

## ASBESTOS AND LEAD SURVEY BEVERLY HILLS FIRE STATION NO. 2 1100 COLDWATER CANYON DRIVE BEVERLY HILLS, CALIFORNIA 90210



## **PREPARED FOR:** City of Beverly Hills 345 North Foothill Road Beverly Hills, California 90210

## **PREPARED BY:**

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> January 9, 2017 Project No. 209914001

> > YEARS

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January 9, 2017 Project No. 209914001

Ms. Mandana Motahari City of Beverly Hills 345 North Foothill Road Beverly Hills, California 90210

Subject: Asbestos and Lead Survey Beverly Fire Station No. 2 1100 Coldwater Canyon Drive Beverly Hills, California 90210

Dear Ms. Motahari:

In accordance with our proposal dated October 11, 2016 and your authorization, Ninyo & Moore has performed an asbestos and lead survey for the Beverly Hills Fire Station No. 2 (site) which is planned for renovations. The site is at 1100 Coldwater Canyon Drive, Beverly Hills, California. The attached report presents our methodology, findings, conclusions, and recommendations regarding our survey.

We appreciate the opportunity to be of service to you on this important project.

Sincerely, NINYO & MOORE

Michael S. Cushner Senior Project Environmental Scientist Certified Asbestos Consultant No. 11-4711 Lead Inspector/Risk Assessor #16953

MSC/RSK/sc

Distribution: (1) Addressee (via e-mail)

R. Scott Kurtz Principal Environmental Scientist Director, Environmental Sciences

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## 1. INTRODUCTION

In accordance with our proposal dated October 11, 2016 and your authorization, Ninyo & Moore has performed an asbestos and lead survey in support of the upcoming renovation activities at the Beverly Hills Fire Station No. 2 at 1100 Coldwater Canyon Drive, Beverly Hills, California (site; Figure 1). This report has been prepared in accordance with generally accepted environmental science and engineering practices. This report is based on conditions at the site at the time of the sampling activities and provides documentation of our findings and recommendations.

## 2. PURPOSE AND SCOPE OF SERVICES

The objective of the asbestos and lead surveys is to provide and document information about current conditions within the areas of the structure planned for demolition regarding the potential presence of asbestos containing materials (ACMs) and lead containing surfaces (LCS) which may be disturbed during upcoming renovation activities. For the purposes of this assessment, LCS refers to both lead-based paint (LBP) and other potential lead-containing materials, as defined by the California Department of Public Health (CDPH) and United States Department of Housing and Urban Development (HUD).

The scope of services we performed for the study is identified below.

- Performed a visual reconnaissance of the areas within the scope of work to evaluate the possible presence of ACMs and LCSs.
- Collected 21 bulk samples and submitted these samples to an independent laboratory for analysis of asbestos content. Samples were analyzed in accordance with the United States Environmental Protection Agency (EPA) recommended method of Polarized Light Microscopy (PLM) in accordance with EPA Test Method 600/R-93/116 July 93.
- Collected 79 X-Ray fluorescence (XRF) readings of potential LCS.
- Prepared a field drawing showing LCS sampling locations.
- Prepared this survey report which presents our data and summarizes field activities, evaluated materials, and locations. This report includes sample location maps, a general site description, laboratory testing information, laboratory test results, and conclusions and recommendations.

## 3. SITE BUILDING DESCRIPTION

The area within the structure planned for renovations comprises 1,200 square feet. The interior walls are drywall. Ceilings include drywall and drop-in ceiling panels in some areas. Flooring areas are either concrete, floor tiles, or carpeting. Ductwork within the ceiling plenum was observed to be fiberglass.

## 4. FIELD LIMITATIONS

Since non-destructive sampling techniques were used, there is a possibility that additional ACMs and LCSs may be encountered in inaccessible areas (e.g., interstitial wall and ceiling spaces) during building renovation activities.

## 5. ASBESTOS SAMPLE COLLECTION AND LABORATORY ANALYSIS

The asbestos survey was performed on December 9, and 29, 2016, by Mr. Daniel Gonzales, a California Department of Occupational Safety and Health (DOSH) Site Surveillance Technician. The survey was performed under the direct supervision of Mr. Michael Cushner, a DOSH Certified Asbestos Consultant. Consultant certificates are presented in Appendix A.

## 5.1. Asbestos Survey

The survey inspection and sampling procedures were performed in accordance with the guidelines published by the EPA in 40 Code of Federal Regulations (CFR) Part 763 Subpart E, October 30, 1987 (Asbestos Hazard Emergency Response Act [AHERA]); the EPA guidance document "Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985); the National Emission Standards for Hazardous Air Pollutants (NESHAP; 40 CFR Part 61, subpart M); and the South Coast Air Quality Management District (SCAQMD) Rule 1403.

The survey consisted of three parts including: visual inspection, sampling, and quantification of the building materials.

## 5.1.1. Visual Inspection

Initial observations were made throughout the structures to evaluate the presence and condition of accessible suspect materials. Materials which were similar in general appearance were grouped into homogeneous sampling areas (areas in which the materials are uniform in color, texture, construction, or application date), as recommended by the EPA. Each homogeneous area was observed for material type, location, condition, and friability.

In accordance with the EPA and AHERA, suspect materials were placed in one of three categories:

- Surfacing Materials materials generally applied via sprayed or trowel methods,
- Thermal Systems Insulation (TSI) materials generally applied to various mechanical systems, or
- **Miscellaneous Materials** any materials which do not fit in the Surfacing or TSI classifications.

If asbestos is identified in a sample from a homogeneous area, the entire homogeneous area is considered to contain asbestos.

Representative samples were collected from each homogeneous area within the survey area, except areas that were inaccessible, or areas of assumed ACM, within the limitations of the survey.

