



PRE-RENOVATION ASBESTOS-CONTAINING MATERIAL SURVEY

**SURVEY REPORT FOR:
THETA XI FRATERNITY
503 1ST STREET
DAVIS, CA 95616**



WESTECH ENVIRONMENTAL PROJECT NO. 071816-A003

**PREPARED FOR:
MR. BOB TESTA
BETA EPSILON ASSOCIATION OF THETA XI**

**PREPARED BY:
ANTHONY BELCHER
CAC# 05-3811**

WESTECH ENVIRONMENTAL, LLC.
5960 S. LAND PARK DRIVE, #367 SACRAMENTO, CA 95822
PH: 916-392-2006
FX: 916-436-8713
Website: www.1westech.com



ASBESTOS INSPECTION

I, Anthony Belcher CAC #05-3811 certify that the construction project located at

503 1ST Street, Davis, CA 95616

has been inspected for asbestos containing material and complies with Title 8 Code of California Regulations, "Asbestos Survey Standards for Buildings to be Renovated or Demolished", as promulgated by California Department of Safety and Health (DOSH) and "Clean Air Act" (NESHAP) and OSHA, "Standards for Construction Workers" and found that;

For General Construction:

XX 1. The building or area being renovated has been tested by a licensed Certified Asbestos Consultant and no asbestos containing materials regulated by the California State codes or standards were found.

___ 2. The building or area being renovated or demolished has been tested by a Certified Asbestos Consultant and is found to have asbestos containing material in excess of one/tenth of a percent. If the asbestos containing material is disturbed, it must be removed or encapsulated as required by the above codes and standards, and final clearance levels indicated compliance will be obtained before the area is reoccupied.

___ 3. The combined amount of regulated asbestos containing material is less than the 260 linear feet on pipes, 160 square feet on other facility components, or less than 35 cubic yards when removed from the facility components.

___ 4. The area being renovated or demolished is a single-family dwelling or a residential housing unit with four or less units. These units will not be used for commercial or public use.

Anthony Belcher-

Certified Asbestos Consultant #05-3811
Wes-Tech Environmental



Wes-Tech Environmental



Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920

STATE OF CALIFORNIA

Edmund G. Brown, Jr. Governor

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



505233811C

280

284

September 29, 2015

WesTech Environmental
Anthony D. Belcher
5960 South Land Park Drive, #367
Sacramento, CA 95822

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, fax number or email; of any changes in your contact/mailling information within 15 days of the change.

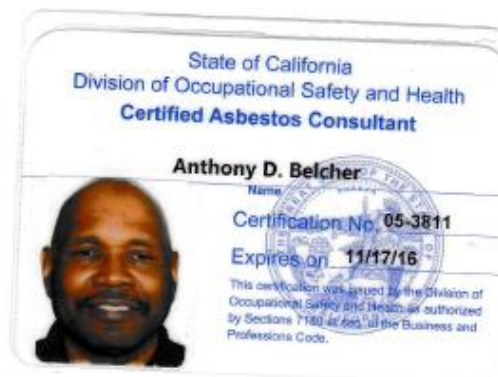
Sincerely,

Jeff Ferrell
Senior Safety Engineer

Attachment: Certification Card

cc: File

Renewal - Card Attached (Revised 10/24/2012)





1. Executive Summary

Wes-Tech Environmental was retained by Bob Testa to perform an Asbestos Hazard Emergency Response Act (AHERA) style asbestos survey of multi-use commercial building to determine the locations of accessible and to the extent feasible, inaccessible friable and non-friable asbestos containing building materials (ACBM).

Friable materials are materials that can be reduced to powder with hand pressure such as fireproofing, sprayed-on acoustic ceilings, ceiling tile, pipe insulation, and other thermal systems insulation. All other materials such as floor tile, adhesives, plaster, stucco, and sheet rock mudding compounds are considered non-friable materials.

Because friable materials are more likely to release asbestos fibers into the air when disturbed than non-friable materials, friable materials are considered a greater health concern.

Wes-Tech Environmental performed an Asbestos Hazard Emergency Response Act (AHERA) style asbestos survey of the, to identify ACBM. This report includes PLM Bulk Sample analyses and identifies the locations of suspect asbestos containing material.

