January 10, 2019

Delivered via email

Mr. Bob Price
San Mateo-Foster City School District
Facilities Department
1410 South Amphlett Blvd.
San Mateo, California 94402
rprice@smfcsd.net

Re: Change Order Request for Additional Sampling and Additional Characterization Investigation in Support of the Preliminary Endangerment Assessment
New North Central Elementary School
San Mateo, California

Dear Mr. Price:

Roux Associates, Inc. (Roux) has prepared this Change Order Request to San Mateo-Foster City School District (Client) for the Additional Sampling and Additional Characterization Investigation in support of the Preliminary Endangerment Assessment (PEA) for the New North Central Elementary School, located adjacent to College Park Elementary School, between E Poplar Avenue and North Humboldt Street in San Mateo, California (Site, Figure 1). Additional budget is required to complete the PEA based on:

1) DTSC's email from November 9, 2018 requiring additional perimeter samples around the historic structures at the Site (Attachment A).

2) The preliminary results of the PEA investigation conducted December 3-5, 2018 and additional sampling requested by the Department of Toxic Substances Control (DTSC) during a conference call conducted on January 2, 2019 and email from January 8, 2019 (Attachment B). DTSC and the PEA Guidance requires step-out sampling to be conducted at any location that has a concentration greater than the approved screening level. DTSC also required perimeter samples to be collected from any buildings containing hazardous materials.

PEA WP, DTSC COMMENTS ROUND 2 - ADDITIONAL SAMPLING

DTSC's email from November 9, 2019 (Attachment A), included the second round of comments on the PEA Work Plan, and Specific Comment #3 requested additional perimeter samples around the historic structures at the Site in addition to the previously requested perimeter samples requested in their first round of comments. This request added a total of six additional soil borings to the December 2018 PEA Investigation, with the following additional analyses: six soil samples for lead analysis, and three soil samples for pesticides analysis. This task added time for Roux and additional laboratory costs.

ADDITIONAL CHARACTERIZATION INVESTIGATION

Preliminary results of the PEA included two locations that exceeded the background concentrations for arsenic in soil (RB-1 and RB-3), and the hazardous materials survey determined that the current buildings and pipe had lead-based paint. Per the DTSC PEA Guidance, additional characterization sampling is required. To provide a cost savings on reporting costs, Roux discussed the results with the Client and DTSC and confirmed additional sampling is required by the PEA Guidance. With the

additional sampling conducted at this time, Roux can provide a cost savings to the Client by incorporating the additional characterization investigation data into the current PEA report rather than drafting two separate reports for submittal with DTSC.

The additional characterization investigation proposed advancing twenty-five soil borings per the sampling plan (Attachment B) and collecting thirty-two soil samples.

In accordance with the sampling plan and approval from DTSC, the additional characterization investigation includes twenty-five soil borings from 1 to 5 feet below ground surface (bgs).

Soil samples will be analyzed for:

- The United States Environmental Protection Agency (USEPA) Method 6010B/7000 for arsenic and lead.

This change order includes the costs for the additional labor hours to complete the additional characterization, subcontractor and vendor costs, and other direct costs associated with the PEA sampling plan. Roux will pay for the cost of the repeat samples. A breakdown of this investigation is included as Attachment C.

DTSC COMMUNICATION & COMMENTS

Based on the two rounds of comments by DTSC on the PEA Work Plan, Roux requests a time-and-material budget for the continued communication with DTSC and to support the anticipated rounds of comments with DTSC on the final PEA report. Roux anticipates an additional 20 hours for communications with DTSC (conference calls and meetings), as well as drafting response to comments and incorporating comments into the PEA investigation.

CHANGE ORDER REQUEST

The total change order request is for an additional $27,500. The summary of the change order is as follows:

Type	Change Order #2 Cost	Explanation
ADDITIONAL SAMPLING	$ 2,300.00	This task includes Roux labor ($1,600) and additional laboratory costs ($700).
ADDITIONAL CHARACTERIZATION INVESTIGATION	$ 20,200.00	Breakdown included as Attachment C.
DTSC COMMUNICATION & COMMENTS	$ 5,000.00	This task includes Roux Labor ($5,000).

Roux will complete this assignment on a time and materials (T&M) basis in accordance with our 2019 Fee Schedule. The total amount of this Change Order is **$27,500.** Approval of this Change Order request will bring the total Professional Services Agreement Sum, to **$89,200**. Once approved, the total revised budget will not be exceeded without prior approval from the Client. Roux will continue to conduct the

scope of work set forth herein using the Agreement that is presently in effect between Roux and San Mateo-Foster City School District for the ongoing work at the Site, which is incorporated by reference.