## Friability Classifications

The definition of friability is any material containing more than one percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. The EPA's NESHAP regulation has different material categories for ACMs. These categories are used when demolition or renovation projects are being conducted. Each identified suspect homogeneous material was placed in one of the following EPA classifications:

- **Category I Non-friable** NESHAP defines a Category I non-friable ACM as packing, gaskets, resilient floor covering (except sheet flooring products which are considered friable), and asphalt roofing products which contain more than one percent asbestos.
- **Category II Non-friable** NESHAP defines a Category II non-friable ACM as any material, except for Category I non-friable ACM, which contains more than one percent asbestos and cannot be reduced to a powder by hand pressure when dry.
- **Regulated Asbestos Containing Material (RACM)** is (a) friable asbestos material, (b) Category I non-friable ACM that has become friable, (c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

## 5.1.2. Sampling Procedures

Following the walkthrough, the inspector collected selected samples of accessible materials identified as suspect ACM. EPA, AHERA, NESHAP, and SCAQMD guidelines were used to determine the sampling protocol. Sampling locations were chosen to be representative of the homogeneous material. A total of 21 samples of suspect ACMs were collected. Samples of surfacing material were collected in general accordance with the EPA sampling protocol outlined in EPA 560/5-85-030a, October 1985. Representative samples were taken from already damaged areas or areas which were the least visible. Samples of miscellaneous materials were collected as randomly as possible, while attempting to perform sampling in already damaged areas whenever possible, so as to minimize disturbance of the material. Generally, three samples of each homogeneous miscellaneous materials and TSI were collected, if present.

## 5.1.3. Quantification

Quantities of accessible and/or exposed building materials that were suspected of containing asbestos were estimated by taking approximate measurements in the field. Quantities are presented in square feet or linear feet to be used as a guide for contractor

estimates on bidding for abatement activities. It is the abatement contractor's responsibility to confirm quantities prior to bidding and removal.

## 5.2. Asbestos Laboratory Analysis Procedures

Analysis was performed at EMLAB P&K (EMLAB), Irvine, California. EMLAB is a National Volunteer Laboratory Accreditation Program accredited laboratory. A chain-of-custody, documenting the possession and transfer of the samples from the time they were collected until analyzed and stored, was submitted with the bulk samples. The original chain-of-custody accompanied the materials. Custody documentation began at the time samples were collected and each transferor retained a copy of the chain-of-custody record.

Analysis was performed by preparing the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples were mounted on slides and then analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, paper, etc.), and non-fibrous constituents. Refractive indices, morphology, color, pleochroism, birefringence, extinction characteristics, and signs of elongation identified asbestos. The same characteristics were used to identify the non-asbestos constituents.

The microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample, using a stereoscope. The bulk samples were analyzed by PLM with dispersion staining as described by the method of the determination of asbestos in bulk insulation, EPA/600/R-93/116, July 1993. This is a standard method of analysis in optical mineralogy and the currently accepted method for the determination of asbestos in bulk samples. A suspect material is immersed in a solution of known refractive index and subjected to illumination by polarized light. The characteristic color displays which result enable mineral identification.

## 6. LCS SURVEY

The LCS survey was performed on December 9, and 29, 2016, by Mr. Matt Gonzales, a CDPH Lead-Related Construction (LRC) Sampling Technician. The survey was performed under the



direct supervision of Mr. Michael Cushner, a CDPH LRC Inspector/Assessor and Project Monitor. Consultant certificates are presented in Appendix A.

The survey was conducted using a portable Niton XRF spectrum analyzer in accordance with accepted environmental science and engineering practices. The protocol used for selecting components and sampling locations was that contained in the federal HUD "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing" (Chapter 7 "Lead-Based Paint Inspection"), except the inspection was limited to accessible materials and once a pattern was recognized for the component results, fewer readings for each component were collected.

The XRF analyzer used for the testing is a direct-reading instrument that determines the concentration of lead in surfaces by subjecting the surfaces to energy from a small radioactive source. The instrument works by analyzing the absorption of X-Rays by the paint being measured. The instrument was calibrated to the manufacturer's specifications and was also verified, at least every four hours and at the beginning and completion of each set of readings, against known lead sample standards produced by the National Institute of Standards and Testing. The XRF analyzer measures lead in units of milligrams of lead per square centimeter (mg/cm<sup>2</sup>) of tested surface. In Los Angeles County, paint is considered classified as LBP if it contains 0.7 mg/cm<sup>2</sup> or more of lead.

## 7. SURVEY AND ASSESSMENT RESULTS

The following sections describe the survey results.

## 7.1. Asbestos Results Summary

In the state of California, DOSH regulations define asbestos containing construction materials (ACCMs) as being present if at least one sample from a homogeneous area contains asbestos content of greater than one tenth of 1 percent (>0.1 percent). Materials in which no asbestos was detected are defined in the laboratory report as "None detected." Materials containing asbestos, but in amounts less than 1 percent, are defined as containing "trace" amounts and for the purpose of this report are assumed to be ACCM. Inaccessible

suspect ACMs that are suspect of being ACM or ACCM, are noted to be ASSUMED asbestos containing.

Based on observations and the analytical results of bulk samples collected during the survey, ACMs were not detected within the areas of the structure within the requested scope of work. The building materials sampled which were found to be non-asbestos containing are described below in Table 1. A copy of the laboratory analytical report and chain-of-custody record is presented in Appendix B. The field drawing showing sampling locations of the materials collected is presented in Appendix C. General photographic documentation of the materials sampled is presented in Appendix D.

