

Terracon will mark the approximate boring locations on a Google Earth aerial photograph based on measurements from existing site features. The locations should be considered accurate only to the degree implied by those methods. If precise locations and/or elevations are desired, we suggest that the client retain a licensed surveyor to stake the boring locations and provide the information.

**Laboratory Testing:** The samples will be returned to our laboratory and visually classified in general accordance with the Unified Soil Classification System (USCS). Based on our observation and the field data, sieve, Atterberg limits, moisture, density, and unconfined compression testing may be performed on representative samples.

**Geotechnical Engineering Analysis and Report:** The results of our field and laboratory programs will be evaluated by a Geotechnical Engineer licensed in the State of California. Based on the results of our evaluation, an engineering report will be prepared that details the results of the testing performed, provides logs of the borings, and a diagram of the site/boring layout. The report will include the following:

- A description of the proposed project
- A description of the surface and subsurface conditions
- Computer generated boring logs with soil stratification based on visual soil classification
- Summarized laboratory data
- Groundwater levels observed during and after completion drilling
- Boring location plan
- Site preparation/earthwork recommendations
- Recommended foundation type(s) and design parameters
- Anticipated foundation settlement
- Lateral earth pressures for retaining wall design
- Seismic site class and considerations
- Drainage recommendations
- Pavement thickness recommendations based on boring data and assumed traffic loads
- Liquefaction Analysis
- Geological Hazards

**Schedule:** Terracon proposes completion and delivery of the Geotechnical Exploration report within approximately three weeks from date of authorization to proceed. In situations where information is needed prior to submittal of our report, we can provide verbal information or

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recommendations for specific project requirements after we have completed our field and laboratory programs.

## **C. COMPENSATION**

**We propose to perform these professional engineering services for the lump sum cost of \$4,950.** Should it be necessary to expand our services beyond those outlined in this proposal, we will notify you, then send a supplemental proposal stating the additional services and fee. We will not proceed without your authorization, as evidenced by your signature on the Supplement Agreement Form.

## **D. AUTHORIZATION**

This proposal may be accepted by signing the attached Agreement of Services and returning one copy along with this proposal to Terracon. This proposal is valid only if authorized within sixty days from the listed proposal date.

We appreciate the opportunity to provide this proposal and look forward to working with you on the proposed project. If you have any questions or comments regarding this proposal or require additional services, please call the undersigned at 916-928-4690.

Sincerely,

**Terracon Consultants, Inc.**

A handwritten signature in blue ink, appearing to read 'R. Holmer', is written over a faint, light blue circular stamp or watermark.

Robert Holmer, G.E. 2672  
Principal Engineer

Attachments: Agreement of Services

## AGREEMENT FOR SERVICES

This AGREEMENT is between Davis Joint Unified School District ("Client") and Terracon Consultants, Inc. ("Consultant") for Services to be provided by Consultant for Client on the North Davis Elementary School Addition project ("Project"), as described in the Project Information section of Consultant's Proposal dated 10/23/2015 ("Proposal") unless the Project is otherwise described in Exhibit A to this Agreement (which section or Exhibit is incorporated into this Agreement).