LIMITATIONS

Roux has proposed what we believe is a Scope of Work consistent with the Client's goals. No investigation is thorough enough to describe all conditions of interest at a given site. If conditions were not identified during the implementation of the proposed Scope of Work, such a finding should not be construed as a guarantee of the absence of such conditions at the Site, but rather as the result of the services performed within the scope, limitations, and cost of the work performed. Roux will not be able to report on, or accurately predict events that may change Site conditions after the investigation has been completed.

CLOSING

Should you have any questions or require further information regarding this Change Order Request, do not hesitate to contact Angela Liang Cutting by telephone at 415-967-6017 or by email at acutting@rouxinc.com.

Sincerely,

ROUX ASSOCIATES, INC.

Christine Pilachowski, P.G.
Senior Geologist

Angela Liang Cutting, Ph.D., P.E.
Principal Engineer

Encl.

Figures:

1. Vicinity Map
2. Site Boundary
3. Site Plan
4. Proposed Additional Characterization Investigation Site Plan

Attachments:

A. DTSC's Second Round of Comments on the PEA Work Plan
B. DTSC Communication – Additional Characterization Investigation Proposed Scope of Work
C. Additional Characterization Investigation Budget Summary

FIGURES

1. Vicinity Map
2. Site Boundary
3. Site Plan
4. Proposed Additional Characterization Investigation Site Plan

N

1,500 0 1,500 3,000 Feet

Title: **SITE LOCATION MAP**

COLLEGE PARK ELEMENTARY SCHOOL
FUTURE DEVELOPMENT AREA
715D INDIAN AVENUE
SAN MATEO, CALIFORNIA

Prepared For:
SAN MATEO–FOSTER CITY SCHOOL DISTRICT

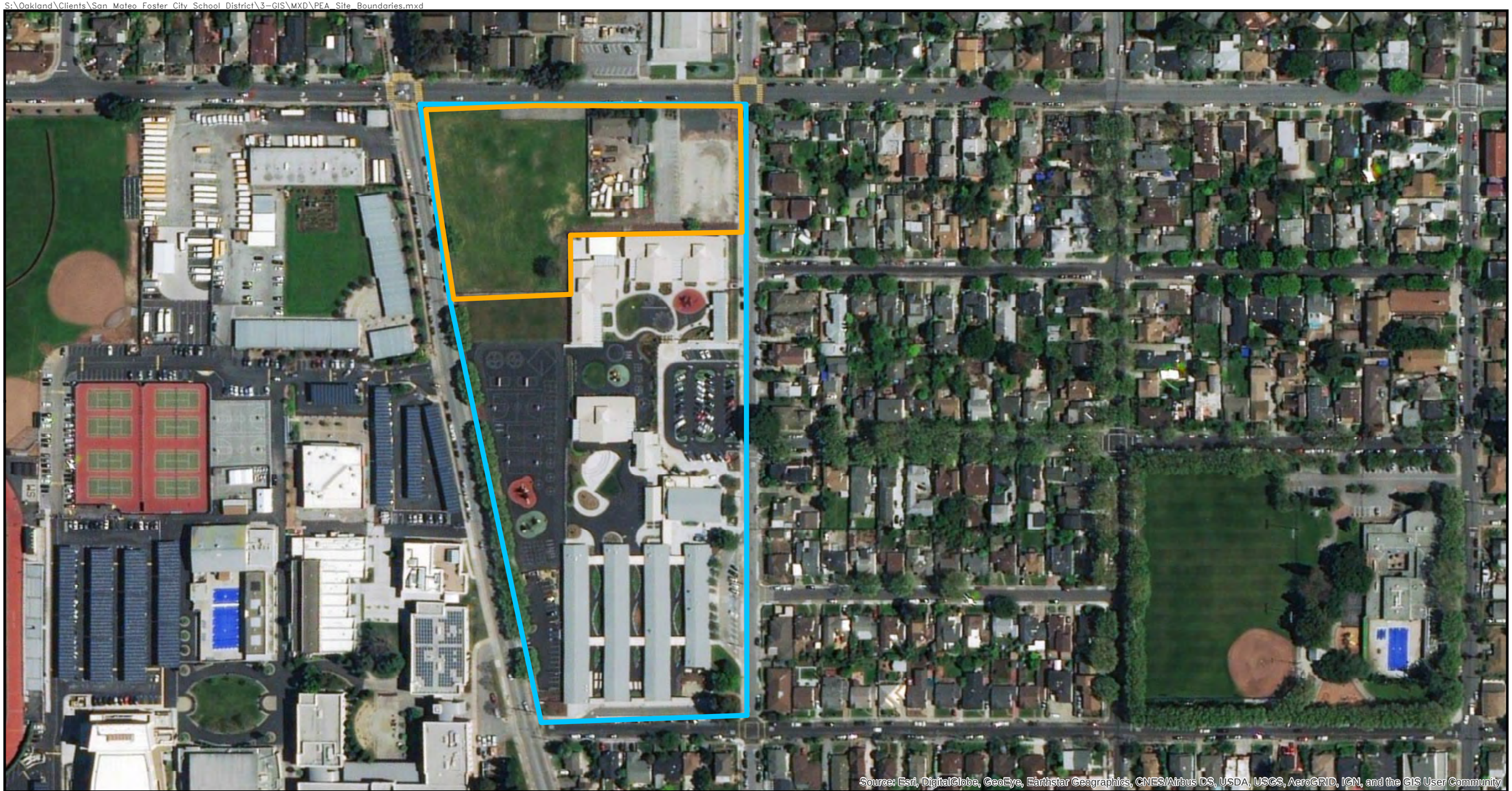
ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: GM	Date: 13OCT17
Prepared by: GM	Scale: 1" = 3,000 '
Project Mgr: ALC	Project:
File: Figure 1 Site Location Map	

