## ADDENDUM G

October 7, 2019

## **BIDDING AND CONTRACT DOCUMENTS**

FOR

Various Elevator Modernizations PROJECT NO. 112008 CONTRACT NO. 112008-LF-2019-129





The following changes, additions, or deletions shall be made to the following documents as indicated for this Project; and all other terms and conditions shall remain the same. Each bidder is responsible for transmitting this information to all affected subcontractors and suppliers before the Bid Deadline.

#### 1. INFORMATION AVAILABLE TO BIDDERS

Add the Entomology Asbestos and Lead Survey to Information Available to Bidders.

Add the PE/ Athletics Asbestos and Lead Survey to Information Available to Bidders.

Add the Spieth Hall North Asbestos and Lead Survey to Information Available to Bidders

Add the Spieth Hall South Asbestos and Lead Survey to Information Available to Bidders.

Add the Watkins Asbestos and Lead Survey to Information Available to Bidders.

Add the Webber Asbestos and Lead Survey to Information Available to Bidders.

#### 2. SPECIFICATION TABLE OF CONTENTS

**Delete** existing Specification Table of Contents and replace with the one issued in this Addendum.

#### 3. <u>SPECIFICATIONS</u>

**Add** Specification 02 8216, Hazardous Soil, Asbestos, Lead Abatement of Non-Friable Floor Tile, to the Specification Table of Contents.

#### END OF ADDENDUM



### **INFORMATION AVAILABLE TO BIDDERS**

The following information is made available for the convenience of bidders and is not a part of the Contract. The information is provided subject to the provisions of Article 3 of the General Conditions.

 The University of California has contracts for materials, equipment and/or services with the suppliers listed on the Office of the President Procurement Services website at: <u>http://www.ucop.edu/procurement-services/for-suppliers/ucop-designated-construction-agreements.html</u>

General Contractors or others submitting bids for University construction projects may enter into agreements with these suppliers that utilize the pricing and terms contained in the University-supplier agreements. The university does not represent or warrant that materials/equipment/services of these suppliers meet the requirements of the University's construction contracts.

Use of such suppliers shall not relieve Contractor from its obligation to meet all contractual requirements in any contracts with the University. The university will not be a party to any agreements with such suppliers and accepts no performance obligations or liability with respect to such agreements.

2. Reports:

Entomology Asbestos and Lead Survey <u>PE/ Athletics Asbestos and Lead Survey</u> <u>Spieth Hall North Asbestos and Lead Survey</u> <u>Spieth Hall South Asbestos and Lead Survey</u> <u>Watkins Asbestos and Lead Survey</u> <u>Webber Asbestos and Lead Survey</u>

3. Record Documents and As-Builts:

None

#### END OF INFORMATION AVAILABLE TO BIDDERS



Various Elevator Modernizations Project Number: 112008 Contract Number: 112008-LF-2019-129 Addendum G, October 7, 2019 AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 Phone 951 272-4731 Facsimile jp@ambientenv.com www.ambientenvinc.com

July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: Entomology Research Museum (Elevator Upgrade Project) University of Riverside, California. PO #SC108046-CH2 Project #112008

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced location. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected
Less Than 1,000 sq. ft.	3 – Samples
Between 1,000 & 5,000 sq. ft.	5 – Samples
Greater than 5,000 sq. Ft.	*7 – Samples

Sample Table-1

### \*The recommended number of samples per AHERA is nine for areas greater than 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample	Asbestos	Square	Location of Material	Friable	Damage
	Number	Content	Footage			
Drywall and	01	Non	N/A	Elevator Room	No	No
Joint	02	Detected				
Compound	03					
Exterior	04	Non	N/A	Throughout Exterior	No	No
Stucco	05	Detected		Walls		
	06					

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or

Location	Sample	Component	Substrate	Pbl	Condition
	Number			mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration				1.0	
Calibration				1.0	
Elevator Room	1	Wall	Drywall	0.0	N/A
Elevator Room	2	Wall	Drywall	0.0	N/A
Exterior	3	Wall	Stucco	0.0	N/A
Exterior	4	Wall	Stucco	0.0	N/A

 $0.06 \text{ mg/cm}^2$  in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above  $1.0 \text{ mg/cm}^2$ 

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for this changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property.

Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

Please contact the undersigned with your questions and/or comments regarding the sample result and/or location of material.

Sincerely, Signed for Ambient Environmental, Inc. by

John L. Payne CAC #93-1226

Attachments Appendix - A Appendix - B Appendix - C

Chain of Custody and Bulk Sample Log Laboratory Certification of Analysis Certification

## **APPENDIX A**

CHAIN OF CUSTODY AND BULK SAMPLE LOG



400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

	ASBESTOS BU	LK SAMPLE LOG Page	(
Client Nar	ne: ULR PPD		
Project Lo	eation: FARMULUSY	RASAArch Mys	Rym
Date:	7-21-15	chnician: $\int \partial h_{\mu} L f$	gn_
Project Nu	umber: <u>19-1489</u> F	Priority: ASAP 24 HR 3	-5 Days
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	FOOTAGE
	Clap An	Dyurn M Tom Compy	
<i>U</i> /	RIRUPER Nur	Vor compy	
02	(		
03	$\triangleleft F$	< F	
04	Fightor hous	R-FANGEr SPace 0	
or		[	
06	$\downarrow F$		
			l

Analytical Method: PLM: <u>></u> TEM: \_\_\_\_ Other: Chain of Custody Time Date Sampled By Time **Relinquished By** Date 11 SCD 07-26-19 Time **Received By** Date 115 to I Time **Relinquished By** Date Time **Received By** Date