DISCLAIMER

This report is prepared for the express use and benefit of **503 1st Street in Davis, CA 95616**, its agents and employees. The information in this report or portions thereof may be required to be included in notifications to government agencies, employees, contractors or other visitors to the building(s). This report is not intended to be used as a sole specification or work plan for all of the work suggested or recommended in this report.

This report is based upon conditions and practices observed at the property and Information made available to the surveyor. This report does not intend to identify all hazards or unsafe practices, nor to indicate that other hazards or unsafe practices do not exist at the premises.



Wes-Tech Environmental



Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920

Purpose:

The purpose of the Pre-Renovation ACM Survey was to identify and quantify the absence or presence of potential ACMs within the subject buildings prior to propose renovation activities. The scope of work for the Pre-Renovation ACM Survey included conducting a visual survey of the subject building and conducting bulk sampling and analysis of material suspected of containing asbestos.

Contractors performing work subject to 8 CCR 1529:

- Determine the location and quantity of asbestos-containing material (ACM) and/or presumed ACM (PACM) based on the criteria in 1529(k)(1); {ref. 1529(k)(3)(A)}
- Within 10 days of completing the work, regarding the location and quantity of remaining asbestos, as well as any final monitoring results {ref. 1529(k)(3)(C)}

See 8 CCR 1529 for the exact requirements. There are additional notification duties to the local air quality district or the U.S.EPA.

Should you have any questions regarding this report, please contact me.

Respectfully,



Anthony Belcher IH, CAC
Wes-Tech Environmental



No Asbestos-containing material (ACM) was identified in the sample as follows:

QUANTEM
LABORATORIES

2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No. 266965

Account Number: B591

Date Received: 07/21/2016

Received By: Peyton Awbrey

Date Analyzed: 07/26/2016

Analyzed By: Carter Cox

Methodology: EPA/600/R-93/116

Client: Wes-Tech Environmental

Tony Belcher

5960 South Land Park Dr. #367

Sacramento, CA 95822

Project: N/A

Project Location: 503 1st Street, Davis, CA 95616

Project Number: 071816-A003

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
001	1	Homogeneous	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
002	2	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
002a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum
003	3	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
003a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum
004	4	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
004a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

Quantem is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



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Client: Wes-Tech Environmental

Tony Belcher

5960 South Land Park Dr. #367

Sacramento, CA 95822

Project: N/A

Project Location: 503 1st Street, Davis, CA 95616

Project Number: 071816-A003

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
005	5	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
005a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum
006	6	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
006a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum
007	7	Layered	White Joint Compound	Asbestos Not Present	NA	CaCO3 Paint
007a		Layered	White Sheetrock	Asbestos Not Present	Cellulose	15 Gypsum

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 266965
Account Number: B591
Date Received: 07/21/2016
Received By: Peyton Awbrey
Date Analyzed: 07/26/2016
Analyzed By: Carter Cox
Methodology: EPA/600/R-93/116

Client: Wes-Tech Environmental
Tony Belcher
5960 South Land Park Dr. #367
Sacramento, CA 95822

Project: N/A
Project Location: 503 1st Street, Davis, CA 95616
Project Number: 071816-A003

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
008	8	Layered	Tan Sheet Vinyl	Asbestos Not Present	NA	Vinyl Foam CaCO ₃
008a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
009	9	Layered	Gray Carpet	Asbestos Not Present	Synthetic 100	
009a		Layered	Yellow Mastic	Asbestos Not Present	NA	Glue CaCO ₃
010	10	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue
010a		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO ₃
011	11	Layered	Yellow Mastic	Asbestos Not Present	NA	Glue

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

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2033 HERITAGE PARK DR, OKLAHOMA CITY, OK 73120 | 1.800.822.1650

Polarized Light Microscopy Asbestos Analysis Report

Quantem Lab No.	266965	Client:	Wes-Tech Environmental
Account Number:	B591		Tony Belcher
Date Received:	07/21/2016		5960 South Land Park Dr. #367
Received By:	Peyton Awbrey		Sacramento, CA 95822
Date Analyzed:	07/26/2016	Project:	N/A
Analyzed By:	Carter Cox	Project Location:	503 1st Street, Davis, CA 95616
Methodology:	EPA/600/R-93/116	Project Number:	071816-A003