1. **Scope of Services.** The scope of Consultant's services is described in the Scope of Services section of the Proposal ("Services"), unless Services are otherwise described in Exhibit B to this Agreement (which section or exhibit is incorporated into this Agreement). Portions of the Services may be subcontracted. Consultant's Services do not include the investigation or detection of, nor do recommendations in Consultant's reports address the presence or prevention of biological pollutants (e.g., mold, fungi, bacteria, viruses, or their byproducts) or occupant safety issues, such as vulnerability to natural disasters, terrorism, or violence. If Services include purchase of software, Client will execute a separate software license agreement. Consultant's findings, opinions, and recommendations are based solely upon data and information obtained by and furnished to Consultant at the time of the Services.
2. **Acceptance/ Termination.** Client agrees that execution of this Agreement is a material element of the consideration Consultant requires to execute the Services, and if Services are initiated by Consultant prior to execution of this Agreement as an accommodation for Client at Client's request, both parties shall consider that commencement of Services constitutes formal acceptance of all terms and conditions of this Agreement. Additional terms and conditions may be added or changed only by written amendment to this Agreement signed by both parties. In the event Client uses a purchase order or other form to administer this Agreement, the use of such form shall be for convenience purposes only and any additional or conflicting terms it contains are stricken. This Agreement shall not be assigned by either party without prior written consent of the other party. Either party may terminate this Agreement or the Services upon written notice to the other. In such case, Consultant shall be paid costs incurred and fees earned to the date of termination plus reasonable costs of closing the project.
3. **Change Orders.** Client may request changes to the scope of Services by altering or adding to the Services to be performed. If Client so requests, Consultant will return to Client a statement (or supplemental proposal) of the change setting forth an adjustment to the Services and fees for the requested changes. Following Client's review, Client shall provide written acceptance. If Client does not follow these procedures, but instead directs, authorizes, or permits Consultant to perform changed or additional work, the Services are changed accordingly and Consultant will be paid for this work according to the fees stated or its current fee schedule. If project conditions change materially from those observed at the site or described to Consultant at the time of proposal, Consultant is entitled to a change order equitably adjusting its Services and fee.
4. **Compensation and Terms of Payment.** Client shall pay compensation for the Services performed at the fees stated in the Compensation section of the Proposal unless fees are otherwise stated in Exhibit C to this Agreement (which section or Exhibit is incorporated into this Agreement). If not stated in either, fees will be according to Consultant's current fee schedule. Fee schedules are valid for the calendar year in which they are issued. Fees do not include sales tax. Client will pay applicable sales tax as required by law. Consultant may invoice Client at least monthly and payment is due upon receipt of invoice. Client shall notify Consultant in writing, at the address below, within 15 days of the date of the invoice if Client objects to any portion of the charges on the invoice, and shall promptly pay the undisputed portion. Client shall pay a finance fee of 1.5% per month, but not exceeding the maximum rate allowed by law, for all unpaid amounts 30 days or older. Client agrees to pay all collection-related costs that Consultant incurs, including attorney fees. Consultant may suspend Services for lack of timely payment. It is the responsibility of Client to determine whether federal, state, or local prevailing wage requirements apply and to notify Consultant if prevailing wages apply. If it is later determined that prevailing wages apply, and Consultant was not previously notified by Client, Client agrees to pay the prevailing wage from that point forward, as well as a retroactive payment adjustment to bring previously paid amounts in line with prevailing wages. Client also agrees to defend, indemnify, and hold harmless Consultant from any alleged violations made by any governmental agency regulating prevailing wage activity for failing to pay prevailing wages, including the payment of any fines or penalties.
