

**MODIFICATION No. 10
TO
SAN RAFAEL CITY SCHOOLS
INDEPENDENT CONSULTANT AGREEMENT
FOR PROFESSIONAL SERVICES
WITH MILLER PACIFIC ENGINEERING GROUP**

This Modification No. 10 ("Amendment") amends the Independent Consultant Agreement for Professional Services ("Agreement"), which was entered into by and between San Rafael City Schools ("District") and Miller Pacific Engineering Group ("Consultant") (together, "Parties") as follows:

RECITALS

WHEREAS, the Parties entered into the Agreement effective as of January 3, 2017; and

WHEREAS, the Parties wish to make certain modifications to their agreement.

NOW, THEREFORE, in consideration of the mutual promises and covenants set forth above and contained herein, the Parties agree as follows:

AGREEMENT TO AMEND

1. **Exhibit "A"** to the Agreement is deleted in its entirety and replaced with the document titled "**Exhibit "A"**" and attached to this Amendment.
2. Section 4 of the Agreement ("Compensation"), and all subsections, are deleted and replaced with:

"4. Compensation. District agrees to pay the Consultant for services satisfactorily rendered pursuant to this Agreement a total fee not to exceed Two Hundred Thousand, One Hundred Dollars (\$200,100), as further detailed below. District shall pay Consultant according to the following terms and conditions:

4.1 Consultant's total not to exceed fee is a fixed fee broken down as follows:

- 4.1.1 San Rafael High School preliminary geotechnical investigation, Nine Thousand Dollars (\$9,000).
- 4.1.2 Davidson Middle School preliminary geotechnical investigation, Three Thousand, Six Hundred Dollars (\$3,600).
- 4.1.3 Laurel Dell Elementary School preliminary geotechnical investigation, Nine Thousand Dollars (\$9,000).
- 4.1.4 Venetia Valley K-8 preliminary geotechnical investigation, Three Thousand, Six Hundred Dollars (\$3,600).

- 4.1.5 Supplemental geotechnical investigation and site-specific analysis at: Laurel Dell Elementary, Twelve Thousand, Eight Hundred Dollars (\$12,800); Davidson Middle School, Thirteen Thousand, Two Hundred Dollars (\$13,200); and Venetia Valley K-8, Thirteen Thousand, Eight Hundred Dollars (\$13,800).
- 4.1.6 San Rafael High School Stadium Construction Phase Services, Twenty-Two Thousand, Eight Hundred Dollars (\$22,800).
- 4.1.7 Geotechnical services at Bahia Vista Elementary School Shade Structure, One Thousand Dollars (\$1,000).
- 4.1.8 Phase 2 – Supplemental Geotechnical Investigation and Phase 2a – Site Specific Seismic Response Analysis at San Rafael High School, Seventeen Thousand, Seven Hundred Dollars (\$17,700).
- 4.1.9 Construction Observation and Testing Services at San Rafael High School Stadium, Twelve Thousand Dollars (\$5,800).
- 4.1.10 Interim Housing Phase Hazardous Materials Services at Venetia Valley K-8, Six Thousand, Eight Hundred Dollars (\$6,800)
- 4.1.11 Construction Observation and Testing Services at Laurel Dell Elementary School (\$15,000) and Davidson Middle School (\$15,000)
- 4.1.12 Construction Observation and Testing Services at San Rafael High School - Madrone, Administration, Commons, Kitchen, Entry (MACK) Project (\$21,000).
- 4.1.13 Supplemental Construction Observation and Testing Services at San Rafael High School - Madrone, Administration, Commons, Kitchen, Entry (MACK) Project (13,800)
- 4.1.14 Pre-Construction Geotechnical Engineering Services at San Rafael High School – STEAM Project (16,200).

4.2. Payment for the Work shall be made for all undisputed amounts based upon the delivery of the work product as determined by the District. Payment shall be made within thirty (30) days after the Consultant submits an invoice to the District for Work actually completed and after the District's written approval of the Work, or the portion of the Work for which payment is to be made.

4.3. The Services shall be performed at the hourly billing rates and/or unit prices included in Exhibit "B."

4.4. If Consultant works at more than one site, Consultant shall invoice for each site separately.

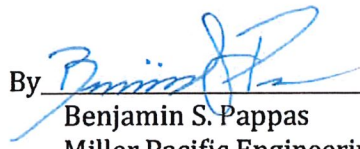
4.5. District will withhold 2% of each billing until the Division of the State Architect certification is received for the entire project"

3. All other provision of the Agreement shall remain in full force and effect and are reaffirmed. If there is any conflict between this Agreement and any provision of the Agreement relating to this Amendment only, the provisions of this Amendment shall control.