Quantem Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
011a		Layered	Gray Leveling Compound	Asbestos Not Present	NA	CaCO3
012	12	Homogeneous	Brown Insulation	Asbestos Not Present	Cellulose	100
013	13	Homogeneous	Brown Insulation	Asbestos Not Present	Cellulose	100
014	14	Homogeneous	Brown Insulation	Asbestos Not Present	Cellulose	100
015	15	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber	20 Tar Quartz
015a		Layered	Black Tar	Asbestos Not Present	NA	Tar

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Polarized Light Microscopy Asbestos Analysis Report

QuanTEM Lab No. 266965

Account Number: B591

Date Received: 07/21/2016

Received By: Peyton Awbrey

Date Analyzed: 07/26/2016

Analyzed By: Carter Cox

Methodology: EPA/600/R-93/116

Client: Wes-Tech Environmental

Tony Belcher

5960 South Land Park Dr. #367

Sacramento, CA 95822

Project: N/A

Project Location: 503 1st Street, Davis, CA 95616

Project Number: 071816-A003

QuanTEM Sample ID	Client Sample ID	Composition	Color / Description	Asbestos (%)	Non-Asbestos Fiber (%)	Non Fibrous
015b		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
016	16	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber 20	Tar Quartz
016a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar
017	17	Layered	Gray Shingle	Asbestos Not Present	Glass Fiber 20	Tar Quartz
017a		Layered	Black Tar Paper	Asbestos Not Present	Cellulose 60	Tar

Carter W. Cox, Analyst

7/26/2016

Date of Report

Unless otherwise noted, upon receipt the condition of the sample was acceptable for analysis.

QuanTEM is a NVLAP accredited PLM laboratory (Lab Code: 101959-0). This report relates only to the specific items tested. NVLAP accreditation applies only to analysis performed utilizing EPA/600/M4-82-020 and EPA/600/R-93/116 methods. This report may not be used to claim product endorsement by NVLAP or any agency of the US Government. This report may not be reproduced except in full, without the written approval of the laboratory.



Wes-Tech Environmental



Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920

Wes-Tech Environmental Industrial Hygiene Services
5960 South Land Park Drive #367
Sacramento, CA 95822

Accession Number: 260003

Report Recipient: Certified Asbestos Consultant #05-3811
Phone: (916) 392-2006
Email: Anthony@twestech.com
Sample Date: 11/16/16
Ship Date: 11/16/16
Via: Personal Delivery

Job No: 071816-A003

Client: THETA XI FRANTERNITY

Location: 503 1ST STREET, DAVIS, CA 95616

SPECIAL INSTRUCTIONS:

Location Description	Start	End	Temp	Swab	Air	Bio-trace	PCM	PLM Bulk	Final	Lead
1. Downstairs bathroom	SR							X		
2. Back W. room closet	SR							X		
3. Downstairs NE closet	SR							X		
4. Penthouse room	SR							X		
5. Stairway	SR							X		
6. Upstairs crawlspace closet	SR							X		
7. Basement	SR							X		
8. Linoleum & mastic under bathroom sink								X		
9. Downstair NE bedroom carpet mastic								X		
10. Hallway carpet mastic								X		
11. Upstairs office crawlspace carpet mastic								X		
12. Insulation 1								X		
13. Insulation 2								X		
14. Insulation 3								X		
15. South roof- roofing & felt								X		
16. Center roof- roofing & felt								X		
17. North roof- roofing & felt								X		