FIGURE 1

S:\Oakland\Clients\San Mateo Foster City School District\2-Phase I ESA\GIS\Figure 1 Site Location Map.mxd

S:\Oakland\Clients\San_Mateo_Foster_City_School_District\3-GIS\MXD\PEA_Site_Boundaries.mxd



SITE BOUNDARY

SCHOOL BOUNDARY

0 125 250 500 750 1,000 Feet

Title: **SITE BOUNDARY**

FUTURE DEVELOPMENT AREA
715 INDIAN AVE, SAN MATEO, CA

Prepared For:
SAN MATEO-FOSTER CITY SCHOOL DISTRICT

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: GM	Date: 01OCT18	FIGURE
Prepared by: LM	Scale: As Shown	2
Project Mgr: ALC	Project: x8616.185.1	
File: PEA_Site_Boundaries		

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- SITE BOUNDARY
- CURRENT BUILDING OUTLINE
- APPROXIMATE LOCATION OF HISTORIC BUILDING OUTLINE
- APPROXIMATE LOCATION OF HISTORICAL CAL WATER SERVICE STRUCTURES
- APPROXIMATE LOCATION OF GEOTECHNICAL BORING (TRC, 2015)
- APPROXIMATE LOCATION OF PROPOSED SOIL BORING (EVENT 1)
- APPROXIMATE LOCATION OF PROPOSED SOIL BORING (EVENT 2)
- APPROXIMATE LOCATION OF LEAD BASED PAINT SAMPLE
- APPROXIMATE LOCATION OF CAULKING SAMPLE

STRUCTURE KEY

1 – WELL PUMP HOUSE
2 – CONCRETE RESERVOIR (100,000 GALLONS)
3 – PUMP HOUSE
4 – WASH WATER SUMP (60,000 GALLONS)
5 – CLARIFYING BASINS (180,000 GALLONS)
6 – MIXING TANKS
7 – WATER SOFTENING PLANT
8 – ELEVETATED WATER TOWER
9 – SLUDGE BEDS

NOTES:
1. IMAGE SOURCE:
– GOOGLE EARTH, 2018
2. HISTORICAL CAL WATER SERVICE STRUCTURES & GEOTECHNICAL BORINGS SOURCE:
– TRC, 2015. SUMMARY OF RESEARCH NORTH CENTRAL SCHOOL SITE. SEPTEMBER 9.
3. HISTORICAL BUILDINGS SOURCES:
– ENVIRONMENTAL DATABASE RESOURCES (EDR), 2017. AERIAL PHOTOS PACKAGE.
– EDR, 2017. SANBORN MAP PACKAGE.

R = REPEAT SAMPLE
RB–1 WILL INCLUDE VERTICAL DELINEATION DURING ADDITIONAL CHARACTERIZATION INVESTIGATION.

