

August 3, 2017

Proposal P17-2358

Mr. Hector DeLeon
Project Manager
Van Pelt Construction Services
5030 Business Center Dr., Suite 240
Fairfield, CA 94534

Sent via email to: hector.deleon@vpcsonline.com

RE: Limited Phase II Environmental Site Assessment
San Rafael High School
Building M (Auto Shop), Building O (Metal Shop)
150 3rd St., San Rafael, CA 94901

Dear Mr. DeLeon:

In response to your request, Millennium Consulting Associates (Millennium) is pleased to provide this proposal to provide a limited Phase II Environmental Site Assessment (ESA) at Building M and Building O at San Rafael High School. This proposal will provide our understanding of the project, the proposed scope of services, and a fee schedule.

PROJECT UNDERSTANDING

San Rafael City Schools had requested Millennium to perform a Phase I ESA of San Rafael High School in April, 2017. On April 18, 2017, Millennium completed the Phase I ESA of San Rafael High School. The Phase I ESA identified the following Recognized Environmental Conditions (RECs):

- An Auto Shop located in Building M has been in operation since prior to 1950. It is likely that soil beneath the Auto Shop is contaminated with total petroleum hydrocarbons as motor oil (TPH-mo), hydraulic oil, and solvents. Soil vapor beneath Building M is potentially contaminated with solvents.
- A Metal Shop located in Building O has been in operation since prior to 1950. It is likely that soil beneath the Metal Shop is contaminated with heavy metals, and solvents. Soil vapor beneath Building O is potentially contaminated with solvents.

San Rafael City Schools is in the preparation phase to demolish Building M and Building O at San Rafael High School. Millennium proposes that a limited Phase II ESA be performed in order to characterize potential soil contamination beneath Building M and Building O. Millennium will also perform waste characterization of soils that have the potential to exceed California or Federal threshold concentrations for hazardous waste.

SCOPE OF WORK

Task 1 – Investigation Planning, Site Preparation, and Sampling

Millennium will perform a limited Phase II ESA at Building M and Building O. Millennium recommends that 72 soil samples be collected as outlined in Table 1 below:

Table 1: Proposed Work Plan

| Location | Sample Depths (ft-bgs) | Boring Type | Sample Type | Sample Quantity/Interval | Analytical Summary |
|-------------------------|------------------------|-------------|-------------|--|---|
| Building M (Auto Shop) | 0.5 to 2.0, 4.5 to 6.0 | Direct Push | Soil | 10 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 40 | VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), TPH(g, d, mo) (EPA Method 8015B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082) |
| Building O (Metal Shop) | 0.5 to 2.0, 4.5 to 6.0 | Direct Push | Soil | 8 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 32 | VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082) |

Millennium will initiate field investigation by conducting subsurface utility clearances at all proposed sampling locations. This will be performed by coordinating with local agencies through USA Underground Alert and utilizing third party utility and subsurface locating services. Millennium personnel will conduct the sampling with a C-57 licensed subcontracted driller. The soil samples collected during drilling will be collected in containers provided by the analytical laboratory.

Soil samples will be field screened using an Organic Vapor Analyzer equipped with a Photo Ionization Detector (OVA-PID). Due to the relatively shallow soil sampling, no groundwater samples will be collected. All soil samples will be placed in a cooler containing ice. Samples will be logged onto a chain of custody.

All borings performed will be in conformance with applicable boring permits and permit close-out documents, including boring logs.

The soil samples will be shipped to McCampbell Analytical under chain of custody by Millennium personnel. The soil samples will be analyzed for the following constituents:

- Volatile Organic Compounds (VOCs) by EPA Method 8260B;
- Total Petroleum Hydrocarbons (TPH) as gasoline, diesel, and motor oil (g, d, mo) by EPA Method 8015B;
- CAM17 Heavy Metals by EPA Method 6020/7041; and
- Polychlorinated biphenyls (PCBs) as Aroclors by EPA Method 8082.

Estimated analytical quantities based on the above and in Table 1 are detailed in the attached cost detail spreadsheet. All analyses will be performed at the standard 5 day turn-around time. All analyses will be performed using Level II Quality Assurance/Quality Control (QA/QC) protocols.