Sample Material Description/Estimated Quantity	Sample Location
Drywall with joint compound	Throughout
12" x 12" blue vinyl floor tile with mastic	Hallway and kitchen
Blue wall cove base	Hallway and kitchen
Caulking	Exterior windows
Sealant	Exterior windows
Mastic under carpet	Lounge and Captains Bedroom
2' x 2' ceiling tiles	Hallway
Notes:	
' – foot	
"-inch	

 Table 1 – Non Asbestos Containing Materials Sampled

## 7.2. Lead-Containing Surfaces Summary

Federal efforts to regulate LBP began with the Lead-Based Paint Poison Prevention Act in 1971. In 1973, the Consumer Product Safety Commission (CPSC) defined LBP as paint having lead content equal to or greater than 0.5 percent by weight in a dry film of newly applied paint. In 1978, the CPSC lowered the allowable lead levels in new paint to 0.06 percent and in 2010 the level was lowered to 0.0009 percent. HUD developed guidelines relating to HUD facilities that specified lead content of 0.5 percent as an action level in determining the need for corrective action. Federal and State DOSH regulations do not differentiate when the statute applies by the amount of lead in paint, rather the activities, or tasks, define when the regulation is in effect. Both Federal and State standards use the term

"trigger task" activities. In the work place, employers must make certain assumptions of the exposure levels and comply with regulations based on the level of disturbance rather than the lead level.

A total of 79 XRF readings were collected from the representative testing combinations (e.g., unique combination of room equivalent, building component, and substrate) within the structure. LCSs were detected within the structure planned for renovations. Building components with lead content greater than 0.7 mg/cm<sup>2</sup> and their estimated quantities are presented below in Table 2. A summary of the XRF analysis data for the building components tested, including the XRF results, is included in the attached Table 3. Building components which exceeded the 0.7 mg/cm<sup>2</sup> action level and their associated XRF reading numbers are presented on the field drawing presented in Appendix C. General photographic documentation is presented in Appendix D.

Please note that quantities of LCSs are approximate. It is the abatement contractor's responsibility to confirm quantities prior to bidding and removal activities.

Room/Area	Component	Substrate	Condition	Color	Approximate Quantity
Reception office, Kitchen, Captain's Restroom (including exterior)	Window frames	Metal	Intact	Black	6 each
Kitchen	Window frame	Metal	Intact	Brown	1 each
Kitchen	East wall	Drywall	Intact	White	200 SF
Kitchen, Captains Restroom	Doors	Wood	Intact	Red	3 each
Kitchen, Lounge, Bedroom, Captains Restroom	Door frames	Metal	Intact	Brown	6 each
Apparatus	Floor	Concrete	Intact	Beige	2,000 SF
Exterior	Window frame	Metal	Intact	Black	4 each
Exterior (Reception office)	Door	Metal	Intact	Brown	1 each

 Table 2 – Lead Containing Surfaces Summary

## 8. **RECOMMENDATIONS**

The following recommendations are provided:

## 8.1. Asbestos

• If additional suspect ACMs are found to be present within the inaccessible locations during renovation activities, samples should be collected and analyzed for asbestos content in order to determine appropriate handling requirements.

## 8.2. Lead

- The identified LCSs should not be disturbed. Removal activities should be performed by a licensed abatement contractor with certified lead personnel. All lead related removal activities should be performed in accordance with the DOSH Lead in Construction Standard, Title 8 California Code of Regulations (CCR) 1532.1.
- Proper LCS waste stream categorization is required. Prior to any renovation activities, a • composite sample of the representative LCS material should be analyzed for total lead for comparison with the Total Threshold Limit Concentration in accordance with EPA reference method SW-846. If the concentration of total lead is greater than or equal to 1,000 mg/kg, the LCS waste material must be disposed at a landfill which can receive such wastes. If the concentration is less than 50 mg/kg the sample may be disposed as construction debris, if it is to remain in California. If the total lead result is greater than or equal to 50 mg/kg and less than 1,000 mg/kg, the sample must be further analyzed for soluble lead by the Waste Extraction Test for comparison with the Soluble Threshold Limit Concentration as described in Title 22 CCR 66261.24a. Additionally, if the result is greater than or equal to 100 mg/kg the sample must be further analyzed for leachable lead by the Toxicity Characteristic Leaching Procedure for comparison with the Resource Conservation and Recovery Act (RCRA) limits. Based on the results of the soluble and leachable analysis the waste material may require disposal as a RCRA-Hazardous waste or non-RCRA- (California-) Hazardous waste.
- Lead abatement monitoring consulting services should be performed by a third party environmental consultant, to include oversight of abatement contractor activities, daily air monitoring, clearances, and preparation of a closeout report summarizing the abatement activities.

## 9. LIMITATIONS

Ninyo & Moore's opinions and recommendations regarding environmental conditions, as presented in this report, are based on limited sampling and chemical analysis. Further assessment of potential adverse environmental impacts may be accomplished by a more comprehensive assessment. The samples collected and used for testing, and the observations made, are believed to be representative of the area(s) evaluated. However, if additional suspect ACMs or LCSs are encountered during renovation activities, these materials should be sampled by a qualified



personnel, and analyzed for content prior to further disturbance. In addition, please note that quantities of ACMs and LCSs are approximate. These numbers should be confirmed prior to removal or repair activities.

The environmental services described in this report have been conducted in general accordance with current regulatory guidelines and the standard-of-care exercised by environmental consultants performing similar work in the project area. No warranty, expressed or implied, is made regarding the professional opinions presented in this report. Variations in site conditions may exist and conditions not observed or described in this report may be encountered during subsequent activities.

This document is intended to be used only in its entirety. No portion of the document, by itself, is designed to completely represent any aspect of the project described herein. Ninyo & Moore should be contacted if the reader requires any additional information, or has questions regarding content, interpretations presented, or completeness of this document.

The environmental interpretations and opinions contained in this report are based on the results of laboratory tests and analyses intended to detect the presence and concentration of specific chemical or physical constituents in samples collected from the subject site. The testing and analyses have been conducted by an independent laboratory which is certified by the State of California to conduct such tests. Ninyo & Moore has no involvement in, or control over, such testing and analysis. Ninyo & Moore, therefore, disclaims responsibility for any inaccuracy in such laboratory results.