25 0 25 50 Feet

Title: **SITE PLAN**

FUTURE DEVELOPMENT AREA
715D INDIAN AVE, SAN MATEO, CA

Prepared For:
SAN MATEO–FOSTER CITY SCHOOL DISTRICT

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: GM	Date: 08JAN19	FIGURE 3
Prepared by: GM	Scale: As Shown	
Project Mgr: ALC	Project: x8616.185.1	
File: PEA_Proposal_Figure_Update3		

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SITE BOUNDARY
CURRENT BUILDING OUTLINE
APPROXIMATE LOCATION OF HISTORIC BUILDING OUTLINE
APPROXIMATE LOCATION OF HISTORICAL CAL WATER SERVICE STRUCTURES
APPROXIMATE LOCATION OF PROPOSED SOIL BORING (EVENT 2)
APPROXIMATE LOCATION OF LEAD BASED PAINT SAMPLE
APPROXIMATE LOCATION OF CAULKING SAMPLE

STRUCTURE KEY

1 – WELL PUMP HOUSE
2 – CONCRETE RESERVOIR (100,000 GALLONS)
3 – PUMP HOUSE
4 – WASH WATER SUMP (60,000 GALLONS)
5 – CLARIFYING BASINS (180,000 GALLONS)
6 – MIXING TANKS
7 – WATER SOFTENING PLANT
8 – ELEVETATED WATER TOWER
9 – SLUDGE BEDS

NOTES:
1. IMAGE SOURCE:
– GOOGLE EARTH, 2018
2. HISTORICAL CAL WATER SERVICE STRUCTURES & GEOTECHNICAL BORINGS SOURCE:
– TRC, 2015. SUMMARY OF RESEARCH NORTH CENTRAL SCHOOL SITE. SEPTEMBER 9.
3. HISTORICAL BUILDINGS SOURCES:
– ENVIRONMENTAL DATABASE RESOURCES (EDR), 2017. AERIAL PHOTOS PACKAGE.
– EDR, 2017. SANBORN MAP PACKAGE.

R = REPEAT SAMPLE
RB–1 WILL INCLUDE VERTICAL DELINEATION DURING ADDITIONAL CHARACTERIZATION INVESTIGATION.

25 0 25 50 Feet

Title:
PROPOSED ADDITIONAL CHARACTERIZATION INVESTIGATION SITE PLAN
FUTURE DEVELOPMENT AREA
715D INDIAN AVE, SAN MATEO, CA

Prepared For:
SAN MATEO–FOSTER CITY SCHOOL DISTRICT

ROUX ASSOCIATES, INC.
Environmental Consulting & Management

Compiled by: GM	Date: 08JAN19	FIGURE
Prepared by: GM	Scale: As Shown	4
Project Mgr: ALC	Project: x8616.185.1	
File: PEA_Proposal_Figure_4 (2)		

ATTACHMENTS

A. DTSC's Second Round of Comments on the PEA Work Plan

B. Additional Characterization Investigation Proposed Scope of Work

C. Additional Characterization Investigation Budget Summary

ATTACHMENT A

DTSC's Second Round of Comments on the PEA Work Plan

From:	Tisdale, Elizabeth@DTSC
To:	cchow@smfc.k12.ca.us
Cc:	"rprice@smfcsd.net"; Angela Liang Cutting; Christine Pilachowski; Salcedo, Jose@DTSC; Mathrani, Vivek@DTSC
Subject:	REVIEW OF REVISED PRELIMINARY ENVIRONMENTAL ASSESSMENT WORK PLAN, SAN MATEO-FOSTER CITY SCHOOL DISTRICT, NEW NORTH CENTRAL ELEMENTARY SCHOOL, 715 INDIAN AVENUE (PROJECT CODE 204301)
Date:	Friday, November 9, 2018 9:13:23 AM

Good morning.

DTSC has completed its review of the Responses to Comments and the revised draft PEA Workplan and has additional comments and recommendations to offer. Please provide to DTSC response to comments for review and approval by November 26, 2018. Please provide the response to comments in a tabular format utilizing the existing numbering system, and identify the proposed revisions to the PEA Workplan.

General Comments

1. HERO supports the use of an 11 mg/kg background threshold value (BTV) for assessing arsenic as a contaminant of potential concern (COPC) in soil. The BTV should be interpreted as a not-to-exceed value, where any detections of arsenic above the BTV retain it as a COPC for risk assessment and risk management decisions. HERO does not support the comparison of a 95% upper confidence limit of mean arsenic concentrations (a central tendency statistic) to a BTV (an upper tendency statistic) to eliminate arsenic as a COPC.
2. The Table of Contents does not reflect the revised and added sections of the revised PEA Workplan or the changes stated in the Response to Comments and contains a numbering error (Section 2.4 has the subsections 2.1.1 and 2.1.2). Please revise the Table of Contents and PEA Workplan as appropriate.

Specific Comments

1. Section 2.2, Page 2. The number of acres associated with the Site is incorrectly identified as 1.6 acres. The Site (715D Indian Avenue) is a 3.8-acre sub area of 715 Indian Avenue. The entire parcel identified as APN 033-041-050 is approximately 11.3 acres. Please revise this section as appropriate.
2. Section 3.2, Pages 8 and 9. There are two sections identified as Section 3.2 in the revised PEA Workplan (3.2 Sampling Analysis Summary and 3.2 Screening Level Comparison). Please verify and revise the section numbers as appropriate.
3. Figure 3, Site Plan. Please revise the Site Plan and other sections of the revised PEA Workplan as appropriate to include:
    a. One perimeter sample per side for Structure 5 (Clarifying Basin) to assess the soil for the potential presence of lead from the potential application of lead-based paint (LBP); and
    b. One perimeter sample per side for Structure 7 (Water Softening Plant) to assess the soil for the potential presence of lead from the potential application of (LBP) and organochlorine pesticides from the potential application of termiticides to the former structure.

Please refer to DTSC's *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead Based Paint, Organochloride Pesticides from*

Termiticides, and Polychlorinated Biphenyls from Electrical Transformers (DTSC, June 2006) (https://www.dtsc.ca.gov/Schools/upload/Guidance_Lead_Contamination_050118.pdf).

4. Appendix D, Section 2.1, Page 6. The second sentence of the first paragraph under Site Description and History states 715 Indian Avenue is 3.8 acres. Please correct this to 11.33 acres and indicate the Site (715D Indian Avenue) is a 3.8-acre sub-area of the larger property.

If you have any questions regarding the project, please contact me at (916) 255-6666 or via email at Elizabeth.Tisdale@dtsc.ca.gov.

Sincerely,

Elizabeth Tisdale
Project Manager
Northern California Schools Unit
Site Mitigation and Restoration Program

ATTACHMENT B

DTSC Communication - Additional Characterization Investigation Proposed Scope of Work

From: Tisdale, Elizabeth@DTSC
To: Christine Pilachowski
Subject: RE: New North Central Elementary School (Project Code 204301) - Additional Characterization
Date: Wednesday, January 9, 2019 8:35:29 AM
Attachments: image001.png

Hi Christine,

Thank you for sending this over. Could you also send over the arsenic data so we can see the concentrations that exceed background?

Thank you,
Liz

From: Christine Pilachowski [mailto:cpilachowski@rouxinc.com]
Sent: Tuesday, January 8, 2019 3:43 PM
To: Tisdale, Elizabeth@DTSC <Elizabeth.Tisdale@dtsc.ca.gov>
Cc: Angela Liang Cutting <acutting@rouxinc.com>; Robert Price <rprice@smfc.k12.ca.us>
Subject: New North Central Elementary School (Project Code 204301) - Additional Characterization

Dear Elizabeth,

Per our conversation on January 2, 2019, the recent PEA investigation conducted by Roux Associates Inc. (Roux) on December 3 through 5, 2018 for the New North Central Elementary School at 715 Indian Avenue, San Mateo, CA (Figures 1 and 2), had two locations with arsenic concentrations exceeding background (RB-1 and RB-3), and the hazardous building material survey indicated that the two current buildings and pipe have lead-based paint materials (Figure 3). In accordance with the PEA guidance, perimeter samples must be collected around the perimeter of the buildings and at the locations of the pipe. The arsenic concentrations in soil also require additional delineation to assess the lateral and/or vertical extent of the impacts to complete the site characterization.

Based on our conversation and in accordance with the DTSC's PEA Guidance, Roux proposes to complete the following according to the methodology outlined in the Roux PEA Work Plan approved by DTSC on November 27, 2018.

-Conduct step-outs at the 2 locations with arsenic exceedance. Per the conversation with DTSC on January 2, 2019, the three step-outs are chosen to triangulate the impacts. Due to the shipping containers located on the property, the locations were selected based on workspace limitations.