## **APPENDIX B**

## LABORATORY CERTIFICATES OF ANALYSIS



**Final Report** 

Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) NVLAP Lab Code: 101459-1

Ambient Environmental Inc John Payne 400 N. Princeland Crt. Ste. 3 Corona, CA 92879 Job ID/Site: 19-1489; Entomolog	y Research Museum				Client ID: Report Numb Date Received Date Analyze Date Printed: First Reporte FALI Job ID: Total Sample	d: 07/26/1 d: 07/28/1 07/29/1 d: 07/29/1 d: 07/29/1 s 5697 s Submitted:	9 9 9 9
Date(s) Collected: 07/21/2019 Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Total Sample Percent in Layer	Asbestos Type	6 Percent in Layer
	51251702	Type	Eujer	Type	Lujer	rype	Eujer
01 Layer: White Drywall	51251702		ND				
Layer: Drywall Tape			ND				
Layer: White Skimcoat/Joint Cor	mpounds		ND				
Total Composite Values of Fibro	Part of the second second	Asbestos (ND)					
Cellulose (20 %) Fibrous Gla		Asbestos (IID)					
02	51251703						
Layer: White Drywall	51251705		ND				
Layer: Drywall Tape			ND				
Layer: White Skimcoat/Joint Cor	npounds		ND				
Total Composite Values of Fibro Cellulose (20 %) Fibrous Gla		Asbestos (ND)					
03	51251704						
Layer: White Drywall			ND				
Layer: Drywall Tape			ND				
Layer: White Skimcoat/Joint Cor	npounds		ND				
Total Composite Values of Fibro Cellulose (20 %) Fibrous Gla	-	Asbestos (ND)					
04	51251705						
Layer: Grey Cementitious Materi			ND				
Layer: White Cementitious Mater	rial		ND				
Layer: Paint			ND				
Total Composite Values of Fibro Cellulose (Trace)	us Components:	Asbestos (ND)					
05	51251706						
Layer: Grey Cementitious Materi			ND				
Layer: White Cementitious Mater	rial		ND				
Layer: Paint			ND				
Total Composite Values of Fibro Cellulose (Trace)	us Components:	Asbestos (ND)					

ample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
6	51251707	турс	Layer	Турс	Layer	турс	Layer
Layer: Grey Cementitious Material			ND				
Layer: White Cementitious Material			ND				
Layer: Paint			ND				

5 Jan Inda

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reporduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

2 of 2

## **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

GAVIN NEWSOM, Governor

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health Asbestos Certification & Training Unit 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov



310191226C

87

80

Ambient Environmental, Inc. John Lee Payne 400 Princeland Court, Suite 3 Corona CA 92879

May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff\_Ferrell Senidr Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant** 



Certification No. 93-1226 Expires on 06/24/20

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





AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* jp@ambientenv.com www.ambientenvinc.com

July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: PE Building (Elevator Upgrade Project) University of Riverside, California.

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced locations. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected
Less Than 1,000 sq. ft.	3 – Samples
Between 1,000 & 5,000 sq. ft.	5 – Samples
Greater than 5,000 sq. Ft.	*7 – Samples

Sample Table-1

#### \*The recommended number of samples per AHERA is nine for areas greater than 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample	Asbestos	Square	Location of Material	Friable	Damage
	Number	Content	Footage			
Interior	01	Non	N/A	Throughout Interior Walls	No	No
Plaster	02	Detected		and Ceiling		
	03					
Drywall and	04	Non	N/A	Equipment Room Walls	No	No
Joint	05	Detected		and Ceiling		
Compound	06					

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or

Location	Sample	Component	Substrate	Pbl	Condition
	Number			mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration	0			1.0	
Calibration				1.0	
Hallway	1	Wall	Plaster	0.0	N/A
Hallway	2	Wall	Plaster	0.0	N/A
Equipment Room	3	Wall	Drywall	0.0	N/A
Equipment Room	4	Wall	Drywall	0.0	N/A

 $0.06 \text{ mg/cm}^2$  in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above  $1.0 \text{ mg/cm}^2$ 

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for this changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property.

Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

sample result and/or location of material. Please contact the undersigned with your questions and/or comments regarding the

Signed for Ambient Environmental, Inc. by Sincerely,

9771-56# 2¥3 Jule J uyor

D - xibnəqqA A - xibnəqqA

A - xibnaqqA stnamdasti A

Laboratory Certification of Analysis Chain of Custody and Bulk Sample Log

Certification

## APPENDIX A

CHAIN OF CUSTODY AND BULK SAMPLE LOG



400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

<b>1</b> 40	ASBESTOS BU	JLK SAMPLE LOG Pag	e_ <u>L</u> of
Client Na	me: ULA Pri	0	
Project Lo	ocation: PR BuilDr	uc Rowsia	v
	7-21-15 Field Te	2.4.2	
	umber: <u>19-1486</u> H		
	· · · · · · · · · · · · · · · · · · ·		
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE
01	FLRUAR MANS	INTONIA PLATE	
or	1	1 [	
03		4	
04	Figures Room FilkADa	PAUAN M TOM COMM	
or			
06		11	
10 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 - 0 -			

Chain of Custody Analytical Method: PLM: \_\_\_\_ TEM: \_\_\_\_ Other: \_\_\_\_\_

Sampled By		Date	Time
<b>Relinquished By</b>		Date	Time
Received By	huile FIE	Date 07-210-8	Time 9:35m
<b>Relinquished By</b>		Date	Time
Received By		Date	Time

## **APPENDIX B**

## LABORATORY CERTIFICATES OF ANALYSIS



# Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) NVLAP Lab Code: 101459-1

		NVLAF Lab C	oue. 101439-1					
Ambient Environmental Inc John Payne 400 N. Princeland Crt.					Client ID: Report Num Date Receive	ed: 07/26/	19	
Ste. 3 Corona, CA 92879						Date Analyzed: 07/28/19   Date Printed: 07/29/19   First Reported: 07/29/19		
Job ID/Site: 19-1486; PE Building, UC Riverside Date(s) Collected: 07/21/2019						FALI Job ID:5697Total Samples Submitted:6Total Samples Analyzed:6		
Date(s) Collected: 07/21/2019							6	
Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	
01	51251681							
Layer: Beige Plaster			ND					
Layer: Off-White Plaster			ND					
Layer: Paint			ND					
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)						
02	51251682							
Layer: Beige Plaster			ND					
Layer: Off-White Plaster			ND					
Layer: Paint			ND					
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)						
03	51251683							
Layer: Beige Plaster			ND					
Layer: Off-White Plaster			ND					
Layer: Paint			ND					
Total Composite Values of Fibrous Co Cellulose (Trace)	omponents:	Asbestos (ND)						
04	51251684							
Layer: White Drywall	01201001		ND					
Layer: White Skimcoat/Joint Compour	nd		ND					
Layer: Paint			ND					
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (3		Asbestos (ND)						
05	51251685							
Layer: White Drywall			ND					
Layer: White Skimcoat/Joint Compour	nd		ND					
Layer: Paint			ND					
Total Composite Values of Fibrous Co Cellulose (20 %) Fibrous Glass (3		Asbestos (ND)						

Client Name: Ambient Environn		Asbestos	Percent in	Asbestos	Date Printed: Percent in	: 07/29/ Asbestos	Percent ir
Sample ID	Lab Number	Туре	Layer	Туре	Layer	Туре	Layer
06	51251686						
Layer: White Drywall			ND				
Layer: White Skimcoat/Joint C	ompound		ND				
Layer: Paint			ND				
Total Composite Values of Fib	rous Components: As	bestos (ND)					
Cellulose (20 %) Fibrous (	Glass (3 %)						

5 Jan mod

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the

use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

2 of 2

## **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health Asbestos Certification & Training Unit 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov GAVIN NEWSOM, Governor



310191226C 80

87

Ambient Environmental, Inc. John Lee Payne 400 Princeland Court, Suite 3 Corona CA 92879 May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days <u>before</u> the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff Ferrell Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health Certified Asbestos Consultant



John Lee Payne Certification No. 193-1226 Expires on 06/24/20 This certification was issued by the Duries on

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





AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* jp@ambientenv.com www.ambientenvinc.com

July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: Spieth Hall North (Elevator Upgrade Project) University of Riverside, California.

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced locations. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected				
Less Than 1,000 sq. ft.	3 – Samples				
Between 1,000 & 5,000 sq. ft.	5 – Samples				
Greater than 5,000 sq. Ft.	*7 – Samples				

Sample Table-1

#### \*The recommended number of samples per AHERA is nine for areas greater than 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample	Asbestos	Square	Location of Material	Friable	Damage
	Number	Content	Footage			
Interior	01	Non	N/A	Throughout Interior Walls	No	No
Plaster	02	Detected		and Ceiling		
	03					
12x12	04	Non	N/A	Throughout Interior Walls	No	No
Ceiling Tile	05	Detected		and Ceiling		
and Mastic	06			-		

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or

Location	Sample	Component	Substrate	Pbl	Condition
	Number			mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration				1.0	
Calibration				1.0	
Hallway	1	Wall	Plaster	0.0	N/A
Hallway	2	Wall	Plaster	0.0	N/A
Hallway	3	Wall	Concrete	0.0	N/A
Hallway	4	Wall	Concrete	0.0	N/A
Room 360/362	5	Wall	Drywall	0.0	N/A
Room 360/362	6	Wall	Drywall	0.0	N/A

 $0.06 \text{ mg/cm}^2$  in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above  $1.0 \text{ mg/cm}^2$ 

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for this changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property.

Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our

investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

Please contact the undersigned with your questions and/or comments regarding the sample result and/or location of material.

Sincerely, Signed for Ambient Environmental, Inc. by

John L. Payne CAC#93-1226

Attachments Appendix - A Appendix - B Appendix - C

Chain of Custody and Bulk Sample Log Laboratory Certification of Analysis Certification

## **APPENDIX A**

## CHAIN OF CUSTODY AND BULK SAMPLE LOG


400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

	ASBESTOS BU	JLK SAMPLE LOG	Page of				
Client Na	me: ULA Pil		965 Fair I and an				
Project Lo	ocation: SOTRE HAD	1 Nora U	K RANFIM				
Date: _7	ocation: <u>SOTRE HAD</u> -21-19 Field Te	chnician: Joh	n Payne				
	umber: 19-1487						
C. C							
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIP	TION SQUARE FOOTAGE				
0]	Harnings	Instruct Plan	r				
02							
03		4					
OM		CAR FILA A MASSA	1				
08		1/					
06	$\prec$	31					
	A						
Chain of C	Chain of Custody Analytical Method: PLM: TEM: Other:						
Sampled B	y A	Date	Time				
Relinquish		Date	Time				
<b>Received</b> B		Date 07-24-A	Time 9:35m				
Relinguish		Date	Time				
Received B	By V	Date	Time				
	1						

#### **APPENDIX B**

## LABORATORY CERTIFICATES OF ANALYSIS



# Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) NVLAP Lab Code: 101459-1

Ambient Environmental Inc John Payne 400 N. Princeland Crt. Ste. 3 Corona, CA 92879					Client ID: Report Numb Date Received Date Analyzed Date Printed: First Reported	: 07/26/1 I: 07/28/1 07/29/1	19 19 19
Job ID/Site: 19-1487; Spieth Hall No Date(s) Collected: 07/21/2019	Job ID/Site: 19-1487; Spieth Hall North, UC Riverside Date(s) Collected: 07/21/2019				FALI Job ID: Total Samples Total Samples	: 6 6	
Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01 Layer: Beige Plaster Total Composite Values of Fibrous C Cellulose (Trace)	51251687 components:	Asbestos (ND)	ND				
02 Layer: Beige Plaster	51251688		ND				
Total Composite Values of Fibrous C Cellulose (Trace)	omponents:	Asbestos (ND)					
03 Layer: Beige Plaster Total Composite Values of Fibrous C Cellulose (Trace)	51251689 omponents:	Asbestos (ND)	ND				
04 Layer: Brown Mastic Layer: Tan Fibrous Material Total Composite Values of Fibrous C Cellulose (90 %)	51251690 omponents:	Asbestos (ND)	ND ND				
05 Layer: Brown Mastic Layer: Tan Fibrous Material Total Composite Values of Fibrous C Cellulose (90 %)	51251691 omponents:	Asbestos (ND)	ND ND				
06 Layer: Brown Mastic Layer: Tan Fibrous Material Total Composite Values of Fibrous C Cellulose (90 %)	51251692 omponents:	Asbestos (ND)	ND ND				

					<b>Report Num</b>	ber: B2906	58
Client Name: Ambient Env	vironmental Inc				<b>Date Printed</b>	: 07/29/	19
		Asbestos	Percent in	Asbestos	Percent in	Asbestos	Percent in
Sample ID	Lab Number	Туре	Layer	Туре	Layer	Туре	Layer

SJan Indd

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reporduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

2 of 2

## **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health Asbestos Certification & Training Unit 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov GAVIN NEWSOM, Governor



310191226C

87

80

Ambient Environmental, Inc. John Lee Payne 400 Princeland Court, Suite 3 Corona CA 92879

May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff\_Ferrell Sehior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant** 



Certification No. 93-1226

Expires on 06/24/20 This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et sed of the Business and Professions Code





AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* jp@ambientenv.com www.ambientenvinc.com

July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: Spieth Hall South Rooms 360/362 and Hallways (Elevator Upgrade Project) University of Riverside, California.

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced locations. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected
Less Than 1,000 sq. ft.	3 – Samples
Between 1,000 & 5,000 sq. ft.	5 – Samples

Sample Table-1

Greater than 5,000 sq. Ft.	*7 – Samples
----------------------------	--------------

#### \*The recommended number of samples per AHERA is nine for areas greater than 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample Number	Asbestos Content	Square Footage	Location of Material	Friable	Damage
Drywall and Joint Compound	01 02 03	Non Detected	N/A	Throughout Interior Walls and Ceiling	No	No
12x12 Ceiling Tile and Mastic	03 04 05 06	Non Detected	N/A	Throughout Interior Walls and Ceiling	No	No
Interior Plaster	07 08 09	Non Detected	N/A	Throughout Interior Walls and Ceilings	No	No

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or 0.06 mg/cm<sup>2</sup> in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above 1.0 mg/cm<sup>2</sup>

Location	Sample	Component	Substrate	Pbl	Condition
	Number			mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration				1.0	
Calibration				1.0	
Hallway	1	Wall	Plaster	0.0	N/A
Hallway	2	Wall	Plaster	0.0	N/A
Hallway	3	Wall	Concrete	0.0	N/A
Hallway	4	Wall	Concrete	0.0	N/A
Room 360/362	5	Wall	Drywall	0.0	N/A
Room 360/362	6	Wall	Drywall	0.0	N/A

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for this changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property. Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

Please contact the undersigned with your questions and/or comments regarding the sample result and/or location of material.

Sincerely, Signed for Ambient Environmental, Inc. by

John L. Payne CAC#93-1226

Atrachments Appendix - A Appendix - B Appendix - C

Chain of Custody and Bulk Sample Log Laboratory Certification of Analysis Certification

## APPENDIX A

## CHAIN OF CUSTODY AND BULK SAMPLE LOG



400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

	ASBESTOS BU	JLK SAMPLE LOG Page	of
Client Nat	me: ULA P	<i>`D</i>	
Project Lo	ocation: Spir. 1.1.	M SOUR UCRO	
Date:	-2/-15	chnician: John Ry	2
Project Nu	umber: 19-1488 H	Priority: ASAP 24 HR 3	-5 Days
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE
01	Room 360/362	Down Pur comp	
02			
03	41	$\checkmark$	
oy	Brokung	CRy/ FIR M MAGTE	
or	11	1/	
06	+	JF	
70	Barning	Informer Plare	
SS		1/	
05	+ <i>V</i>	44	
Chain of C	Custody Analytical Metho	d: PLM: <u> </u>	r:

Sampled By Time Date **Relinquished By** Date Time Received By Date 07-26-R Time pr DAL FID Q. 32 lo **Relinquished By** Date Time **Received By** Date Time

#### **APPENDIX B**

#### LABORATORY CERTIFICATES OF ANALYSIS



# Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation) NVLAP Lab Code: 101459-1

John Payne 400 N. Princeland Crt. Ste. 3 Corona, CA 92879 Job ID/Site: 19-1488; Spieth H Date(s) Collected: 07/21/2019	all South, UC Riverside	2			Report Numb Date Received Date Analyzed Date Printed: First Reported FALI Job ID: Total Samples Total Samples	l: 07/26/1 d: 07/29/1 07/29/1 d: 07/29/1 5697 s Submitted:	9 9 9 9
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent ir Layer
01 Layer: White Drywall	51251693	21	ND				
Total Composite Values of Fib	rous Components: A	Asbestos (ND)	ND				
02 Layer: White Drywall	51251694		ND				
Total Composite Values of Fib Cellulose (20 %) Fibrous (	rous Components: A Glass (5 %)	Asbestos (ND)					
03 Layer: White Drywall	51251695		ND				
Total Composite Values of Fib Cellulose (20 %) Fibrous (	rous Components: A Glass (5 %)	Asbestos (ND)					
04 Layer: Brown Mastic Layer: Tan Fibrous Material Layer: Beige Plaster	51251696		ND ND ND				
Total Composite Values of Fib Cellulose (70 %)	rous Components: A	Asbestos (ND)					
05 Layer: Brown Mastic Layer: Tan Fibrous Material Layer: Beige Plaster	51251697		ND ND ND				
Total Composite Values of Fib Cellulose (70 %)	rous Components: A	Asbestos (ND)					
06 Layer: Brown Mastic Layer: Tan Fibrous Material Layer: Beige Plaster Total Composite Values of Fib Cellulose (70 %)	51251698 rous Components: A	Asbestos (ND)	ND ND ND				

1 of 2

					Report Num		
Client Name: Ambient Environmental Inc					Date Printed	07/29/	19
Sample ID L	ab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
07 5	1251699						
Layer: Beige Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Compo Cellulose (Trace)	nents: A	Asbestos (ND)					
08 5	1251700						
Layer: Beige Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Compo	nents: A	sbestos (ND)					
Cellulose (Trace)							
09 5	1251701						
Layer: Beige Plaster			ND				
Layer: White Plaster			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Compo Cellulose (Trace)	nents: A	Asbestos (ND)					

5 Jan Judd

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

## **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health Asbestos Certification & Training Unit 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov GAVIN NEWSOM, Governor



310191226C 80

Ambient Environmental, Inc. John Lee Pavne 400 Princeland Court, Suite 3 Corona CA 92879

May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

87

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff\_Ferrell Sehidr Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant** 



Certification No. 93-1226

Expires on 06/24/20 This centrication was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et see of the Business and Professions Code.





July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: Watkins Hall Rooms 1329, 1237 and 1233 (Elevator Upgrade Project) University of Riverside, California. PO #SC10804611-CH2 Project #112008

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced locations. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected			
Less Than 1,000 sq. ft.	3 – Samples			
Between 1,000 & 5,000 sq. ft.	5 – Samples			
Greater than 5,000 sq. Ft.	*7 – Samples			

Sample Table-1

#### \*The recommended number of samples per AHERA is nine for areas greater than 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample	Asbestos	Square	Location of Material	Friable	Damage
	Number	Content	Footage			
Interior	01	Non	N/A	Throughout Interior Walls	No	No
Plaster	02	Detected		and Ceiling		
	03					
12x12	04	Non	N/A	Throughout Interior Walls	No	No
Ceiling Tile	05	Detected		and Ceiling		
and Mastic	06			Lin 199		
Ceiling Tile	07	Non	N/A	Throughout Interior Walls	No	No
	08	Detected		and Ceilings		
	09					
Vinyl Floor	10	Tile 5%	90 SF	Room 1329	No	No
Tile and	11	Chrysotile				
Mastic	12	Mastic Non				80
		Detected				

The asbestos containing building materials table above is designed to aid the building owner, architect, construction manager, general contractors and potential asbestos abatement contractors in locating asbestos containing building materials within the scope of work. Other asbestos containing building materials may exist at the property within concealed areas of the property or outside the scope of work. All square footages of asbestos containing building materials should be field verified prior to submitting any removal quotes. Current federal and state regulations (SCAQMD Rule 1403) require if during any renovation or demolition activities asbestos containing building materials will be disturbed, then only contractors who have been properly trained in the correct handling of asbestos containing buildings conduct any repair, removal and/or demolition activities. A SCAQMD notification will have to be submitted and approved for any removal of 100 square feet or 160 linear feet of asbestos containing building materials. If any asbestos containing building materials becomes damaged or disturbed during any construction activities, then a SCAQMD Proceders-5 work plan should be written and approved prior to any asbestos removal activity. All environmental work should proceed under the guidance or direction of an independent State Certified Consultant.

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or 0.06 mg/cm<sup>2</sup> in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above 1.0 mg/cm<sup>2</sup>

Location	Sample	Component	Substrate	Pbl	Condition
	Number			mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration				1.0	
Calibration				1.0	
Room 1329	1	Wall	Plaster	0.0	N/A
Room 1237	2	Wall	Plaster	0.0	N/A
Room 1233	3	Wall	Plaster	0.0	N/A
Room 1329	4	Wall	Ceramic Tile	1.9	N/A

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified

during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for these changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property.

Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

Please contact the undersigned with your questions and/or comments regarding the sample result and/or location of material.

Sincerely, Signed for Ambient Environmental, Inc. by

John L. Payne CAC #93-1226

Attachments Appendix - A Appendix - B Appendix - C

Chain of Custody and Bulk Sample Log Laboratory Certification of Analysis Certification

### **APPENDIX A**

CHAIN OF CUSTODY AND BULK SAMPLE LOG



400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

	ASBESTOS BU	LK SAMPLE LOG	Page of			
Client Name: MCR P:D						
Project Lo	Project Location: WATKing HAM UC RNIVSM-					
Date:	7-21-19 Field Tec	chnician:Dh~	C Para			
	1mber: <u>19-1490</u> P					
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIP	TION SQUARE FOOTAGE			
01	Room 1329	In JAVION PLASO	2			
02	Roven p 37					
03	Rovy 1233	V V	,			
04	Hall way	12712 CA.S T.I And MATTIC	~			
05		1 /				
06	1237 WA19/CAA 1233 ABUN 1233 274 CA.S	Z L				
$\mathcal{O}$	Rosm 1233	CAIS T-12				
08		16				
05						
10	Room 1329	Ung Pour Till	~			
Chain of C	Custody Analytical Metho	d: PLM: <u>&gt;</u> TEM:	Other:			
Sampled B	y 4-	Date	Time			
Relinquish	ed By	Date	Time			
Received H		Date 7-26-1	Time 9:35m			
Relinquish		Date	Time			
Received H	By J	Date	Time			



400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvine.com

ASBESTOS BULK SAMPLE LOG Page 2 of 2
Client Name: UCA P'c D
Project Location: WAT KM HAN UC KNENSM
Date: 7-21-19 Field Technician: John Pann
Project Number: 19-1490 Priority: ASAP 24 HR > 3-5 Days

SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE
11	Room 1329	Uny Plow Man	
12	Room 1329 + L	+ F	
	2		
	1		

Chain of Custody

Analytical Method: PLM: \_\_\_\_\_ TEM: \_\_\_\_\_ Other: \_\_\_\_\_\_

		Date	Time
Relinquished By		Date	Time
Received By	VEINA TE	Date 07-26-6	Time 7:352
Relinquished By		Date	Time
Received By	h	Date	Time

#### **APPENDIX B**

#### LABORATORY CERTIFICATES OF ANALYSIS



## Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

NVLAP Lab Code: 101459-1

Ambient Environmental John Payne 400 N. Princeland Crt. Ste. 3	Inc				Client ID: Report Num Date Receive Date Analyz	ed: 07/26/1 ed: 07/29/1	19 19
Corona, CA 92879					Date Printed First Report		
Job ID/Site: 19-1490;	Watkins Hall, UC Riverside				FALI Job II Total Sampl	): 5697 es Submitted:	12
Date(s) Collected: 07/2	1/2019				Total Sample	es Analyzed:	12
Sample ID	Lab Numbe	Asbestos t Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
01	51251738						
Layer: Beige Plaster			ND				
Total Composite Valu Cellulose (Trace)	es of Fibrous Components:	Asbestos (ND)					
02	51251739						
Layer: Beige Plaster			ND				
Total Composite Valu Cellulose (Trace)	es of Fibrous Components:	Asbestos (ND)					
03	51251740						
Layer: Beige Plaster			ND				
Total Composite Valu Cellulose (Trace)	es of Fibrous Components:	Asbestos (ND)					
04	51251741						
Layer: Beige Fibrous I Layer: Paint	Material		ND ND				
	es of Fibrous Components: Fibrous Glass (45 %)	Asbestos (ND)					
05	51251742						
Layer: Beige Fibrous I	Material		ND				
Layer: Paint			ND				
-	es of Fibrous Components: Fibrous Glass (45 %)	Asbestos (ND)					
06	51251743						
Layer: Beige Fibrous I Layer: Paint	Material		ND ND				
	es of Fibrous Components: Fibrous Glass (45 %)	Asbestos (ND)					
07	51251744						
Layer: Brown Mastic Layer: Tan Fibrous Ma	aterial		ND ND				
Total Composite Value Cellulose (90 %)	es of Fibrous Components:	Asbestos (ND)					

Client Name: Ambient Environmental Inc					Report Num Date Printed		
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>08</b> Layer: Brown Mastic Layer: Tan Fibrous Material	51251745		ND ND				
Total Composite Values of Fibrous Comp Cellulose (90 %)	onents: A	sbestos (ND)					
09 Layer: Brown Mastic Layer: Tan Fibrous Material	51251746		ND ND				
Total Composite Values of Fibrous Comp Cellulose (90 %)	onents: A	sbestos (ND)					
	51251747						
Layer: Red Tile Layer: Black Mastic		Chrysotile	5 % ND				
Total Composite Values of Fibrous Comp Cellulose (Trace)	onents: A	sbestos (5%)					
11 :	51251748						
Layer: Red Tile Layer: Black Mastic		Chrysotile	5 % ND				
Total Composite Values of Fibrous Comp Cellulose (Trace)	onents: A	sbestos (5%)					
12	51251749						
Layer: Red Tile Layer: Black Mastic		Chrysotile	5 % ND				
Total Composite Values of Fibrous Comp Cellulose (Trace)	onents: A	sbestos (5%)					

S Jan Judd

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

### **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

Corona CA

DEPARTMENT OF INDUSTRIAL RELATIONS Division of Occupational Safety and Health Asbestos Certification & Training Unit 2424 Arden Way, Suite 495 Sacramento, CA, 95825-2417

Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html acru@dir.ca.gov GAVIN NEWSOM, Governor



310191226C 80

Ambient Environmental, Inc. John Lee Payne 400 Princeland Court, Suite 3

92879

May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

87

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days <u>before</u> the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff Ferrell Semior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health Certified Asbestos Consultant





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



AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* jp@ambientenv.com www.ambientenvinc.com

July 31, 2019

University of California, Riverside Planning Design & Construction 1223 University Avenue Suite 240 Riverside, California 92507 Attn: Mr. Fernando Nunez-Project Manager

Re: Asbestos and Lead Survey for the project located at: Webber Hall (Elevator Upgrade Project) University of Riverside, California. PO #SC10804611-CH2 Project #112008

Dear Mr. Nunez,

Ambient Environmental Inc. performed an asbestos building material for the above referenced locations. Ambient Environmental Inc. on site field personnel obtained asbestos building material bulk samples and X-Ray Fluorescence (XRF) reading from painted building component that would be impacted during the elevator upgrade project located at the above referenced location. The survey was conducted on July 21, 2019 by Mr. John L. Payne a California Certified Asbestos Consultant #93-1226 a United States Environmental Protection Agency (USEPA) certified asbestos building inspector and a CDPHS #25387 Certified Lead Sampling Technician.

#### Asbestos Survey Procedures

The purpose of the asbestos survey was to locate and identify suspect building materials that will be impacted during the elevator upgrade project for detectable levels of asbestos Once a visual inspection was performed, representative bulk samples were obtained from each homogeneous building material that would be impacted during the upgrade activity. Homogeneous building materials are defined as building materials that are uniform in texture, construction or application date and general appearance. Also, each homogeneous building material was divided into three main categories: Surfacing Materials, Thermal System Insulation and Miscellaneous Materials. The sample location, building material type, friability and condition of building materials were also documented. If building materials were installed at different times or if there is any reason to suspect that the building material might be different through appearance, Ambient separated each building material into a new homogeneous sampling area.

Asbestos bulk samples were obtained in accordance with USEPA established guidelines document, "Guidance for Controlling Asbestos Containing Materials in Buildings" (USEPA 560/5-85-024, 1985) and USEPA 40 CFR Part 763.86 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Each bulk sample was analyzed of asbestos content by Polarized Light Microscopy (PLM) EPA Method 600/R-93-116 Visual Area Estimation. Building materials not identified in this report may be present within hidden or concealed areas of the property or outside the scope of services.

Friable and non-friable building materials assessments were performed for each homogeneous building material by the use of hand pressure as defined in USEPA 40 CFR Part 763 "Asbestos-Containing Materials in Schools, Final Rule" (AHERA). Friable material is defined as any building material that by the means of hand pressure can be crumbled into a powder.

When each homogeneous sampling area was identified, a random sampling grid was utilized for sample collection of each building material as described in the EPA guidance document, Asbestos in Building: Simplified Sampling Scheme for Friable Surfacing Materials (EPA 560/5-85-030a, October 1985 Random Number Diagrams). The minimum number of samples was obtained for each identified friable homogeneous area based upon the overall square footage of material in table-1. The physical condition, friability, accessibility, activity and damage of building materials were also assessed and documented. The following procedures were performed during the survey

- Perform a visual assessment to identify the location and type of friable/non-friable building materials.
- Obtain representative bulk samples from suspect building materials per the below table-1.
- Samples were analyzed by an independent accredited laboratory for the presence of asbestos by PLM analysis USEPA 40 CFR Part 763.87.
- Present all survey results in a written report including recommendations, locations and laboratory results. All findings, recommendations and analytical data presented in this report are based on the information (assessment and sampling data) obtained by our inspector during the survey.

Size of Sampling Area	Number of Samples Collected				
Less Than 1,000 sq. ft.	3 – Samples				
Between 1,000 & 5,000 sq. ft.	5 – Samples				
Greater than 5,000 sq. Ft.	*7 – Samples				

Sample Table-1
### <u>\*The recommended number of samples per AHERA is nine for areas greater than</u> 5,000 square feet, or at least one additional sample per additional 1,000 square feet for any friable building material.

All bulk samples were submitted to Forensic Analytical located at: 2959 Pacific Commerce Drive Rancho Dominguez, California (310) 763-2374. Forensic Analytical is accredited by the American Industrial Hygiene Association (AIHA), National Voluntary Laboratory Accreditation Program (NVLAP #101459-0), National Institute of Standards and Testing (NIST), and is a successful participant in the Proficiency Analytical Testing Program (PAT). Each sample analyzed by Polarized Light Microscopy (PLM) method in accordance with the "Interim Method for the Determination of Asbestos in Bulk Insulation Samples EPA - 600/M4-82-020" dated December 1982 and adopted by the National Voluntary Laboratory Accreditation Program (NVLAP) Title 15, part 7 of the Code of Federal Register as affiliated with the National Institute for Standards and Testing (NIST).

Current Federal USEPA Regulations define a material to be asbestos containing at 1% by weight. Current State of California regulations define a material to be asbestos containing at 0.1% by weight. For this reason, any sample reported as containing a trace amount of asbestos is assumed to contain asbestos. The following is the laboratory result:

Material	Sample	Asbestos	Square	Location of Material	Friable	Damage
	Number	Content	Footage			
Drywall and	01	Non	N/A	Third Floor Walls	No	No
Joint	02	Detected				
Compound	03					
Interior	04	Non	N/A	Throughout Interior Walls	No	No
Plaster	05	Detected		and Ceiling		
	06					
12x12	07	Non	N/A	Throughout Ceilings	No	No
Ceiling Tiles	08	Detected				
and Mastic	09					

#### Lead Survey Procedures

The lead survey was performed to identify painted building components for disposal during the construction activity. Once the suspect painted building components were identified, each painted building component was categorized into homogeneous sample areas. Homogeneous sample areas are defined as areas in which suspect painted building components are uniform in color, texture, application date and general appearance. Representative X-Ray Fluorescence (XRF) lead readings were obtained from each homogeneous sample area.

Detection Limit Guidelines for The Department of Health Services is 5000 parts per million (PPM) or 1.0 mg/cm<sup>2</sup> by the use of a hand held X-Ray Fluorescence (XRF) lead

paint analyzer, however CALOSHA requires that all workers be properly protected when working with any painted building component containing levels of lead above 600 ppm or  $0.06 \text{ mg/cm}^2$  in accordance with Title 8 CCR Section 1532.1. The following highlighted building components indicate lead containing painted surfaces above  $1.0 \text{ mg/cm}^2$ 

Location	Sample	Component	Substrate	Pbl	Condition
	Number	Veel		mg/cm <sup>2</sup>	
Calibration				1.0	
Calibration				1.0	
Calibration				1.0	
Hallway	1	Wall	Plaster	0.0	N/A
Hallway	2	Wall	Plaster	0.0	N/A
Third Floor	3	Wall	Drywall	0.0	N/A
Third	4	Wall	Drywall	0.0	N/A

Any lead containing building components highlighted above is designed to aid the building owner, architect, construction manager, general contractors of potential lead containing building components within the scope of work. Other lead containing building components may exist at the property within concealed areas of the property or outside the scope of work. All conditions of paints identified in the above table were identified during the time of the survey. All removal work should proceed under all requirements pertaining to lead containing paint removal activities.

Since the building materials sampled during this survey could potentially contain asbestos and/or lead with limited access to the scope of work no intrusive sampling was performed in areas like (roofing underlay, walls/ceiling cavities, under flooring, underground, pools/spa) or any other areas that would cause damage to building materials potentially containing asbestos or lead.

Due to limited access of the property, other asbestos and/or lead containing building materials may exist at the property and/or outside the scope of work. If other building materials that are not identified in this report are discovered, all work should (stop) and these building materials should be sampled prior to any related activities. Also, if any changes to any regulation governing asbestos and or lead occurred after the date of this report, Ambient cannot be responsible for these changes.

Once the asbestos and/or lead containing building materials identified in this report have been remove and with full access to the building interior and exterior, Ambient recommends an intrusive survey be performed to identify any remaining asbestos and/or lead containing building materials within the property.

Any recommendations in this report are professional opinions based solely on visual observations and analytical analyses, as described in this report. Opinions and/or recommendations presented herein apply to site conditions existing at the time of our

investigation, they cannot necessarily apply to site changes of which this office is not aware of and/or has not had the opportunity to evaluate.

Please contact the undersigned with your questions and/or comments regarding the sample result and/or location of material.

Sincerely, Signed for Ambient Environmental, Inc. by

John L. Payne CAC#3-1226

Attachments Appendix - A Appendix - B Appendix - C

Chain of Custody and Bulk Sample Log Laboratory Certification of Analysis Certification

## **APPENDIX A**

CHAIN OF CUSTODY AND BULK SAMPLE LOG AMBIENT ENVIRONMENTAL, INC. Consulting/Engineering/Remediation 400 North Princeland Court Suite-3 Corona, California 92879 951 272-4730 *Phone* 951 272-4731 *Facsimile* www.ambientenvinc.com

•• **	104 8 8		, ,
	ASBESTOS BU	JLK SAMPLE LOG Page	of
Client Na	me: ULL P'D		
Project Lo	ocation: WRBBN BA	И	
Date:	7-2/-19 Field Te	chnician: John C Ray	1-
	umber: <u>19-1485</u> I		
SAMPLE NUMBER	SAMPLE LOCATION	MATERIAL DESCRIPTION	SQUARE FOOTAGE
01	31 Flan	Byunn Dory com	<b>.</b>
n	1-1		
03	14	44	
04	24 Plove Horning	FRENN PLATE	
or	· · · · · ·		
06	15- Chow Horam	47	
0	15- Flow Horan 12mungs 21	Chy Film M	
08	76		
04	Hornang With	dF	
			-
	hustody Analytical Matha		L

Chain of Custody	Analytical Meth	hod: PLM: TEM:	Other:
Sampled By		Date	Time
Relinquished By		Date	Time
Received By	Janto Fr	= Date 07-26-19	Time 9125
Relinquished By	1	Date	Time
Received By	M	Date	Time
	/		

## **APPENDIX B**

## LABORATORY CERTIFICATES OF ANALYSIS



# Bulk Asbestos Analysis (EPA Method 40CFR, Part 763, Appendix E to Subpart E and EPA 600/R-93-116, Visual Area Estimation)

NVLAP Lab Code: 101459-1

Ambient Environmental Inc John Payne 400 N. Princeland Crt. Ste. 3 Corona, CA 92879					Client ID: Report Numb Date Receive Date Analyze Date Printed First Reporte	d: 07/26/2 ed: 07/29/2 : 07/29/2	19 19 19
Job ID/Site: 19-1485; WRBBN Hal	ſ				FALI Job ID Total Sample		9
Date(s) Collected: 07/21/2019					Total Sample		9
Sample ID	Lab Numbe	Asbestos er Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>01</b> Layer: White Drywall Layer: White Skimcoat/Joint Comp Layer: Paint Total Composite Values of Fibrous		Asbestos (ND)	ND ND ND				
Cellulose (20 %) Fibrous Glass		Assestos (IID)					
02 Layer: White Drywall Layer: White Skimcoat/Joint Compo Layer: Paint			ND ND ND				
Total Composite Values of Fibrous Cellulose (20 %) Fibrous Glass		Asbestos (ND)					
03	51251674						
Layer: White Drywall			ND				
Layer: White Skimcoat/Joint Compo	ound		ND ND				
Layer: Paint Total Composite Values of Fibrous Cellulose (20 %) Fibrous Glass		Asbestos (ND)	ND				
04	51251675						
Layer: Beige Plaster			ND				
Total Composite Values of Fibrous Cellulose (Trace)	Components:	Asbestos (ND)					
05	51251676						
Layer: Beige Plaster Total Composite Values of Fibrous Cellulose (Trace)	Components:	Asbestos (ND)	ND				
06	51251677						
Layer: Beige Plaster			ND				
Total Composite Values of Fibrous Cellulose (Trace)	Components:	Asbestos (ND)					

Client Name: Ambient Environmental Ir	IC				Report Numb Date Printed:		
Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
07 Layer: Brown Mastic Layer: Tan Fibrous Material	51251678		ND ND				
Total Composite Values of Fibrous Con Cellulose (90 %)	mponents: A	sbestos (ND)					
08 Layer: Brown Mastic Layer: Tan Fibrous Material	51251679		ND ND				
Total Composite Values of Fibrous Con Cellulose (90 %)	nponents: A	sbestos (ND)					
09 Layer: Brown Mastic Layer: Tan Fibrous Material	51251680		ND ND				
Total Composite Values of Fibrous Con Cellulose (90 %)	nponents: A	sbestos (ND)					

5 Jan Indd

Tiffani Ludd, Laboratory Supervisor, Rancho Dominguez Laboratory

Note: Limit of Quantification ('LOQ') = 1%. 'Trace' denotes the presence of asbestos below the LOQ. 'ND' = 'None Detected'. Analytical results and reports are generated by Forensic Analytical Laboratories Inc. (FALI) at the request of and for the exclusive use of the person or entity (client) named on such report. Results, reports or copies of same will not be released by FALI to any third party without prior written request from client. This report applies only to the sample(s) tested. Supporting laboratory documentation is available upon request. This report must not be reproduced except in full, unless approved by FALI. The client is solely responsible for the use and interpretation of test results and reports requested from FALI. Forensic Analytical Laboratories Inc. is not able to assess the degree of hazard resulting from materials analyzed. FALI 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. All samples were received in acceptable condition unless otherwise noted.

2 of 2

## **APPENDIX C**

## CERTIFICATION

#### STATE OF CALIFORNIA

DEPARTMENT OF INDUSTRIAL RELATIONS **Division of Occupational Safety and Health Asbestos Certification & Training Unit** 2424 Arden Way, Suite 495 Sacramento, CA 95825-2417 (916) 574-2993 Office (916) 483-0572 Fax http://www.dir.ca.gov/dosh/asbestos.html\_acru@dir.ca.gov GAVIN NEWSOM, Governor



310191226C 80

Ambient Environmental, Inc. John Lee Pavne 400 Princeland Court, Suite 3 Corona CA 92879

May 16, 2019

Dear Certified Asbestos Consultant or Technician:

Enclosed is your certification card. To maintain your certification, you must abide by the rules printed on the back of the certification card.

87

Your certification is valid for a period of one year. If you wish to renew your certification, you must apply for renewal at least 60 days before the expiration date shown on your card. [8 CCR 341.15(h)(1)].

Please hold and do not send copies of your required AHERA refresher renewal certificates to our office until you apply for renewal of your certification.

Certificates must be kept current if you are actively working as a CAC or CSST. The grace period is only for those who are not actively working as an asbestos consultant or site surveillance technician.

Please contact our office at the above address or email with any changes in your contact/mailing information within 15 days of the change.

Sincerely,

Jeff Ferrell Sehidr Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 01/10/2019)

State of California Division of Occupational Safety and Health **Certified Asbestos Consultant** 



Certification No. 93-1226

Expires on 06/24/20 This certification was issued by the Division of Occupational Safety and Health as authorized by Sections 7180 et sec, of the Business and Professions Code





## **SPECIFICATIONS**

## TABLE OF CONTENTS

#### Division 01 – General Requirements

Initial Issue	Revision	Section #	Title
		01 1100	Summary of Work
		01 1400	Work Restrictions
		01 2300	Alternates
		01 2500	Product Options, Requirements & Substitution Procedures
		01 2613	Requests for Information & Instructions (RFI) Procedures
		01 3113	Coordination
		01 3119	Project Meetings
		01 3200	Document Control
		01 3216	Schedules
		01 3280	Electronic Data Transfer
		01 3300	Submittals
		01 3520	Design Assist Procedures
		01 3543	Environmental Procedures
		01 3546	Indoor Air Quality Procedures & Requirements
		01 4100	Regulatory Requirements
		01 4200	References
		01 4300	Inspection of Work
		01 4500	Quality Control
		01 4516	Contractor's Quality Control Program
		01 4520	Concrete Moisture Testing
		01 5100	Temporary Utilities
		01 5200	Construction Facilities
		01 5300	Temporary Construction
		01 5400	Construction Aids



Initial Issue	<u>Revision</u>	Section #	<u>Title</u>
		01 5500	Vehicular Access and Parking
		01 5600	Temporary Barriers and Enclosures
		01 5700	Temporary Controls
		01 5800	Temporary Signage
		01 6000	Product Requirements
		01 7100	Examination and Preparation
		01 7329	Cutting and Patching
		01 7400	Cleaning and Waste Management
		01 7700	Contract Closeout
		01 7839	As-Built Documents
		01 8113	Sustainable Design Requirements
		01 9113	General Commissioning Requirements

#### **Division 2- Existing Conditions**

<u>02 8216</u>	Hazardous Soil, Asbestos, Lead Abatement of Non-Friable
	Floor Tile

#### **Division 14 – Conveying Equipment**

14 2210	Modernization of Elevators – Athletic Building
14 2210	Modernization of Elevators - Entomology
14 2210	Modernization of Elevators – Spieth Hall
14 2210	Modernization of Elevators – Watkins Hall
14 2210	Modernization of Elevators – Webber Hall

END OF SPECIFICATIONS TABLE OF CONTENTS