1. Relinquished by: [Signature]
2. Relinquished by: [Signature]

3. Where: [Blank]
4. What: [Blank]
5. Who: [Blank]
6. Scrubbers: [Blank]
7. Samples: [Blank]
8. Lab: [Blank]

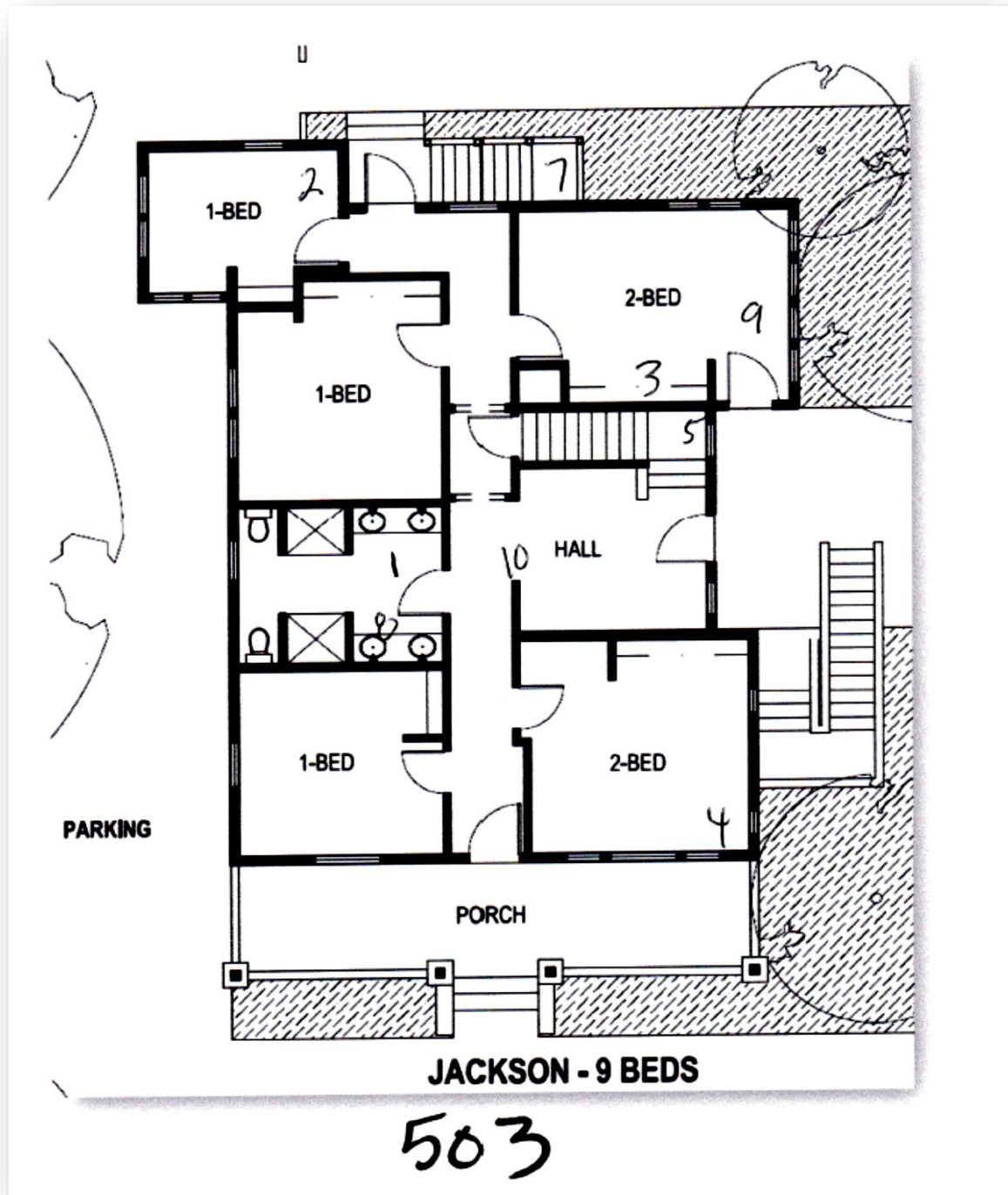
Revision Date 1/1/04



Wes-Tech Environmental

Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920



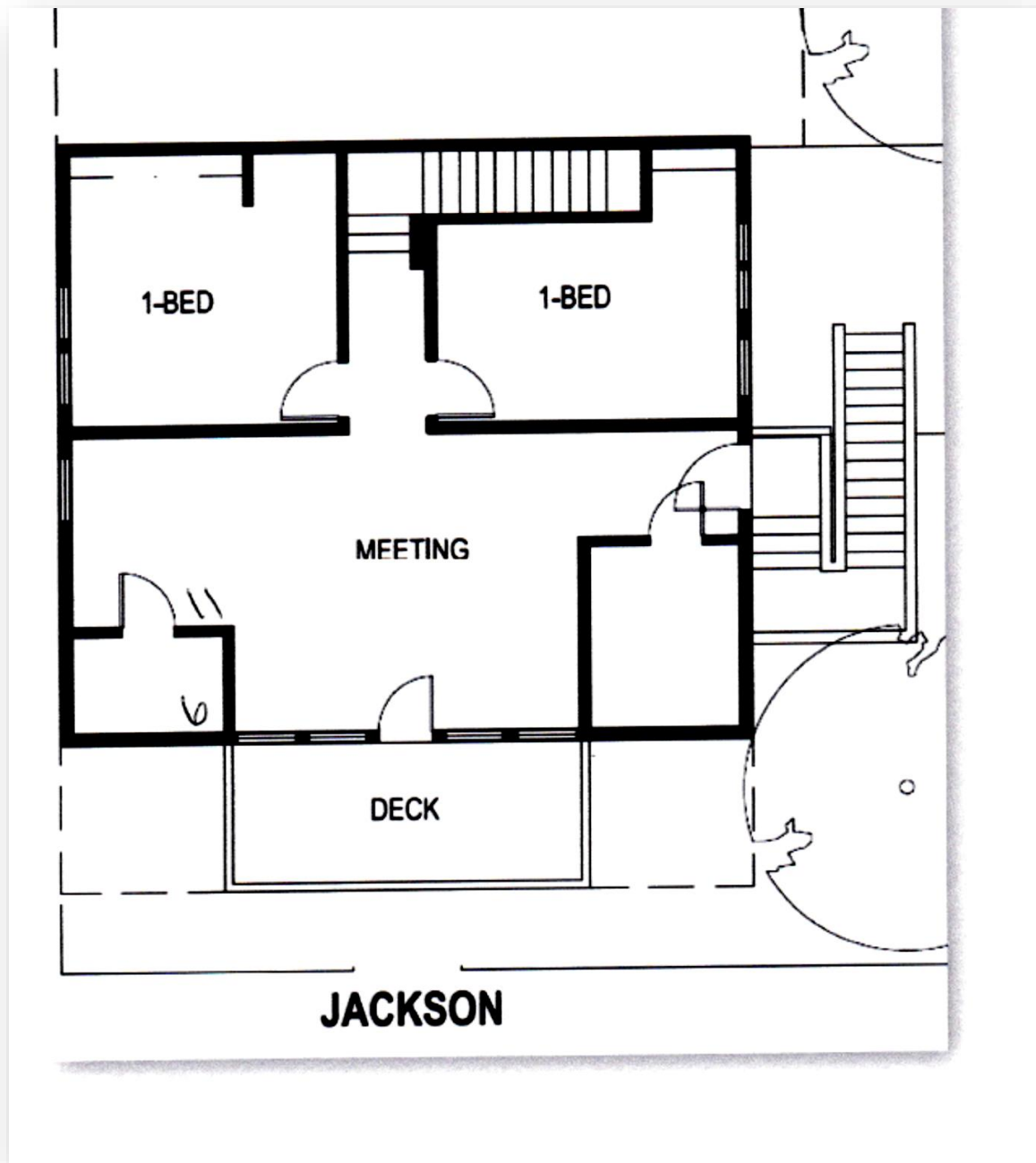


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American Industrial Hygiene Association #160920





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Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920





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Certified Asbestos Consultant (CAC) LIC # 05-3811

American Industrial Hygiene Association #160920





Regulatory Requirements

The following is a summary of the major asbestos notification and information requirements in 8 CCR 1529, 5203, 341.6-341.14 and the California Health & Safety Code. See the codes for the complete requirements. Note: Employers also have additional informational duties towards their employees under 8 CCR 1529, 1509 or 3203 (the Injury and Illness Prevention Program requirements for construction and general industry), 3204 (Access to Employee Exposure and Medical Records), as well as other Title 8 regulations.

Employers performing work subject to 8 CCR 1529:

- If less than 100 sq.ft. of asbestos-containing construction materials and therefore not subject to the asbestos registration rules, file a Report of Use with the Chief of DOSH (Cal/OSHA)
- Determine the location and quantity of asbestos-containing material (ACM) and/or presumed ACM (PACM) based on the criteria in 1529(k)(1); {ref. 1529(k)(3)(A)}
- If at a temporary worksite, notify the nearest Cal/OSHA District Enforcement Office 24 hours prior to work (ref. 1529(r) & 5203)
- Any incident resulting an employee exposure in excess of the PEL and/or excursion limit by reporting in writing to the Chief of DOSH within 15 days. (ref. 1529(r) & 5203)
- Through meetings or other methods, inform employees, building owner and other employers on site, prior to work, about the location and quantity of ACM and/or PACM, the nature of their work, requirements pertaining to regulated areas, as well as the means to prevent asbestos air contamination; and {ref. 1529(d)(1) & (k)(3)}
- Post a warning sign outside the regulated area that is understandable to employees working in and contiguous to the area {ref. 1529(e)(2) and (k)(7)}
- As soon as possible, notify affected employees regarding the results of personal air monitoring {ref. 1529(f)(5)}
- Within 10 days of completing the work, regarding the location and quantity of remaining asbestos, as well as any final monitoring results {ref. 1529(k)(3)(C)}

See 8 CCR 1529 for the exact requirements. There are additional notification duties to the local air quality district or the U.S.EPA.

Employers performing work subject to 8 CCR Article 2.5 Registration- Asbestos-Related Work:

- Send notices of temporary worksites to the nearest Cal/OSHA District Office 24 hours prior to the start of each job {ref. 341.9}
- Hold a pre-job safety meeting to discuss safety program and safe work practices with employees, their representatives, and the building owner or their representative (for work covered by asbestos registration) {ref. 341.11}
- Post a warning sign readable at 20 feet {ref. 341.10(a); see also 1529(e)(2) and (k)(7) for similar and additional requirements}
- Before the commencement of the work, provide a copy of the registration to the prime contractor and other employers at the site. Also, post a copy beside the Cal/OSHA poster. {ref. 341.10(b)}
- See 8 CCR, Article 2.5, for the exact requirements.



Building Owners:

Prior to beginning work, determine the location and quantity of ACM and/or PACM based on the criteria in 1529(k)(1); {ref. 1529(k)(2)(A)}

Notify in writing or by personal communication the following or their authorized representatives: {ref. 1529(k)(2)(B)}

- Prospective employers applying or bidding for work and all other employers with employees who will work in or adjacent to areas with such material
- The building owner's employees working in or adjacent to these areas; and
- Tenants who will occupy areas containing such material
- If they are owners of public and commercial buildings constructed prior to 1979 and know that the building contains asbestos-containing construction materials, provide information to all occupants. For more details view the regulations of the Health & Safety Code, Division 20, Chapter 10.4 Asbestos Notification, 25915-25919.7 at www.leginfo.ca.gov/calaw.html This code is enforced by city or county jurisdictions, not Cal/OSHA.
- If a school district, are required by the U.S. EPA to have a management plan and surveys of where asbestos is known or presumed to be present. Contact the U.S. EPA Region 9 Asbestos Regional Coordinator for information.

All Employers:

- Ascertain on a daily basis, the integrity of enclosures and or the effectiveness of other control methods used in regulated areas their employees are working adjacent to. {ref. 1529(d)(4)}
- If they discover their employees are exposed to asbestos they must protect them by, for example, removal from the area or performing an initial exposure assessment. ref. 1529(k)(4)}
- If they discover ACM or PACM they must inform the building owner and other employers of employees working at the work site within 24 hours {ref. 1529(k)(4)}
- In cases when material they reasonably believe to be asbestos has not been rendered harmless, to stop work in affected areas. See section 25914.2(c) of the California Health and Safety Code for the exact requirements.

General Contractors:

- Ascertain whether the asbestos contractor is in compliance with 8 CCR section 1529(d)(5)} and require them to come into compliance when necessary



Appendix A

Definitions of Terms and Assessment Criteria

This survey report organizes information on each suspect ACBM identified in tables located in Section 4. This section defines the terms used to describe materials listed in Section 4.

Material description contains the description of the suspect homogeneous asbestos containing building material.

Material Serial Number is used to reference the material for re-inspections, etc.

Asbestos type and content describes the type of asbestos and its percentage in the material.

Asbestos Results for positive materials are shown as a percentage. Samples having less than 1% asbestos are reported as containing "Trace" amounts of asbestos and samples with no detected asbestos are reported as "BLD" or below limit of detection.

Sample number(s) identifies a particular material sample obtained from a specific sample location. Sample numbers are used primarily for laboratory identification.

Sample Location identifies where the samples of this material were obtained.

Material Category categorizes each material as surfacing, TSI or miscellaneous.

Surfacing Materials - Asbestos containing materials that are sprayed-on, trowled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing on structural members, or other materials on surfaces for acoustical, fireproofing, or other purposes.

Thermal Systems Insulation (TSI) - Asbestos containing materials applied to pipes, fittings, boilers, breaching, tanks, ducts or other interior structural components to prevent heat loss or gain or water condensation.

Miscellaneous Materials - Asbestos containing materials applied to or a part of building components that are not classified as surfacing materials or thermal systems insulation.

Quantity & Units reports approximate total quantity per unit of measure for each material.

Building(s) & