PCB DELINEATION SAMPLING REPORT

Buildings E
Malibu High School
30215 Morning View Drive
Malibu, California 90265

Prepared for:

Santa Monica-Malibu Unified School District
Facilities Improvements Projects
2828 4th Street
Santa Ana, California 90405

Project No.: SMSD-16-6543
Date: February 13, 2017
Revised, March 30, 2017

CONTENTS

On November 29, 2016, Alta Environmental conducted PCBs delineation sampling on exterior doors and window casings (components) in Building E at Malibu High School located at 30215 Morning View Drive, Malibu, California 90265.

The objective of this sampling was to determine if PCBs associated with door and window caulking may have migrated to adjacent porous surfaces beyond 12” from the possibly impacted components.

During the delineation sampling, both caulking and glazing was observed around the components. The caulking and glazing was not sampled at the Districts request but was assumed to be PCB Bulk Product Waste. Additionally, the porous materials zero to 12 inch (0-12”) adjacent to the possibly impacted door and window casings that are assumed to be PCB Remediation Waste

Removal of the possibly impacted components and affected porous surfaces surrounding the components should be conducted using proper engineering controls including but not limited to containment, worker training, worker protection etc. PCB waste should be characterized, packaged, labeled and disposed as required by TSCA 40 CFR 761 and California hazardous waste regulation set forth in Title 22, Division 4.5 of the California Code of Regulations.

Summary of Findings:

1. All exterior and interior windows and doors containing caulking and glazing are assumed to be PCB Bulk Product Waste,
2. All porous materials adjacent to exterior and interior window and door casings, approximately zero-12” are assumed to be PCB Remediation Waste.
3. As all delineation samples collected 9" and 12" away from the exterior and interior of the windows, respectively, contained <1 ppm of PCBs, porous materials greater than 9" or 12" away from the exterior and interior of the windows, respectively, are not interpreted to require removal and disposal as PCB waste at this time.

CONTENTS

REPORTED: February 13, 2017
Revised, March 30, 2017

PROJECT NO.: SMSD-16-6543

CLIENT: Santa Monica-Malibu Unified School District
Facility Improvements Projects
2828 4th Street
Santa Monica, California 90405

ATTENTION: Mr. Chris Emmett

REF: PCBs Delineation Sampling
Buildings E
Malibu High School
30215 Morning View Drive
Malibu, California 90265

1 INTRODUCTION

On November 29, 2016, Alta Environmental conducted PCBs delineation sampling on exterior doors and window casings in building E at Malibu High School located at 30215 Morning View Drive, Malibu, California 90265.

The objective of this sampling was to determine if PCBs associated with door and window caulking may have migrated to adjacent porous surfaces beyond 12" from the possibly impacted windows and doors casings slated to be remove and replaced.

The sampling was completed by Fabian Ruvalcaba and Therese Rizarri, both Cal OSHA HAZWOPER trained technicians.

Alta understands that the Santa Monica-Malibu Unified School District (District) is currently in negotiations with the Coastal Commission to demolish Building E, entirely. If the demolition is not approved, Alta understands that the District will undertake a project to renovate building E including removal of flooring materials, repainting and removal and replacement of exterior windows and doors.

2 SCOPE OF WORK

The Santa Monica-Malibu Unified School District retained Alta Environmental for the sampling (approved proposal dated November 29, 2016").

The delineation sampling was completed at the direction of the District and was limited to exterior back and front windows and from exterior doors. The sampling was collected from the exterior windows at the perpendicular wall above the windows, approximately 9 inches away from the window and on the inside, Alta conducted sampling on side or bottom of the windows and doors approximately 12 inches away from the affected components

Alta delineation sampling was completed as follows:

1. A one inch sized diameter drill bit was used in conjunction with a rotary impact hammer to collect samples from stucco, and wall plaster surfaces.
2. A polyethylene drop-sheet was placed below the sampling area to capture any dust which may be dislodged during the sample collection.
3. Samples were placed inside an appropriate glass jar with a Teflon lined cap.
4. Samples were labelled, packaged, and documented on a Chain of Custody for shipping to the laboratory.
5. Samples were shipped to the laboratory in a chilled ice chest.