Task 2 – Project Management, Data Analysis, & Reporting

Following completion of the field work and review of the analytical results, Millennium will prepare a written report. The analytical results will be compared to Environmental Screening Levels (ESLs) established by the San Francisco Bay Regional Water Quality Control Board (Water Board). The ESLs are considered to be conservative. Consequently, the Water Board, under most circumstances, considers the presence of a chemical in soil at concentrations below the corresponding ESL to not pose a significant, long-term (chronic) threat to human health and the environment.

The report will also present the visual observations during the field investigation, soil sampling results, findings, and conclusions. Based on comparison of the ESLs with the analytical data, Millennium will develop specific conclusions and recommendations about onsite reuse and offsite disposal options for excess soil, and if additional worker protection will be required during site demolition activities.

Soils that have analyte concentrations below the DTSC Total Threshold Limit Concentration (TTLC), but have the potential to exceed the Soluble Threshold Limit Concentration will be analyzed using the Waste Extraction Test (WET). Soils that have the potential for exceeding Federal regulated levels for hazardous waste will be analyzed using the Toxicity Characteristic Leachate Procedure (TCLP). For budgeting purposes, Millennium will assume that 10% of the collected samples for VOCs and CAM17 Metals will require analysis using the WET and 5% of the collected samples for VOCs and CAM17 Metals will require analysis using the TCLP.

TIMELINE

Start of work on the limited Phase II ESA is dependent on the following:

- District availability prior to the start of the 2017-2018 school year. The District will be required to move the automobiles out of Building M in order for the driller to have access to boring locations; and

- Driller availability. Millennium will schedule a driller within 5 days of executing the notice to proceed.

FEE PROPOSAL

The proposed estimate to provide the services as described herein, is presented on an estimated, not-to-exceed basis, of \$18,986 as follows:

Task 1: Investigation Planning, Site Preparation, and Sampling: \$15,546

Task 2: Project Management, Data Analysis, and Reporting: \$3,440

TERMS AND SCHEDULE


Please sign and return the Proposal Acceptance and Notice to Proceed as Millennium's formal notice to proceed with the services outlined in this proposal. The services will be performed in conformance with terms and conditions in the attached agreement and according to the timeline presented above.

If you have any comments or questions, please do not hesitate to contact our office.

Sincerely,

Millennium Consulting Associates

Prepared by



Arik Denning
Staff Environmental Specialist

Reviewed by



David Teter, PhD, PE, QSD
Director of Engineering and Environmental Services

Attached:

Table 1 – Sampling Plan

Table 2 – Analytical Cost Summary

Fee Schedule

Proposal Acceptance and Notice to Proceed

Analytical Summary Table 1

| Location | Sample Depth (ft bgs) | Boring Type | Sample Type | Sample Quantity/Interval | Analytical Summary |
|----------------------------|-----------------------|-------------|-------------|---|---|
| Building M (Auto Shop) | 0 to 6 | Direct Push | Soil | 10 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 40 | VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), TPH(g, d, mo) (EPA Method 8015B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082) |
| Building O (Metal Shop) | 0 to 6 | Direct Push | Soil | 8 samples/boring x 4 borings @ ~2' and 6'; Total Samples: 32 | VOCs +/- Oxygenates Excluding Acrolein & 2CEVE by P&T and GC-MS (EPA Method 8260B), CAM17 Heavy Metals (EPA Method 200.8 / 6020A), PCBs Aroclors only by GC-ECD (EPA Method 8082) |

Table 2 Analytical Cost Summary

| Site | Type | Qty | #Samples | Total Samples | Analytical Plan | | | | | Toxicity Characteristic Leaching Procedure (TCLP) (5% of total samples) |
|-----------------------------|-----------------------|-----|----------|---------------|-----------------------------|----------------------------------|-------------------------------------|-----------------------------|--|---|
| | | | | | CAM 17 Metals (Method 6020) | PCBs Aroclors only (Method 8082) | VOCs/Fuel Oxygenates (Method 8260B) | TPH (g,d,mo) (Method 8015B) | Waste Extraction Test (WET) (10% of total samples) | |
| Building M (Auto Shop) | Direct Push (shallow) | 4 | 10 | 40 | 16 | 16 | 32 | 16 | 6 | 2 |
| Number of Samples | | | | | 16 | 16 | 32 | 16 | 6 | 2 |
| Total Fee/Analysis - Bldg M | | | | | \$ 2,263.20 | \$ 1,030.60 | \$ 4,048.00 | \$ 920.00 | \$386.40 | \$128.80 |
| | | | | | | | | | | \$8,777.00 |