Our conclusions, recommendations, and opinions are based on an analysis of the observed site conditions. It should be understood that the conditions of a site can change with time as a result of natural processes or the activities of man at the subject site or nearby sites. In addition, changes to the applicable laws, regulations, codes, and standards of practice may occur due to government action or the broadening of knowledge. The findings of this report may, therefore, be invalidated over time, in part or in whole, by changes over which Ninyo & Moore has no control.

## 1100 Coldwater Canyon Drive Beverly Hills, California

Reading No.	Room	Floor	Side	Component	Substrate	Condition	Color	Action Level (mg/cm <sup>2</sup> )	Results	Approximate Quantity	Lead Reading (mg/cm <sup>2</sup> )
1				Standard Calibration		0.7	Positive		1.03		
2	Start			Standard Calibration	Check 1.04 +/-	0.06 mg/cm <sup>2</sup>		0.7	Positive		1.00
3				Standard Calibration	Check 1.04 +/-	0.06 mg/cm <sub>2</sub>		0.7	Positive		1.04
4	Reception office	G	В	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
5	Reception office	G	А	Door	Metal	Intact	Brown	0.7	Negative	NA	0.00
6	Reception office	G	А	Door frame	Metal	Intact	Brown	0.7	Negative	NA	0.00
7	Reception office	G	С	Door	Wood	Intact	Red	0.7	Negative	NA	0.21
8	Reception office	G	С	Door frame	Metal	Intact	Brown	0.7	Negative	NA	0.01
9	Reception office	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
10	<b>Reception office</b>	G	D	Window frame	Metal	Intact	Black	0.7	Positive	6 ea	1.80
11	<b>Reception office</b>	G	D	Window frame	Metal	Intact	Black	0.7	Positive	Same as No. 10	2.30
12	Kitchen	G	А	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
13	Kitchen	G	Α	Window frame	Metal	Intact	Brown	0.7	Positive	1 ea	1.80
14	Kitchen	G	Α	Cabinet	Wood	Intact	Brown	0.7	Negative	NA	0.07
15	Kitchen	G	D	Cabinet	Wood	Intact	Brown	0.7	Negative	NA	0.09
16	Kitchen	G	D	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.09
17	Kitchen	G	В	Wall	Sheetrock	Intact	White	0.7	Positive	200 SF	1.50
18	Kitchen	G	В	Door	Wood	Intact	Red	0.7	Positive	3 ea	1.40
19	Kitchen	G	В	Door frame	Metal	Intact	Brown	0.7	Positive	6 ea	1.90
20	Kitchen	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
21	Kitchen	G	С	Door	Wood	Intact	Red	0.7	Negative	NA	0.22
22	Kitchen	G	С	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.70
23	Kitchen	G	С	Cabinet	Wood	Intact	Brown	0.7	Negative	NA	0.05
24	Lounge	G	D	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
25	Lounge	G	А	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
26	Lounge	G	А	Sliding door	Metal	Intact	Black	0.7	Negative	NA	0.00
27	Lounge	G	А	Sliding door frame	Metal	Intact	Black	0.7	Negative	NA	0.00
28	Lounge	G	В	Wall	Sheetrock	Intact	Cream	0.7	Negative	NA	0.00
29	Lounge	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
30	Lounge	G	С	Door	Metal	Intact	Red	0.7	Negative	NA	0.16
31	Lounge	G	С	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.40
32	Captains bedroom	G	D	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00



## 1100 Coldwater Canyon Drive Beverly Hills, California

Reading No.	Room	Floor	Side	Component	Substrate	Condition	Color	Action Level (mg/cm <sup>2</sup> )	Results	Approximate Quantity	Lead Reading (mg/cm <sup>2</sup> )
33	Captains bedroom	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
34	Captains bedroom	G	В	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
35	Captains bedroom	G	В	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
36	Captains bedroom	G	А	Window frame	Metal	Intact	Black	0.7	Negative	NA	0.00
37	Captains bedroom	G	А	Door	Wood	Intact	Red	0.7	Negative	NA	0.00
38	Captains bedroom	G	С	Door frame	Metal	Intact	Brown	0.7	Negative	NA	0.20
39	Bedroom	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
40	Bedroom	G	А	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
41	Bedroom	G	А	Door	Wood	Intact	Red	0.7	Negative	NA	0.22
42	Bedroom	G	А	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.60
43	Hallway	G	А	Wall	Sheetrock	Intact	Beige	0.7	Negative	NA	0.00
44	Hallway	G	D	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
45	Hallway	G	В	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
46	Hallway	G	В	Door	Wood	Intact	Red	0.7	Negative	NA	0.00
47	Hallway	G	В	Door frame	Metal	Intact	Brown	0.7	Negative	NA	0.22
48	Hallway	G	D	Door	Wood	Intact	Red	0.7	Negative	NA	0.01
49	Hallway	G	D	Door frame	Metal	Intact	Brown	0.7	Negative	NA	0.22
50	Hallway	G	С	Wall	Sheetrock	Intact	White	0.7	Negative	NA	0.00
51	Apparatus	G	0	Floor	Concrete	Intact	Beige	0.7	Positive	2,000 SF	1.70
52	Apparatus	G	0	Floor	Concrete	Intact	Beige	0.7	Positive	Same as No. 51	2.10
53	Exterior	G	А	Rollup door	Metal	Intact	Grey	0.7	Negative	NA	0.30
54	Exterior	G	А	Rollup door	Metal	Intact	Grey	0.7	Negative	NA	0.10
55	Exterior	G	В	Roll up window frame	Metal	Intact	Black	0.7	Negative	NA	0.00
56	Exterior	G	В	Window frame	Metal	Intact	Black	0.7	Positive	Same as No. 10	1.70
57	Exterior	G	В	Window fill	Wood	Intact	Grey	0.7	Negative	NA	0.00
58	Exterior	G	С	Rollup door	Metal	Intact	Grey	0.7	Negative	NA	0.30
59	Exterior	G	С	Rollup door	Metal	Intact	Grey	0.7	Negative	NA	0.10
60	Exterior	G	С	Roll up window frame	Metal	Intact	Grey	0.7	Negative	NA	0.00
61	Exterior	G	Α	Window frame	Metal	Intact	Black	0.7	Positive	Same as No. 10	1.90
62	Exterior	G	С	Window frame	Metal	Intact	Black	0.7	Positive	Same as No. 10	2.10

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## 1100 Coldwater Canyon Drive Beverly Hills, California

Reading No.	Room	Floor	Side	Component	Substrate	Condition	Color	Action Level (mg/cm <sup>2</sup> )	Results	Approximate Quantity	Lead Reading (mg/cm <sup>2</sup> )
63	Exterior	G	Α	Door	Metal	Intact	Brown	0.7	Positive	1 ea	1.60
64	Exterior	G	А	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.60
65	Captains Restroom	G	С	Wall	Ceramic	Intact	Orange	0.7	Negative	NA	0.00
66	Captains Restroom	G	В	Wall	Ceramic	Intact	White	0.7	Negative	NA	0.01
67	<b>Captains Restroom</b>	G	D	Door	Wood	Intact	Red	0.7	Positive	Same as No. 18	1.30
68	Captains Restroom	G	D	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.60
69	<b>Captains Restroom</b>	G	С	Door	Wood	Intact	Red	0.7	Positive	Same as No. 18	1.40
70	<b>Captains Restroom</b>	G	С	Door frame	Metal	Intact	Brown	0.7	Positive	Same as No. 19	1.60
71	Captains Restroom	G	В	Window frame	Metal	Intact	Black	0.7	Positive	Same as No. 10	1.50
72	Captains Restroom	G	0	Floor	Ceramic	Intact	Multi	0.7	Negative	NA	0.00
73	Captains Restroom	G	А	Cabinet	Wood	Intact	White	0.7	Negative	NA	0.00
74	Captains Restroom	G	0	Ceiling	Sheetrock	Intact	White	0.7	Negative	NA	0.00
75	Patio	G	Α	Wall	Brick	Intact	Brown	0.7	Negative	NA	0.00
76	Patio	G	Α	Wall	Brick	Intact	Brown	0.7	Negative	NA	0.00
77				Standard Calibration	n Check 1.04 +/-	0.06 mg/cm <sup>2</sup>		0.7	Positive		1.00
78	End		Standard Calibration Check 1.04 +/- 0.06 mg/cm <sup>2</sup>						Positive		1.01
79			Standard Calibration Check 1.04 +/- 0.06 mg/cm <sup>2</sup>						Positive		0.99
Notes: EA - each	·										

## Table 3 - XRF Readings Summary

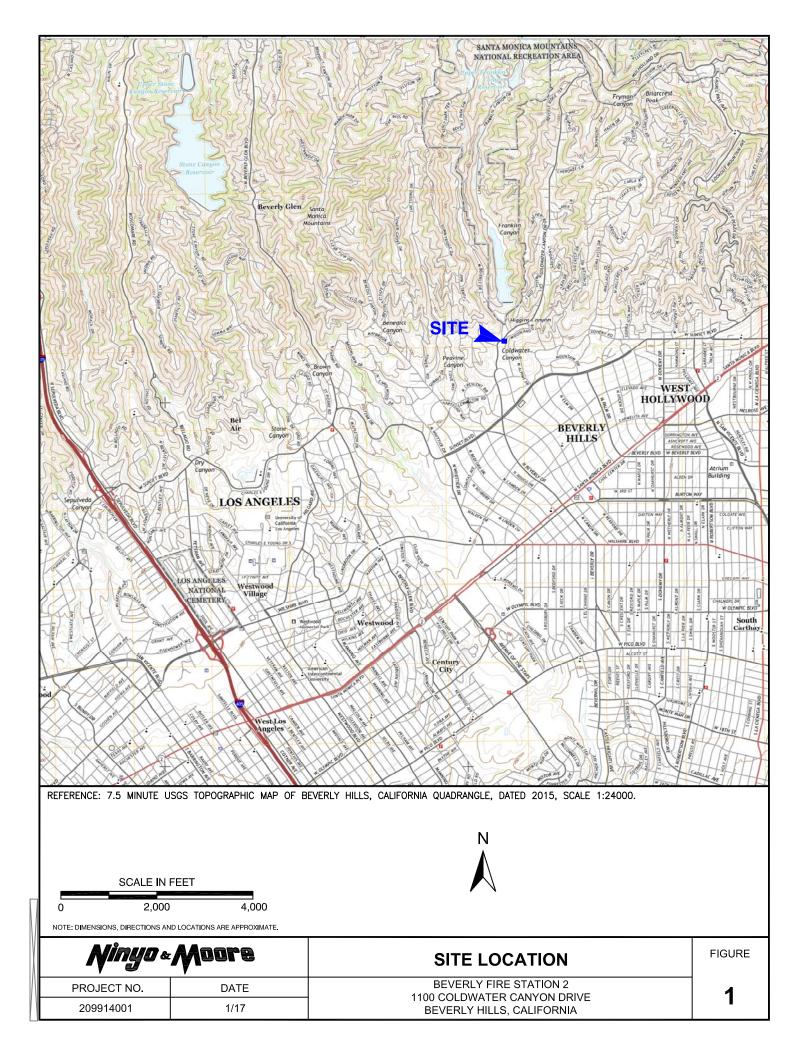
NA - not applicable

No. - number

SF - Square feet

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# APPENDIX A

# CONSULTANT CERTIFICATES







# State of California Division of Occupational Safety and Health Certified Site Surveillance Technician



# Daniel E Gonzales

Name

Certification No. 06-4103

Expires on \_\_\_\_\_\_11/15/17

This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et seq. of the Business and Professions Code.

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# **APPENDIX B**

# ASBESTOS ANALYTICAL RESULTS AND CHAIN-OF-CUSTODY RECORDS





Report for:

Mr. Mike Cushner Ninyo & Moore - Irvine 475 Goddard Suite 200 Irvine, CA 92618

Regarding: Project: 209914001; Beverly Hills-Fire Station 2, 1100 Cold Water Canyon Dr, Beverly Hills, CA EML ID: 1646009

Approved by:

Approved Signatory Ahmed Fageer

Dates of Analysis: Asbestos PLM: 12-14-2016 and 12-15-2016

Service SOPs: Asbestos PLM (EPA Methods 600/R-93/116 & 600/M4-82-020, SOP EM-AS-S-1267)

All samples were received in acceptable condition unless noted in the Report Comments portion in the body of the report. The results relate only to the items tested. The results include an inherent uncertainty of measurement associated with estimating percentages by polarized light microscopy. Measurement uncertainty data for sample results with >1% asbestos concentration can be provided when requested.

EMLab P&K ("the Company") shall have no liability to the client or the client's customer with respect to decisions or recommendations made, actions taken or courses of conduct implemented by either the client or the client's customer as a result of or based upon the Test Results. In no event shall the Company be liable to the client with respect to the Test Results except for the Company's own willful misconduct or gross negligence nor shall the Company be liable for incidental or consequential damages or lost profits or revenues to the fullest extent such liability may be disclaimed by law, even if the Company has been advised of the possibility of such damages, lost profits or lost revenues. In no event shall the Company's liability with respect to the Test Results exceed the amount paid to the Company by the client therefor.

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Client: Ninyo & Moore - Irvine C/O: Mr. Mike Cushner Re: 209914001; Beverly Hills-Fire Station 2, 1100 Cold Water Canyon Dr, Beverly Hills, CA 17461 Derian Ave, Suite 100, Irvine, CA 92614 (866) 888-6653 Fax (623) 780-7695 www.emlab.com

Total Samples Submitted

Date of Sampling: 12-09-2016 Date of Receipt: 12-12-2016 Date of Report: 12-15-2016

#### ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

	Total Samples Submitted: 15
	<b>Total Samples Analyzed:</b> 15
Total	Samples with Layer Asbestos Content > 1%: 0
Location: 01, Hallway N/E, sheetrock/joint compound	Lab ID-Version‡: 7660992-1
Sample Layers	Asbestos Content
White Joint Compound with Paint	ND
White Drywall	ND
<b>Composite Non-Asbestos Content:</b>	10% Cellulose
Sample Composite Homogeneity:	Poor
Location: 02, Kitchen S/W, sheetrock/joint compound	Lab ID-Version‡: 7660993-1
Sample Layers	Asbestos Content
White Joint Compound with Paint	ND
White Drywall	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Poor
Location: 03, Storage closet N/E, sheetrock/joint compo	Lab ID-Version‡: 7660994-1
Sample Layers	Asbestos Content
White Joint Compound with Paint	ND
White Drywall	ND
Composite Non-Asbestos Content:	10% Cellulose
Sample Composite Homogeneity:	Poor
	•
Location: 04, Hallway N/W, 12x12 vinyl floor tile, blue	Lab ID-Version‡: 7660995-1
Sample Layers	Asbestos Content
	ND
Blue Floor Tile	ND

The test report shall not be reproduced except in full, without written approval of the laboratory. The report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the federal government. EMLab P&K reserves the right to dispose of all samples after a period of thirty (30) days, according to all state and federal guidelines, unless otherwise specified.

Sample Composite Homogeneity: Moderate

Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Lab ID-Version #: 7660996-1

Lab ID-Version 1: 7660997-1

17461 Derian Ave, Suite 100, Irvine, CA 92614 (866) 888-6653 Fax (623) 780-7695 www.emlab.com

Client: Ninyo & Moore - Irvine C/O: Mr. Mike Cushner Re: 209914001; Beverly Hills-Fire Station 2, 1100 Cold Water Canyon Dr, Beverly Hills, CA

Date of Sampling: 12-09-2016 Date of Receipt: 12-12-2016 Date of Report: 12-15-2016

## ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

#### Location: 05, Hallway S/E, 12x12 vinyl floor tile, blue

Sample Layers	Asbestos Content
Blue Floor Tile	ND
Yellow Mastic	ND
Sample Composite Homogeneity:	Moderate

#### Location: 06, Kitchen N/E, 12x12 vinyl floor tile, blue

Sample Layers	Asbestos Content				
Blue Floor Tile	ND				
Yellow Mastic	ND				
Sample Composite Homogeneity: Moderate					

#### Location: 07, Hallway N/W, cove base, blue

Sample Layers	Asbestos Content			
Blue Baseboard	ND			
Off-White Mastic	ND			
Sample Composite Homogeneity: Moderate				

#### Location: 08, Hallway S/E, cove base, blue

Lab ID-Version 1: 7660999-1

Lab ID-Version 1: 7660998-1

Sample Layers	Asbestos Content					
Blue Baseboard	ND					
Off-White Mastic	ND					
Sample Composite Homogeneity: Moderate						

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Lab ID-Version<sup>‡</sup>: 7661000-1

Lab ID-Version 1: 7661001-1

Lab ID-Version<sup>‡</sup>: 7661002-1

Lab ID-Version 1: 7661003-1

17461 Derian Ave, Suite 100, Irvine, CA 92614 (866) 888-6653 Fax (623) 780-7695 www.emlab.com

Date of Sampling: 12-09-2016 Date of Receipt: 12-12-2016 Date of Report: 12-15-2016

## ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

Location: 09, Kitchen N/E, cove base, blue

Cold Water Canyon Dr, Beverly Hills, CA

Re: 209914001; Beverly Hills-Fire Station 2, 1100

Client: Ninyo & Moore - Irvine

C/O: Mr. Mike Cushner

Sample Layers	Asbestos Content				
Blue Baseboard	ND				
Off-White Mastic	ND				
Sample Composite Homogeneity: Moderate					

#### Location: 10, Ext N/W, window caulking

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Sample Layers	Asbestos Content
Black Caulk	ND
Sample Composite Homogeneity:	Moderate

## Location: 11, Ext N/W, window caulking

Sample Layers	Asbestos Content			
Black Caulk	ND			
Sample Composite Homogeneity:	Moderate			

#### Location: 12, Ext N/W, window caulking

Sample Layers	Asbestos Content				
Black Caulk	ND				
Sample Composite Homogeneity:	Moderate				

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17461 Derian Ave, Suite 100, Irvine, CA 92614 (866) 888-6653 Fax (623) 780-7695 www.emlab.com

Date of Sampling: 12-09-2016 Date of Receipt: 12-12-2016 Date of Report: 12-15-2016

## ASBESTOS PLM REPORT: EPA-600/M4-82-020 & EPA METHOD 600/R-93-116

#### Location: 13, Ext N/W, window sealant

Cold Water Canyon Dr, Beverly Hills, CA

Re: 209914001; Beverly Hills-Fire Station 2, 1100

Client: Ninyo & Moore - Irvine

C/O: Mr. Mike Cushner

Sample Layers	Asbestos Content				
Brown Sealant	ND				
Sample Composite Homogeneity:	Moderate				

#### Location: 14, Ext N/W, window sealant

Location. 14, Ext IV, Window Sealant					
Sample Layers	Asbestos Content				
Brown Sealant	ND				
Sample Composite Homogeneity: Moderate					

#### Location: 15, Ext N/W, window sealant

Lab ID-Version‡: 7661006-1

Lab ID-Version 1: 7661004-1

Lab ID-Version\*: 7661005-1

Sample Layers	Asbestos Content			
Brown Sealant	ND			
Sample Composite Homogeneity:	Moderate			

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Inhomogeneous samples are separated into homogeneous subsamples and analyzed individually. ND means no fibers were detected. When detected, the minimum detection and reporting limit is less than 1% unless point counting is performed. Floor tile samples may contain large amounts of interference material and it is recommended that the sample be analyzed by gravimetric point count analysis to lower the detection limit and to aid in asbestos identification.

Ninyo & Moore	Project Name	Sencelt H	rus- Fig		Date:Sampled: 1179/16	Laboratory	
475 Goddard, Suite 200	Address: ;;@@	- COW	782-040		Sampled By: Danie Gangeles		<u> </u>
Irvine, CA 92618	BEVERUY HE	002 سنرى	20		Sampled By:		
Tel:(949):75a:7070 Fax: (949) 759-7071	Project No: 27 Project Manager			Date Sampled:	Tel: Fax		
CHAIN OF CUSTODY INFORMATION:	Email: mcushner	@ninycanon	noore.com				
Relinquished By: (sign/print)		Company	Date	(.an 46) و me(iii + 6	Prozeitrasi Bys (signitati	rt)	Labora
Daniel , Druger Stayout Course		yo & Mapre	12/9/16	2000	Lucientleda 1 12	112/14 8:00	
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		Building Number	Sample Location	HA No,	Sample Description	Quantity (SF/LF/EA)	Friable (Y/N)	Condition
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			HETCHEN- STW					
	<u> </u>		STORIGE CLOSET - N/E					
	04		MALLANT - NIN	2	FUNCE TELE - BUE	rcos F		
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	06	· · · · · · · · · · · · · · · · · · ·	KETTCHEN - N/E					
	07		HALLMAN - N/W.	3	COVE BASE - BLUE	20010		
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·· LabiD	····Sa	ample ID		lumber	·   · · · · ·	· San	nple Location	<u>ن</u> ي . :	HA No.	Sar	nple Description	Quantity (SF/LF/EA)	Friable (Y/N)	Condition	
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520 Mission Street South Pasadena, CA 91030 Tel/Fax: (323) 254-9960 / (323) 254-9982 http://www.LATesting.com / pasadenalab@latesting.com

LA Testing Order:	321628218
Customer ID:	32ninm50
Customer PO:	
Project ID:	

Attention:	Michael Cushner	Phone:	(949) 795-2599
	Ninyo & Moore	Fax:	
	475 Goddard	Received Date:	12/29/2016 2:45 PM
	Suite 200	Analysis Date:	12/30/2016
	Irvine, CA 92618	Collected Date:	12/29/2016
Project:	Beverly Hills - Fire Station 1100 Cold Water Canyon Drive Beverly Hills CA		

### Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			Non-Ast	<u>estos</u>	Asbestos	
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Туре	
16	Lounge N/E - Carpet mastic	Yellow Non-Fibrous		100% Non-fibrous (Other)	None Detected	
321628218-0001		Homogeneous				
17	Captains Bedroom N/W - Carpet mastic	Yellow Non-Fibrous		100% Non-fibrous (Other)	None Detected	
321628218-0002		Homogeneous				
18	Captian bedroom N/W - Carpet mastic	Yellow Non-Fibrous		100% Non-fibrous (Other)	None Detected	
321628218-0003		Homogeneous				
19	Hallway N/W - 2x2 ceiling panel	Yellow Non-Fibrous	95% Glass	5% Non-fibrous (Other)	None Detected	
321628218-0004	<b>C</b> .	Homogeneous				
20	Hallway Center - 2x2 ceiling panel	White/Yellow Fibrous	80% Glass	20% Non-fibrous (Other)	None Detected	
321628218-0005	<b>C</b> .	Heterogeneous				
21	Hallway South - 2x2 ceiling panel	White/Yellow Fibrous	80% Glass	20% Non-fibrous (Other)	None Detected	
321628218-0006		Heterogeneous				

Analyst(s)

Roger Casillas (1) Rosa Mendoza (5)

Jerry Drapala Ph.D, Laboratory Manager or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by LA Testing South Pasadena, CA NVLAP Lab Code 200232-0, CA ELAP 2283

Initial report from: 12/30/2016 12:38:39

Address:           Irvine, CA 92618           Tel: (949) 753-7070           Fax: (949) 753-7071		Project Nar Address: }	ddress: HOO COLOWATER CANTAL CA			Date Sampled: 12/29/16 Sampled By: Sampled By:		Laboratory: RCVd	Laboratory: LA TESTENO RCVD CPOT Tel: LAL-ST Tel: Fax: 12.29.16 2:45PM		
		No: 209914001 Manager: Michael Cushner cushner@ninyoandmoore.com			Date Sampled: Tel: Fax: Z·2		Tel: LAC Fax: Z.20	9.16 2:45 PM			
			Company         Date         Time(24 hr.)           Ninyo & Moore         12/2.9/16         14444		'Received By: (sign/print)		Laboratory				
		9- X.ES			1444	€321628218					
LabID	Sample ID	Building Number	Sa	mple Location		HA No.	Sample Description	Quantity (SF/LF/EA)	Friable (Y/N)	Conditio	
	16	2	LOUNCE	NIE			CHRPET MLATTC	400 SF	N	600	
	17	11	CLETTINS	BEDROC	om N/w		~~	18	11	~	
	18	11		15			~	~~	~	~	
	19	11	HLUWLY	NIN	,		ZXZ CETETNE PAN	E BODSF	Y	~	
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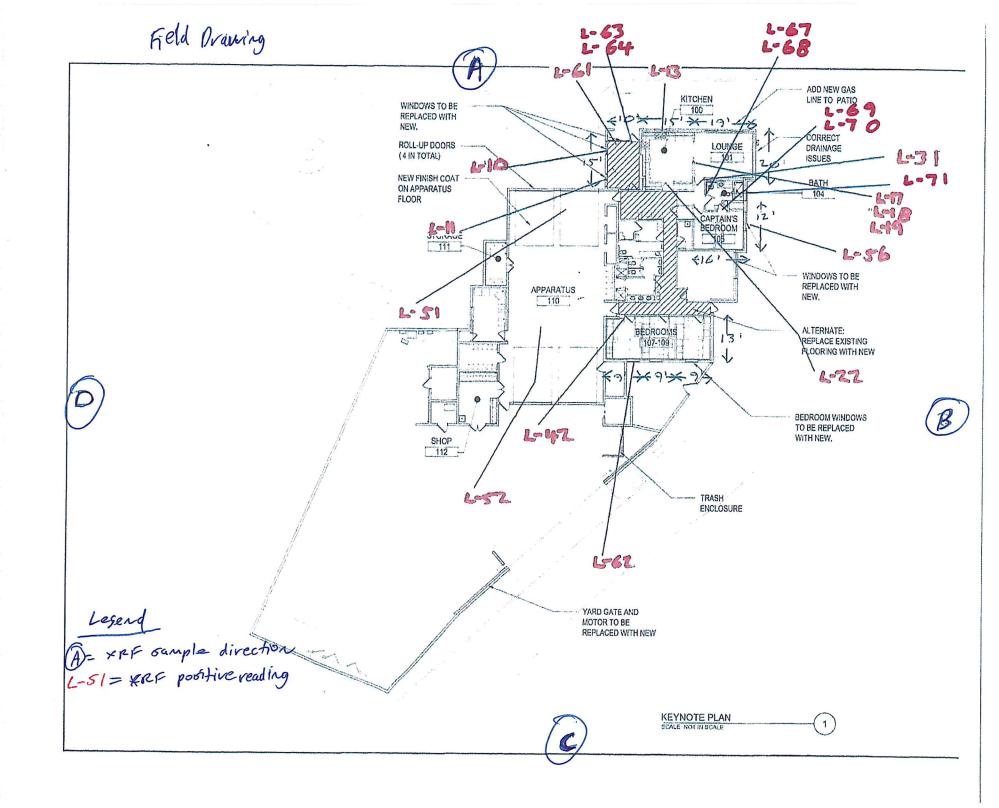
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Page 1 Of

# APPENDIX C

# FIELD DRAWING OF SAMPLING LOCATIONS





# APPENDIX D

# PHOTOGRAPHIC DOCUMENTATION





Photograph 1: View of Fire Station #2.



Photograph 2: View of lead containing brown exterior window frames.



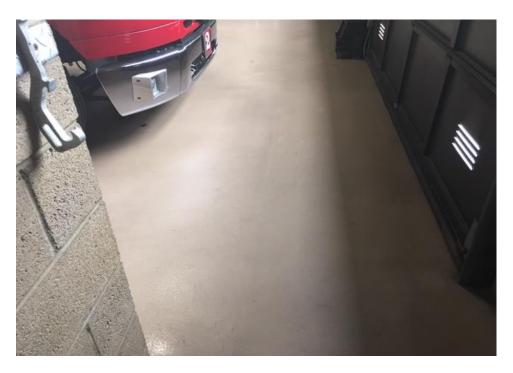
Photograph 3: View of representative lead containing red door and brown door frame.



Photograph 4: View of lead containing sliding brown door and brown door frame.



Photograph 5: View of lead containing white wall from kitchen location.



Photograph 6: View of lead containing gray flooring within Apparatus area.



Photograph 7: View of lead containing red door/ brown door frame within the Captain's restroom.



Photograph 8: View of lead containing black window frame within the Captain's restroom.