6. Sampled areas were patched using a non-PCBs sealant. The patch area is temporary, intended only to provide a barrier to the exposed sampled substrates.
7. Each sample location was documented using digital photographs.
8. Equipment and tools were decontaminated using a two-step decontamination process. First, all used drill bits, and tools were cleaned using scrub brushes and detergent with de-ionized water base solution. Second, each piece was rinsed using de-ionized water. After the two step decontamination procedures, the equipment was placed on top of clean paper towels (or equivalent material) and were set to dry individually. Each piece of equipment was inspected by Alta for evidence of residual dust and debris.

The sampling was conducted in accordance with the approved proposal, site-specific work plan prepared for this project (Alta Work Plan, dated November 29, 2016), which was reviewed and approved by the District and "USEPA Region I Standard Operation Procedures for Sampling Porous Surfaces for Polychlorinated Biphenyl", approved for use by the District, May, 23, 2011. A predetermined number of doors and windows, and sample locations were selected as part of the approved work plan.

Table 1-Summary of Window Types and Associated Substrates

Component ID	Component Description	Building	Location	Exterior Substrate	Interior Substrate
Exterior windows	Full wall window	E	East and West sides of classrooms	Stucco all sides	Plaster all sides
Exterior doors	Doors embedded in full wall windows	E	East and West sides of classrooms	Stucco all sides	Plaster all sides

3 METHODOLOGY

The samples were collected from the exterior windows at the perpendicular wall above the windows, approximately 9 inches away from the window and on the inside, Alta conducted sampling on the sides or bottoms of the windows and doors approximately 12 inches away from the affected components from a surface depth of approximately 0"-.5"

The bulk samples were placed in an appropriate glass jar with a Teflon cap. Samples were labeled and packaged in a cooler and kept cool with ice during shipment.

One duplicate QA/QC sample and one split duplicate QA/QC sample were also collected.

All samples including duplicate and split QA/QC samples were analyzed by Enviro-Chem, located at 1214 East Lexington Avenue, Pomona, California, a Cal ELAP accredited laboratory (#1555) and EMSL. Contact Curtis Desilets (909) 539-4966.

All samples were analyzed in accordance with EPA Method 3540C/8082A for PCBs.

4 RESULTS

Table 2.0-Summary of Sample Results

Component	Building	Reported Construction Date	Number of Components Tested	Total of Potentially Impacted Components to be renovated	Total samples analyzed	Results
Exterior window	E	1963	2	10	4	0.278 Aroclor 1254 (collected on exterior stucco, top of window, approximately 9 inches away)
Exterior doors	E	1963	2	10	4	Not Detected

A total of 10 sample analyses including duplicate and split duplicate samples were analyzed by the laboratory. The Reporting Limit (RL) used by the laboratory for this project was below the benchmark (1 ppm) currently being used as approved by the USEPA. Results of all samples collected were reported below 1ppm, at concentrations above the RL.

Refer to Appendix A for laboratory reports and relevant sample analysis information.

Refer to Appendix B in this report for a summary of samples collected and relevant sample information.

5 QUALITY CONTROL/DATA

All samples including duplicate and split QA/QC samples were analyzed by Enviro-Chem, located at 1214 East Lexington Avenue, Pomona, California, a Cal ELAP accredited laboratory (#1555). Contact: Curtis Desilets (909) 539-4966.

Enviro-Chem reported, “all samples were received intact, and accompanying chain of custody”

Based on review of the QC data associated with the sample analysis, the recovery and precision is within the acceptable limits of the laboratory.

6 CONCLUSIONS

PCBs delineation sampling was limited to exterior doors and windows casings in Building E.

During the step-out sampling, both caulking and glazing was observed. The caulking and glazing was not sampled at the Districts request but was assumed to be PCB Bulk Product Waste. Additionally, the porous materials 0 to 12 inch (0-12”) installed around the possibly impacted doors and windows casings are assumed to be PCB Remediation Waste.