IN WITNESS WHEREOF, the Parties hereto have executed this Amendment on the dates indicated below.

By _____
Jim Hogeboom
Superintendent
San Rafael City Schools

Date

By  _____
Benjamin S. Pappas
Miller Pacific Engineering Group

9/19/19

Date

Exhibit "A"

For the San Rafael High School, Davidson Middle School, Laurel Dell Elementary School, and Venetia Valley K-8 School, Consultant shall provide the Services described below:

1. Geological and Soil Engineering General Requirements

- a. The Geological and Soil Engineering Consultant ("GSE Consultant") shall be a registered Geotechnical Engineer in California with experience in soils engineering. The work to be provided by the GSE Consultant includes the following: supply all equipment and labor to perform field exploration, drill test borings, sample soils and perform laboratory tests; evaluate geologic and seismic conditions; and provide full soils evaluations with detailed soils reports which shall include construction level recommendations, surface evaluation, subsurface exploration coring, boring log, r-value test results, grain size distribution, soils classification according to the Unified Soils Classification System, laboratory testing of earth materials collected, ground water evaluation, existing geologic, seismic, and soil conditions present within the Property, and evaluation of potential impacts to the Project under conditions associated with faults, strong seismic ground shaking, seismic-related ground failure such as liquefaction, landslides, and unstable geologic units and/or soils.
- b. The geological and soil engineering studies of the Property shall be conducted in compliance with Education Code sections 17212.5. The GSE Consultant will be the District's advisor for the existing sites and identified projects with regard to compliance with statutes and regulations on Geological and Soil Engineering services. The successful GSE Consultant will ensure that the District complies with all laws and regulations governing Geological and Soil Engineering which are applicable to the construction, renovation, or modernization of a public school or public school facilities, including without limitation Public Resources

Code section 21000 et seq., Government Code section 65402, Education Code section 17210 et seq. and all applicable regulations. The successful GSE Consultant shall coordinate its work with the District's other consultants without limitation. The successful GSE Consultant shall respond to public comments on any reports issued by the GSE Consultant on the Project and shall attend and participate in any public hearings upon District request.

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2. Preliminary Geotechnical Investigation and Geologic Hazard Study

- a. Review of literature, including reports and studies relating to the geology of the sites, potential geologic hazards, and other relevant subsoil conditions.
- b. Review of maps, aerial photos, and any other existing surveys relating to geological or geologic hazard conditions at the sites.
- c. Site reconnaissance and visual confirmation of existing surface conditions on the sites.
- d. Soil testing, boring or probes to establish preliminary soils conditions on the sites.
- e. Review and correlation of data to confirm any geologic hazards existing on or adjacent to the sites which might impact future school development, including identified projects.
- f. Preparation of the Preliminary Geotechnical and Geologic Hazard Study for each of the sites including:
 - i. Identification of the general soils characteristics of the sites.
 - ii. Preliminary bearing values for building and site design including foundations, slabs-on-grade, paving, retaining walls.
 - iii. General preliminary recommendations for appropriate foundation designs for new construction, and retrofit of existing buildings.
 - iv. The report should identify any areas of the site that may be unsuitable for consideration as areas for possible school construction.
- g. Meetings with District staff and Bond Team to review the course of work, review draft documents and to consider comments prior to final issuance.
- h. Final Documents issued to District.

3. Design Level Geotechnical Recommendations

- a. Supplemental Geotechnical Engineering Investigation for specific new construction, additions, or renovation projects.
- b. Develop recommendations for grading, excavations, groundwater mitigation, foundations, footings, piers, slabs for building and site elements.
- c. Develop recommendations where ground improvement strategies may be required including areas of liquefaction.
- d. Coordination with the District's design and engineering teams.
- e. Preparation of Final Geotechnical report summarizing site Engineering Geology for full compliance with California Geological Survey Note 48 requirements
- f. Assist the District in the preparation of testing and inspection requirements for building and site elements subgrades and foundations.

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4. Construction Phase Services

- a. For specific projects provide support during bidding and construction.
- b. Respond to Requests for Information related to geotechnical engineering issues during bidding and construction.
- c. Develop any supplemental information, recommendations, or reports needed to facilitate construction in accordance with approved plans and reflecting sub-surface issues which may be encountered during the work.
- d. Coordinate services with the District's Architectural, Engineering, and Construction Management teams.
- e. Provide and coordinate all required testing for compaction, excavations, building and foundation subgrades, slab subgrades, engineered soils mitigation elements. Coordinate laboratory analysis and report timely to the project team.
- f. Provide certification as required for each element and final certification as required to close the project with the Division of State Architect.