5. **Third Party Reliance.** This Agreement and the Services provided are for Consultant and Client's sole benefit and exclusive use with no third party beneficiaries intended. Reliance upon the Services and any work product is limited to Client, and is not intended for third parties. For a limited time period not to exceed three months from the date of the report, Consultant will issue additional reports to others agreed upon with Client, however Client understands that such reliance will not be granted until those parties sign and return Consultant's reliance agreement and Consultant receives the agreed-upon reliance fee.
6. **LIMITATION OF LIABILITY. CLIENT AND CONSULTANT HAVE EVALUATED THE RISKS AND REWARDS ASSOCIATED WITH THIS PROJECT, INCLUDING CONSULTANT'S FEE RELATIVE TO THE RISKS ASSUMED, AND AGREE TO ALLOCATE CERTAIN OF THE ASSOCIATED RISKS. TO THE FULLEST EXTENT PERMITTED BY LAW, THE TOTAL AGGREGATE LIABILITY OF CONSULTANT (AND ITS RELATED CORPORATIONS AND EMPLOYEES) TO CLIENT AND THIRD PARTIES GRANTED RELIANCE IS LIMITED TO THE GREATER OF \$50,000 OR CONSULTANT'S FEE, FOR ANY AND ALL INJURIES, DAMAGES, CLAIMS, LOSSES, OR EXPENSES (INCLUDING ATTORNEY AND EXPERT FEES) ARISING OUT OF CONSULTANT'S SERVICES OR THIS AGREEMENT. PRIOR TO ACCEPTANCE OF THIS AGREEMENT AND UPON WRITTEN REQUEST FROM CLIENT, CONSULTANT MAY NEGOTIATE A HIGHER LIMITATION FOR ADDITIONAL CONSIDERATION. THIS LIMITATION SHALL APPLY REGARDLESS OF AVAILABLE PROFESSIONAL LIABILITY INSURANCE COVERAGE, CAUSE(S) OR THE THEORY OF LIABILITY, INCLUDING NEGLIGENCE, INDEMNITY, OR OTHER RECOVERY. THIS LIMITATION SHALL NOT APPLY TO THE EXTENT THE DAMAGE IS PAID UNDER CONSULTANT'S COMMERCIAL GENERAL LIABILITY POLICY.**
7. **Indemnity/Statute of Limitations.** Consultant and Client shall indemnify and hold harmless the other and their respective employees from and against legal liability for claims, losses, damages, and expenses to the extent such claims, losses, damages, or expenses are legally determined to be caused by their negligent acts, errors, or omissions. In the event such claims, losses, damages, or expenses are legally determined to be caused by the joint or concurrent negligence of Consultant and Client, they shall be borne by each party in proportion to its own negligence under comparative fault principles. Neither party shall have a duty to defend the other party, and no duty to defend is hereby created by this indemnity provision and such duty is explicitly waived under this Agreement. Causes of action arising out of Consultant's services or this Agreement regardless of cause(s) or the theory of liability, including negligence, indemnity or other recovery shall be deemed to have accrued and the applicable statute of limitations shall commence to run not later than the date of Consultant's substantial completion of services on the project.
8. **Warranty.** Consultant will perform the Services in a manner consistent with that level of care and skill ordinarily exercised by members of the profession currently practicing under similar conditions in the same locale. **EXCEPT FOR THE STANDARD OF CARE PREVIOUSLY STATED, CONSULTANT MAKES NO WARRANTIES OR GUARANTEES, EXPRESS OR IMPLIED, RELATING TO CONSULTANT'S SERVICES AND CONSULTANT DISCLAIMS ANY IMPLIED WARRANTIES OR WARRANTIES IMPOSED BY LAW, INCLUDING WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.**
9. **Insurance.** Consultant represents that it now carries, and will continue to carry: (i) workers' compensation insurance in accordance with the laws of the states having jurisdiction over Consultant's employees who are engaged in the Services, and employer's liability insurance (\$1,000,000); (ii) commercial general liability insurance (\$1,000,000 occ / \$2,000,000 agg); (iii) automobile liability insurance (\$1,000,000 B.I. and P.D. combined single