Summary of Findings:

1. All exterior and interior windows and doors containing caulking and glazing are assumed to be PCB Bulk Product Waste,
2. All porous materials adjacent to exterior and interior window and door casings, approximately 0-12" are assumed to be PCB Remediation Waste.
3. As all delineation samples collected 9" and 12" away from the exterior and interior of the windows, respectively, contained <1 ppm of PCBs, porous materials greater than 9" or 12" away from the exterior and interior of the windows, respectively, are not interpreted to require removal and disposal as PCB waste at this time.

7 RECOMMENDATIONS

Removal and waste disposal of PCB Bulk Product Waste and PCB Remediation Waste should be conducted using proper engineering controls including but not limited to containment, worker training, worker protection etc. PCB waste should be characterized, packaged, labeled and disposed as required by TSCA 40 CFR 761 and California hazardous waste regulation set forth in Title 22, Division 4.5 of the California Code of Regulations unless testing is performed prior to demolition and analytical results confirms that PCBs are less than 50 ppm in the window and door caulking.

A site-specific removal work plan should be prepared, reviewed and approved by the District prior to the start of any removal action.

Other materials such as but not limited to: paint, mastics, sealant, etc. that may contain PCBs were not sampled during the delineation sampling project. A full characterization is recommended to be completed prior to demolition of the building.

8 ASSUMPTIONS AND LIMITATIONS

The step-out sampling results included in this report are intended to be used for planning and budgeting purposes related to a scheduled door and window replacement project. Additional step-out sampling may be required to further characterized the site, waste disposal characterization, and area clearance following the removal of the impacted doors.

The objective of the step-out sampling was intended to only screen for PCBs which may have migrated beyond 12 inches away from the window and doors.

This report was prepared exclusively for use by Santa Monica-Malibu Unified School District, and may not be relied upon by any other person or entity without Alta Environmental's express written permission. The information, conclusions and recommendations described in this report apply to conditions existing at certain locations when services were performed and are intended only for the specific purposes, locations, time frames and project parameters indicated. Alta Environmental cannot be responsible for the impact of any changes in environmental standards, practices or regulations after performance of services.

In performing our professional services, we have applied present engineering and scientific judgment and used a level of effort consistent with the current standard of practice for similar types of studies.

As applicable, Alta Environmental has relied in good faith upon representations and information furnished by individuals with respect to operations and existing property conditions, to the extent that they have not been contradicted by data obtained from other sources. Accordingly, Alta Environmental accepts no responsibility for any deficiencies, omissions, misrepresentations, or fraudulent acts of persons interviewed.

Alta Environmental will not accept any liability for loss, injury claim, or damage arising directly or indirectly from any use or reliance on this report. Alta Environmental makes no warranty, expressed or implied.

This report is issued with the understanding that the client, the property owner, or its representative is responsible for ensuring that the information, conclusions, and recommendations contained herein are brought to the attention of the appropriate regulatory agencies, as required.

Material quantities are in some cases listed within this document. These quantities are not intended to be used for removal bidding purposes. Nor is this document intended as a contract manual. Work methods and sequence, coordination of participants, applicable codes, engineering controls, required submittals and notifications should in all cases be addressed in a separate and independent bidding and contract document. If you have any questions, please do not hesitate to contact the undersigned at (562) 495-5777. We appreciate the opportunity to be of service to Santa Monica-Malibu Unified School District.

9 SIGNATORY

Respectfully submitted by:

Alta Environmental

Cesar Ruvalcaba
Project Manager

Reviewed by:

Alta Environmental

David R. Schack
Vice President, Building Sciences

Appendix A
Sample Inventories

Summary of PCBs Step-Out Sampling

CLIENT: Malibu High School
PROJECT NO: SMSD-16-6543
PROJECT: Building E, Malibu High