In addition to the Services identified above, in Sections 1 through 4, inclusive, Consultant shall provide the following services during the construction phase of the District's San Rafael High School Stadium Renovation Project ("Stadium Construction Phase Services") as follows:

5. Stadium Construction Phase Services:

Services under Section 4, above, as well as Site observation and testing during the Construction Phase, including the following:

- **Pre-Construction Meeting:**
We will attend a pre-construction meeting.
- **Laboratory Testing:**
We will collect bulk samples of the soils and baserock utilized on the project to determine the maximum laboratory density and optimum moisture content. We have budgeted time to perform 4-laboratory compaction curves.
- **Lime Treatment Testing:**
We will perform site visits during the lime treatment process to verify the amount of lime placed and observe the procedures utilized by the Contractor. We have budgeted 2 site visits totaling 12-hours to perform this task.
- **Subgrade Testing:**
We will perform intermittent site visits to perform field density tests on building pad, track and field, and parking lot subgrades. We have budgeted 6 site visits totaling 16-hours to perform this task.

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- **Baseroack Testing:**
We will perform intermittent site visits to perform field density tests on the baseroack utilized underlying the track and field, parking lot subgrades, and other flatwork. We have budgeted 6 site visits totaling 16-hours to perform this task.
- **Foundation Inspection:**
We will perform intermittent site visits to observe foundation excavations for the new structures, including the stadium seating, ticket/restroom building, and stadium lights. We budgeted 8-site visits totaling approximately 16-hours of time to perform this task.
- **Asphalt Pavement Section Testing:**
We will perform intermittent site visits to test compaction of the subgrade and Caltrans Class 2 Aggregate Baseroack placed on to construct the subgrade. We budgeted 4-site visits totaling approximately 20-hours of time to perform this task.
- **Other geotechnical items, as needed.**

The purpose of the construction observation and testing services is to form an opinion regarding the Contractor's compliance with the plans and the recommendations outlined in the Geotechnical Investigation Report dated September 2, 2015. Following completion of the construction observation and testing services, Consultant shall prepare and provide a sufficiently detailed letter report to District summarizing Consultant's observations and providing Consultant's opinion.

6. On-Call, additional construction observation and testing for the following items:

- Aggregate base rock compaction testing for the "sports zone", track and parking lot areas,
- Asphalt concrete testing for the "sports zone", track and parking lot,
- Other miscellaneous geotechnical items, and
- Final observation and testing summary letter.

7. Geotechnical Services – Bahia Vista Elementary School

Services under Section 4, above, as well as update the seismic and foundation design criteria given in the 2003 reports to the current 2016 California Building Code and update the Geotechnical Investigation Report.

8. Phase 2 – Supplemental Geotechnical Investigation

Services under Section 4, above, as well as Supplemental Geotechnical Investigation Services for San Rafael High School

- Perform a subsurface exploration that complies with CGS' Note 48. Per Note 48 one boring is required for every 5,000 square feet, with a minimum of two borings per structure.

- Perform four soil borings excavated with track mounted drilling equipment to supplement our existing borings, drilled over a two-day period.
- Exploration work on Saturday's if previously approved by District. Weekend work will be paid a surcharge.
- During Exploration, consultant will collect select soil samples for laboratory testing. It is anticipated that testing will include moisture content, dry density, unconfined compressive strength, material passing the #200 sieve, plasticity index, expansive index (if necessary), R-Value, and Caltrans corrosion resistance testing.
- Prepare a Geotechnical Investigation Report to aid in the design and construction of the proposed improvements. This report will include a summary of the existing subsurface conditions, a summary of the pertinent geologic hazards and associated mitigation measures, site grading recommendations; and foundation and seismic design criteria. The report will also include a site plan showing our approximate boring locations, boring logs, and laboratory test results.

The purpose of the supplemental Geotechnical Investigation is to aid in the development of the proposed phase 2 improvements to the San Rafael High School Campus.

9. Phase 2a – Site Specific Seismic Response Analysis

- If necessary, consultant will perform a site specific seismic response analyses based on the results of the subsurface exploration and/or if requested by the Project Structural Engineer.
- Per CGS requirements, consultant will input at least five acceleration time histories into a seismic hazard analysis software that will include a model of the anticipated soil column. The results of the analysis will be presented in the Geotechnical Investigation Report and will include a design acceleration response spectra and a plot of the acceleration time histories.

10. Construction Observation and Testing – Venetia Valley Construction Phase

- Intermittent site observations and testing during construction of the Venetia Valley Interim Classroom Project to include:
 - **Laboratory Testing:** Miller Pacific to collect bulk samples of the soils and baserock utilized on the project to determine the maximum laboratory density and optimum moisture content. Miller Pacific to perform 3-laboratory compaction curves.
 - **Subgrade Preparation Compaction Testing:** Miller Pacific to perform intermittent site visits to perform field density tests (ASTM d 1557) on the compacted building pad subgrade. Miller Pacific to conduct four (4) site visits.

- **Class 2 Aggregate Baserock Compaction Testing:** Miller Pacific to perform intermittent site visits to perform field density tests (ASTM D 1557) on the compacted Class 2 Aggregate Baserock. Miller Pacific to conduct four (4) site visits.
- **Geotechnical Consultation:** Miller Pacific to be available to attend site meetings regarding the construction process, answering Contractor RFI's and other as needed geotechnical engineering consultation.
- **Other Geotechnical Items, as needed.**
- **** These services do not include concrete and/or asphalt sampling and testing.**

11. Utility Trench Backfill and Environmental Testing – Laurel Dell Elementary School and Davidson Middle School

- Observation and testing the following items:
 - Laboratory Testing:
 - Collect bulk samples of the soils and base rock utilized on the project to determine the maximum laboratory density and optimum moisture content.
 - Subgrade Preparation Compaction Testing:
 - Perform intermittent site visits to perform field density tests (ASTM D 1557) on the compacted utility trench backfill.
 - Environmental Testing:
 - Collect samples of onsite soils for environmental testing. It is anticipated that testing will consist of CAM 17, total petroleum hydrocarbons (motor oil, diesel, and gasoline), and semi- and total volatile hydrocarbons.
 - Other geotechnical items, as needed.

12. Construction Observation and Testing Budget Estimate (Madrone, Administration, Commons, Kitchen (MACK) Building

- Observation and testing the following items:
 - Laboratory Testing:
 - Collect bulk samples of the soils and base rock utilized on the project to determine the maximum laboratory density and optimum moisture content.
 - Shade Structure Observation
 - Perform intermittent site visits to observe the construction of the drilled pier foundation supporting the new shade structure.
 - Environmental Testing
 - Collect samples of onsite soils for environmental testing. It is anticipated that testing will consist of CAM 17, total petroleum hydrocarbons (motor oil, diesel, and gasoline), and volatile hydrocarbons.

- Building Pad Preparation Observation and Testing
 - Perform intermittent site visits to perform field density tests (ASTM D 1557) on the compacted building and flatwork subgrade and verify a firm and unyielding surface.
- Foundation Observations and Testing
 - Perform intermittent to fulltime site visits to observe the construction of the foundation system. Observe the helical anchor installation and load testing on a fulltime basis while intermittent site visits will be appropriate for shallow foundations.
- Flatwork Section Observation and Testing
 - Perform intermittent site visits to observe and perform field density tests during the subgrade preparation and Class 2 Aggregate base rock placement.
- Utility Trench Backfill Testing
 - Perform intermittent site visits to observe and perform field density tests on the utility trench backfill.
- Other Geotechnical items, as needed.
- Consultant to provide a letter report summarizing the observations upon satisfactory completion of the project.

** Concrete sampling and testing is not included in this scope of work.

13. Pre-Construction Geotechnical Investigation - San Rafael High School STEAM Project

- Consultant to perform a subsurface exploration that complies with CGS' (California Geological Survey) Note 48. Per Note 48, one boring is required for every 5,000-square feet, with a minimum of two borings per structure.
- Consultant to perform two (2) soil borings over a one-day period, excavated with truck mounted drilling equipment.
- Consultant to perform four (4) to five (5) cone penetration tests (CPTs) pushed with truck mounted equipment over a one-day period.
- It is anticipated that borings and CPTs will extend 20 to 50 feet below the existing ground surface or at least 5 feet into firm materials/refusal.
- Consultant to collect soil samples for laboratory testing (borings only), anticipated to include moisture content, dry density, unconfined compressive strength, materials passing the #200 sieve, plasticity index. Expansive index (if necessary), and corrosivity.
- Consultant to prepare a geotechnical investigation report to aid in the design and construction of the proposed improvements. This report is to include:
 - summary of the existing subsurface conditions
 - summary of the pertinent geologic hazards and associated mitigation measure

- site grading recommendations
- foundation and seismic design criteria
- site plan showing consultant's approximate boring locations, boring logs, and laboratory tests.

[END OF EXHIBIT]