-Conduct soil perimeter sampling around buildings (1 sample per side of building), and around the pipe (3 samples to triangulate the potential impact)

-Collect repeat samples at RB-1-3 and RB-3-1, the locations of the highest arsenic impact, to confirm sample results

-Collect QAQC samples on 10% of building samples (2 samples)

-Collect remaining QAQC samples on 10% of total number of samples (Total of 7 QAQC samples to be collected)

-Collect equipment blank sample

This scope of work is also summarized in the attached sampling and analysis table and shown on the attached Figure 4. Results of this additional characterization investigation will be incorporated into the PEA Report and submitted to DTSC on March 22, 2019. This additional investigation has modified the PEA schedule as follows:

Activity	**Proposed Completion Date**
Environmental Oversight Agreement	June 18, 2018
Submit Draft PEA Workplan to DTSC:	August 31, 2018
DTSC Review of PEA Workplan: ***30-days***	October 1, 2018
Submit Revised PEA Workplan: ***15-days***	October 19, 2018
DTSC Review/Approval of Revised PEA Workplan: ***15-days***	November 2, 2018
PEA Fieldwork Notice: ***5-days prior to implementation (District) Surrounding residences/businesses & posted at the Site***	November 19, 2018
PEA Fieldwork Implementation	December 3 – December 7, 2018
Submit Additional Characterization email with table and figures to DTSC	January 8,2019
Additional Field Work Implementation	February 7 & 8, 2019
Submit Draft PEA Report to DTSC	March 22, 2019
Submit Revised Draft PEA Report to DTSC	April 5, 2019
PEA Comment Period (30 days) & hearing (District) ***(Post Public Comment Notice at the Site at the beginning of the public comment period)***	April 8 – May 6, 2019. (District Board Meetings April 18, May 2, May 16, 2019)
Receive DTSC and Public Comments on Draft PEA Report	May 13, 2019
Documentation of Public Notification ***(District to provide to DTSC)***	May 15, 2019
Submit Final PEA Report to DTSC	May 24, 2019

DTSC Approval of Final PEA Report	June 3 2019

Please contact me with any comments/questions.

Christine

Christine Pilachowski, P.G. - CA | Senior Geologist

555 12th Street, Suite 250, Oakland, California 94607

Main: 415.967.6000 | Direct: 415.967.6034 | Mobile: 408.712.8260

Email: cpilachowski@rouxinc.com | Website: www.rouxinc.com

ROUX

California | Illinois | Massachusetts | New Jersey | New York | Texas

ATTACHMENT C

Additional Characterization Investigation Budget Summary

Table 1. Additional Characterization Investigation Budget Summary,
715 Indian Avenue, San Mateo, CA

Task	Type	Budget	Explanation
PEA WP - DTSC COMMENTS ROUND 2 - ADDITIONAL SAMPLING	Labor	$ 1,600.00	Includes time for Roux to add in six additiona borings and subcontractor management to coordinate the change.
	Laboratory	$ 700.00	Lab Summary is presented below.
ADDITIONAL CHARACTERIZATION INVESTIGATION	Labor	$ 9,250.00	Includes field preparation, permitting, subcontractor management, and 3.5 days in the field (USA; Utility Survey; Investigation; Drum pickup; Assumes 10 hour field day plus travel)
	Driller	$ 5,180.00	Assumes 1.5 days in the field
	Laboratory	$ 1,100.00	Lab Summary is presented below.
	Utility Clearance	$ 2,670.00	Subcontractor - Driller costs includes 9 extra soil borings, 1 extra day of field work, plus materials. Also includes Terracon to conduct building lead and PCB sampling.
	San Mateo Permit	$ 900.00	San Mateo Drilling Permit
	Other Direct Costs	$ 1,100.00	Roux materials includes field vehicle, PID Rental, and sampling supplies
DTSC COMMUNICATION & COMMENTS	Labor	$ 5,000.00	Assumes 20 hours for Roux's communication and response to DTSC comments.
	Change Order #2 Total:	**$ 27,500.00**	

Table 2. Laboratory Summary Budget, Additional Characterization Investigation
715 Indian Avenue, San Mateo, CA

	ICP Digestion	Lead	Arsenic	Pesticides	Sample Disposal
PEA WP - DTSC Comments 2 - Additional Sampling					
Quantity	6	6		3	6
Cost	*$25*	*$25*	*$25*	*$110*	*$10*
Total	*$150*	*$150*	*$0*	*$330*	*$60*
Grand Total					***$690***
ADDITIONAL CHARACTERIZATION INVESTIGATION					
Quantity	24	14	10	1	28
Cost	*$25*	*$25*	*$25*	*$110*	*$10*
Holds	6		6		
Total:	**$240**	**$140**	**$100**	**$450**	**$144**
Holds	$60		$60		
Grand Total					***$1,074***

*Holds are samples that will only be analyzed if the sample above it exceeds screening levels.