Building Name	Type of Window or Door	Sample Number	Sample Description	Sample Location	Photograph Number	Total PCBs (mg/kg)
E	Exterior window	X-9-9	Stucco	Window exterior room 9, top of window	2	0.278 Aroclor 1254
E	Exterior window	X-9-10	Stucco	Window exterior room 10, top of window	8	None Detected
E	Exterior window	I-12-W10	Plaster	Window interior room 10, bottom of window	7	None Detected
E	Exterior window	I-12-W9	Plaster	Window interior room 9, bottom of window	1	None Detected
E	Exterior Door	X-12-9	Stucco	Door exterior room 9, side fo door	4	None Detected
E	Exterior Door	X-12-10	Stucco	Door exterior room 10, side fo door	6	None Detected
E	Exterior Door	I-12-9	Plaster	Door interior room 9 , side fo door	3	None Detected
E	Exterior Door	I-12-10	Plaster	Door interior room 10, side fo door	5	None Detected

Summary of PCBs Step-Out Sampling

CLIENT: Malibu High School
PROJECT NO: SMSD-16-6543
PROJECT: Building E, Malibu High

Building Name	Type of Window or Door	Sample Number	Sample Description	Sample Location	Photograph Number	Total PCBs (mg/kg)
Duplicate QA/QC Samples						
E	Exterior window	I-12-W10-DUP	Plaster	Window interior room 10	7	None Detected
Split Duplicate QA/QC Samples						
E	Exterior window	I-12-9-SPT	Plaster	Door interior room 9	3	None Detected

Appendix B

Laboratory Reports

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

Date: December 7, 2016

Mr. Cesar Ruvalcaba
Alta Environmental
3777 Long Beach Blvd, Annex Building
Long Beach, CA 90807
Tel:(562)495-5777 Email:Cesar.Ruvalcaba@altaenviron.com

Project: **SMSD-16-6522**
Lab I.D.: **161130-49 through -59**

Dear Mr. Ruvalcaba:

The **analytical results** for the solid samples, received by our laboratory on November 30, 2016, are attached. The samples were received intact, and accompanying chain of custody.

Enviro-Chem appreciates the opportunity to provide you and your company this and other services. Please do not hesitate to call us if you have any questions.

Sincerely,

Curtis Desilets
Vice President/Program Manager

Andy Wang
Laboratory Manager

Enviro – Chem, Inc.
1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909) 590-5905 Fax (909) 590-5907

LABORATORY REPORT

CUSTOMER: **Alta Environmental**
3777 Long Beach Blvd, Annex Building, Long Beach, CA 90807
Tel:(562)495-5777 Email:Cesar.Ruvalcaba@altaenviron.com
PROJECT: **SMSD-16-6522**

DATE SAMPLED:11/29/16
MATRIX:SOLID
REPORT TO:MR. CESAR RUVALCABA

DATE RECEIVED:11/30/16
DATE EXTRACTED:12/05/16
DATE ANALYZED:12/05&06/16
DATE REPORTED:12/07/16

PCBs ANALYSIS
METHOD: EPA 3540C/8082
UNIT: mg/Kg = MILLIGRAM PER KILOGRAM = PPM

SAMPLE I.D.	LAB I.D.	PCB-1016	PCB-1221	PCB-1232	PCB-1242	PCB-1248	PCB-1254	PCB-1260	TOTAL PCBs*	DF
X-9-9	161130-49	ND	ND	ND	ND	ND	0.278	ND	0.278	10
X-12-9	161130-50	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-9	161130-51	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-W9	161130-52	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-9 SPT	161130-53	ND	ND	ND	ND	ND	ND	ND	ND	10^
X-12-10	161130-54	ND	ND	ND	ND	ND	ND	ND	ND	10^
X-9-10	161130-55	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-10	161130-56	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-W10	161130-57	ND	ND	ND	ND	ND	ND	ND	ND	10^
I-12-W10-Dup	161130-58	ND	ND	ND	ND	ND	ND	ND	ND	10^
Rinse Set-E	161130-59	ND	ND	ND	ND	ND	ND	ND	ND	1
Method Blank		ND	ND	ND	ND	ND	ND	ND	ND	1
	PQL	0.01	0.01	0.01	0.01	0.01	0.01	0.01	0.01	

COMMENTS
DF = Dilution Factor
PQL = Practical Quantitation Limit
Actual Detection Limit = DF X PQL
ND = Non-Detected Or Below the Actual Detection Limit
^ = Actual Detection Limit Raised Due To Limited Sample
* = Sum of the PCB 1016, 1221, 1232, 1242, 1248, 1254 and 1260
*** = The concentration exceeds the TTLC Limit of 50, and the sample is defined as hazardous waste as per CCR-TITLE 22 (if marked)

Data Reviewed and Approved by: _____
CAL-DHS ELAP CERTIFICATE No.: 1555

Enviro-Chem, Inc.

1214 E. Lexington Avenue, Pomona, CA 91766 Tel (909)590-5905 Fax (909)590-5907

EPA 8082 QA/QC Report

Matrix: **Soil/Solid/Sludge** Date Analyzed: 12/5-6/2016

Unit: mg/Kg(PPM)

Matrix Spike (MS)/Matrix Spike Duplicate (MSD)

Spiked Sample Lab I.D.: 161205-LCS1/2

Analyte	S.R.	spk conc	MS	%REC	MSD	%REC	%RPD	ACP %RPD	ACP %REC
PCB (1016+1260)	0.000	0.100	0.088	**88%**	0.080	**80%**	**9%**	**0-20%**	**70-130**

Lab Control Spike (LCS) Recovery:

Analyte	spk conc	LCS	% REC	ACP %REC
PCB (1016+1260)	0.100	0.092	**92%**	**75-125**

Surrogate Recovery	ACP%	ACP%	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.		MB	161130-49	161130-50	161130-51	161130-52	161130-53	161130-54
Tetra-chloro-meta-xylene	50-150	108%	119%	110%	122%	131%	126%	125%
Decachlorobipneyl	50-150	67%	75%	66%	79%	80%	84%	81%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	161130-55	161130-56	161130-57	161130-58	161130-59	161130-60	161130-61	161130-62
Tetra-chloro-meta-xylene	102%	113%	109%	131%	127%	123%	112%	111%
Decachlorobipneyl	66%	84%	70%	84%	73%	71%	88%	69%

Surrogate Recovery	%REC	%REC	%REC	%REC	%REC	%REC
Sample I.D.	161130-65	161130-66	16130-68	161130-71	161130-72	161130-73
Tetra-chloro-meta-xylene	122%	126%	112%	115%	119%	131%
Decachlorobipneyl	68%	77%	69%	71%	76%	82%

S.R. = Sample Result

spk conc = Spike Concentration

%REC = Percent Recovery

ACP %RPD = Acceptable Percent RPD Range

ACP %REC = Acceptable Percent Recovery Range

** = Surrogate fail due to matrix interference (If Marked)*

Note: *LCS, MS, MSD are in control therefore results are in control.*

Analyzed and Reviewed By: _____

Final Reviewer: _____

Enviro-Chem, Inc. Laboratories
1214 E. Lexington Avenue,
Pomona, CA 91766
Tel: (909) 590-5905 Fax: (909) 590-5907
CA-DHS ELAP CERTIFICATE #1555

Turnaround Time
0 Same Day
0 24 Hours
0 48 Hours
0 72 Hours
0 1 Week (Standard)
Other:

SAMPLE ID	LAB ID	SAMPLING DATE	SAMPLING TIME	MATRIX	No. OF CONTAINERS	TEMPERATURE	PRESERVATION	EPA method 8082 (PCB's)	Misc./PO#
					Analysis Required				COMMENTS
X-9-9	161130-49	11/29/16	2000		1		ice	x	
X-12-9	-50	"	2003		"		"	"	
I-12-9	-51	"	2005		"		"	"	
I-12-W9	-52	"	2011		"		"	"	
I-12-9-SPT	-53	"	2007		"		"	"	
X-12-10	-54	"	2020		"		"	"	
X-9-10	-55	"	2022		"		"	"	
I-12-10	-56	"	2030		"		"	"	
I-12-W10	-57	"	2033		"		"	"	
I-12-W10-DUP	-58	"	2033		"		"	"	
Rinse set-E	-59	"	2052		4oz				

Company Name: Alta Environmental
Address: 3777 Long Beach Blvd, Annex Bldg
City/State/Zip: Long Beach, CA, 90807

Project Contact: Cesar Ruvalcaba
Cesar.Ruvalcaba@altaenviron.com
Tel: 562-495-5777
Fax/Email:

Sampler's Signature: F. Ruvalcaba / T. Rizzani
Project Name/ID: SMSD-16-6522

Relinquished by: F. Ruvalcaba	Received by: T. Rizzani	Date & Time: 11/29/16 2300	Instructions for Sample Storage After Analysis:
Relinquished by: T. Rizzani	Received by: Curtis Desilets	Date & Time: 11/30/16 950	O Dispose of O Return to Client O Store (30 Days)
Relinquished by: Curtis Desilets	Received by:	Date & Time: 12/1/16 1145	O Other:

CHAIN OF CUSTODY RECORD

Date: 11-29-16

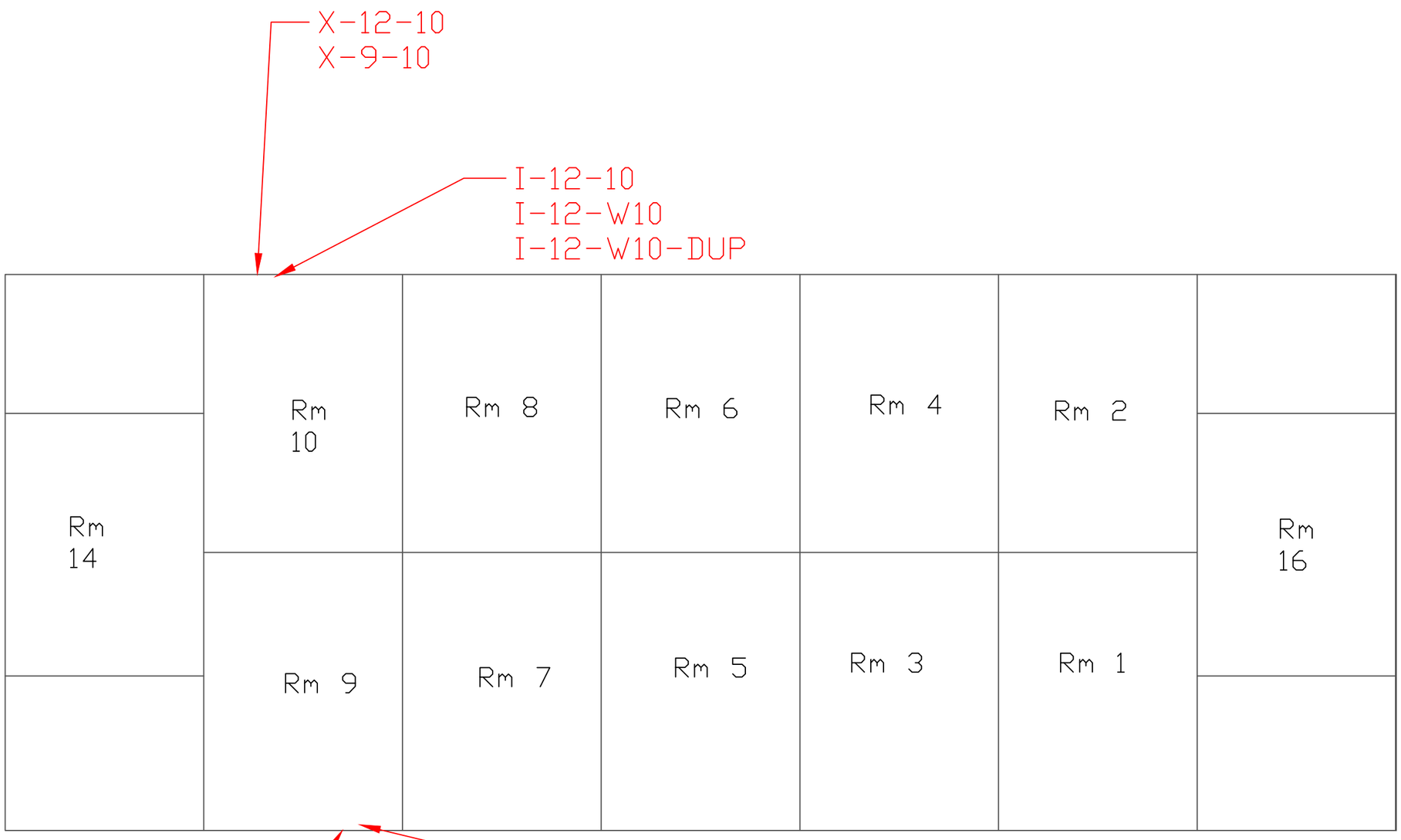
WHITE WITH SAMPLE • YELLOW TO CLIENT

Appendix C

Sample Location Maps

Building E- Malibu High School

30215 Morning View Drive, Malibu, California



Sample Location Map

CLIENT: Santa Monica School District	
SITE: Malibu High School 30215 Morning View Drive, Malibu, California	
DRAWN: TR	APPROVED.: CR
SCALE: None	DATE: Dec. 2016
PROJECT NO.: SMSD-16-6543	

ALTA ENVIRONMENTAL

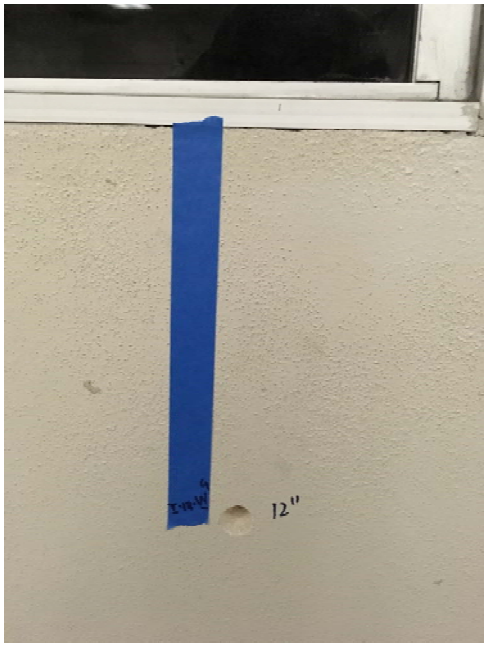
3777 Long Beach Blvd. Annex Bldg. Long Beach, California 90807
P: (562) 495-5777 ◆ F: (562) 495-5877 ◆ www.altaenviron.com

Appendix D

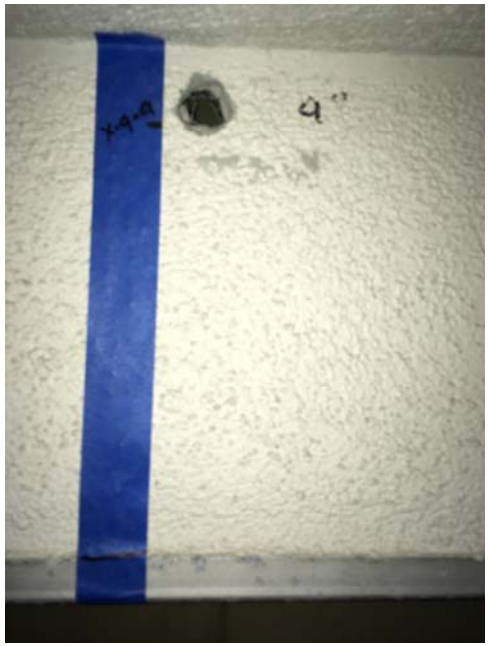
Photographs

Sampling Photos

I-12-W9 **Photo #1**



X-9-9 **Photo #2**



Sampling Photos

I-12-9

I-12-9-SPT **Photo #3**

X-12-9 **Photo #4**

Sampling Photos

I-12-10 **Photo #5**

X-12-10 **Photo #6**

Sampling Photos

I-12-W10

I-12-W-10-DUP **Photo #7**

X-9-10 **Photo #8**