limit); and (iv) professional liability insurance (\$1,000,000 claim / agg). Certificates of insurance will be provided upon request. Client and Consultant shall waive subrogation against the other party on all general liability and property coverage.

10. **CONSEQUENTIAL DAMAGES. NEITHER PARTY SHALL BE LIABLE TO THE OTHER FOR LOSS OF PROFITS OR REVENUE; LOSS OF USE OR OPPORTUNITY; LOSS OF GOOD WILL; COST OF SUBSTITUTE FACILITIES, GOODS, OR SERVICES; COST OF CAPITAL; OR FOR ANY SPECIAL, CONSEQUENTIAL, INDIRECT, PUNITIVE, OR EXEMPLARY DAMAGES.**
11. **Dispute Resolution.** Client shall not be entitled to assert a Claim against Consultant based on any theory of professional negligence unless and until Client has obtained the written opinion from a registered, independent, and reputable engineer, architect, or geologist that Consultant has violated the standard of care applicable to Consultant's performance of the Services. Client shall provide this opinion to Consultant and the parties shall endeavor to resolve the dispute within 30 days, after which Client may pursue its remedies at law. This Agreement shall be governed by and construed according to Kansas law.
12. **Subsurface Explorations.** Subsurface conditions throughout the site may vary from those depicted on logs of discrete borings, test pits, or other exploratory services. Client understands Consultant's layout of boring and test locations is approximate and that Consultant may deviate a reasonable distance from those locations. Consultant will take reasonable precautions to reduce damage to the site when performing Services; however, Client accepts that invasive services such as drilling or sampling may damage or alter the site. Site restoration is not provided unless specifically included in the Services.
13. **Testing and Observations.** Client understands that testing and observation are discrete sampling procedures, and that such procedures indicate conditions only at the depths, locations, and times the procedures were performed. Consultant will provide test results and opinions based on tests and field observations only for the work tested. Client understands that testing and observation are not continuous or exhaustive, and are conducted to reduce - not eliminate - project risk. Client agrees to the level or amount of testing performed and the associated risk. Client is responsible (even if delegated to contractor) for requesting services, and notifying and scheduling Consultant so Consultant can perform these Services. Consultant is not responsible for damages caused by services not performed due to a failure to request or schedule Consultant's services. Consultant shall not be responsible for the quality and completeness of Client's contractor's work or their adherence to the project documents, and Consultant's performance of testing and observation services shall not relieve Client's contractor in any way from its responsibility for defects discovered in its work, or create a warranty or guarantee. Consultant will not supervise or direct the work performed by Client's contractor or its subcontractors and is not responsible for their means and methods.
14. **Sample Disposition, Affected Materials, and Indemnity.** Samples are consumed in testing or disposed of upon completion of tests (unless stated otherwise in the Services). Client shall furnish or cause to be furnished to Consultant all documents and information known or available to Client that relate to the identity, location, quantity, nature, or characteristic of any hazardous waste, toxic, radioactive, or contaminated materials ("Affected Materials") at or near the site, and shall immediately transmit new, updated, or revised information as it becomes available. Client agrees that Consultant is not responsible for the disposition of Affected Material unless specifically provided in the Services, and that Client is responsible for directing such disposition. In the event that test samples obtained during the performance of Services (i) contain substances hazardous to health, safety, or the environment, or (ii) equipment used during the Services cannot reasonably be decontaminated, Client shall sign documentation (if necessary) required to ensure the equipment and/or samples are transported and disposed of properly, and agrees to pay Consultant the fair market value of this equipment and reasonable disposal costs. In no event shall Consultant be required to sign a hazardous waste manifest or take title to any Affected Materials. Client shall have the obligation to make all spill or release notifications to appropriate governmental agencies. The Client agrees that Consultant neither created nor contributed to the creation or existence of any Affected Materials conditions at the site. Accordingly, Client waives any claim against Consultant and agrees to indemnify and save Consultant, its agents, employees, and related companies harmless from any claim, liability or defense cost, including attorney and expert fees, for injury or loss sustained by any party from such exposures allegedly arising out of Consultant's non-negligent performance of services hereunder, or for any claims against Consultant as a generator, disposer, or arranger of Affected Materials under federal, state, or local law or ordinance.
15. **Ownership of Documents.** Work product, such as reports, logs, data, notes, or calculations, prepared by Consultant shall remain Consultant's property. Proprietary concepts, systems, and ideas developed during performance of the Services shall remain the sole property of Consultant. Files shall be maintained in general accordance with Consultant's document retention policies and practices.
16. **Utilities.** Client shall provide the location and/or arrange for the marking of private utilities and subterranean structures. Consultant shall take reasonable precautions to avoid damage or injury to subterranean structures or utilities. Consultant shall not be responsible for damage to subterranean structures or utilities that are not called to Consultant's attention, are not correctly marked, including by a utility locate service, or are incorrectly shown on the plans furnished to Consultant.
17. **Site Access and Safety.** Client shall secure all necessary site related approvals, permits, licenses, and consents necessary to commence and complete the Services and will execute any necessary site access agreement. Consultant will be responsible for supervision and site safety measures for its own employees, but shall not be responsible for the supervision or health and safety precautions for any other parties, including Client, Client's contractors, subcontractors, or other parties present at the site.

Consultant: Terracon Consultants, Inc.  
 By: \_\_\_\_\_ Date: 10/28/2015  
 Name/Title: Rob Holmer, GE / Principal Engineer  
 Address: 50 Goldenland Ct. Ste. 100  
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 Phone: (916) 928-4690 Fax: (916) 928-4697  
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Client: Davis Joint Unified School District  
 By: \_\_\_\_\_ Date: \_\_\_\_\_  
 Name/Title: George Parker / Director of Facilities,  
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