| Professional Services - Environmental Consulting | | | | |
|--|------------------------------------|--------------|---------------------|--------------------|
| Project: <u>San Rafael High School - Building M (Auto Shop) and O</u> | | | | |
| Proposal Due Date: _____ | | | | |
| IH Firm: <u>MILLENNIUM CONSULTING ASSOCIATES</u> | | | | |
| Contact: <u>A. Denning, C. Harris, D. Teter</u> | | | | |
| Email Address: <u>Dteter@mecaenviro.com; adenning@mecaenviro.com; charris@mecaenviro.com</u> | | | | |
| Scope of Work: <u>Limited Phase II ESA</u> | | | | |
| Task 1 : Investigation Planning, Site Preparation, and Sampling | | | | |
| Labor | | | | |
| Labor Category | Description of Work | No. of Hours | Hourly Rate per SOQ | Total |
| Principal | | | \$175.00 | \$0.00 |
| Registered Professional (CIH, CSP, PE, AIA) | | | \$150.00 | \$0.00 |
| Senior Professional Level - (Eng./IH/Envir. Specialist) | | | \$125.00 | \$0.00 |
| Project Professional Level - (Eng./IH/Envir. Specialist) | Field Coordination, Field Services | 30 | \$105.00 | \$3,150.00 |
| Senior Staff Level - (Eng./IH/Envir. Specialist) | | | \$95.00 | \$0.00 |
| Staff Level - (Eng./IH/Envir. Specialist) | | | \$85.00 | \$0.00 |
| Sr. Field Technician | | | \$75.00 | \$0.00 |
| Field Technician | | | \$65.00 | \$0.00 |
| Autocad/Graphics Specialist | | | \$65.00 | \$0.00 |
| Administrative Support Specialist | | | \$50.00 | \$0.00 |
| Total Labor Costs | | | | \$3,150.00 |
| Other Costs (Lab, Field Equipment, Field Supplies) | | | | |
| Item | | No. of Item | Fixed Unit Rate | Total |
| Laboratory Analysis: Standard TAT | Per Table 2 | 1 | \$8,777.00 | \$8,777.00 |
| Drilling Subcontractor | | 1 | \$2,948.60 | \$2,949.00 |
| Underground Utility Survey | | 1 | \$370.00 | \$370.00 |
| Field Instrumentation | | | \$0.00 | \$0.00 |
| Agency Permitting | | | \$0.00 | \$0.00 |
| Sample Shipping | | | \$0.00 | \$0.00 |
| Field Consumables | PID | 1 | \$300.00 | \$300.00 |
| Total Other Costs | | | | \$12,396.00 |
| TOTAL TASK 1 | | | | \$15,546.00 |
| Task 2 : Project Management, Data Analysis, & Reporting | | | | |
| Labor | | | | |
| Labor Category | Description of Work | No. of Hours | Hourly Rate per SOQ | Total |
| Principal | | | \$175.00 | \$0.00 |
| Registered Professional (CIH, CSP, PE, AIA) | QA/QC | 10 | \$150.00 | \$1,500.00 |
| Senior Professional Level - (Eng./IH/Envir. Specialist) | | | \$125.00 | \$0.00 |
| Project Professional Level - (Eng./IH/Envir. Specialist) | Reporting | 16 | \$105.00 | \$1,680.00 |
| Senior Staff Level - (Eng./IH/Envir. Specialist) | | | \$95.00 | \$0.00 |
| Staff Level - (Eng./IH/Envir. Specialist) | | | \$85.00 | \$0.00 |
| Sr. Field Technician | | | \$75.00 | \$0.00 |
| Field Technician | | | \$65.00 | \$0.00 |
| Autocad/Graphics Specialist | Figures | 4 | \$65.00 | \$260.00 |
| Administrative Support Specialist | | | \$50.00 | \$0.00 |
| Total Labor Costs | | | | \$3,440.00 |
| Other Costs | | | | |
| Item | | No. of Item | Fixed Unit Rate | Total |
| Shipping | | | \$0.00 | \$0.00 |
| Office Consumables | | | \$0.00 | \$0.00 |
| Total Other Costs | | | | \$0.00 |
| TOTAL TASK 2 | | | | \$3,440.00 |
| TOTAL TASKS 1 - 2 | | | | \$18,986.00 |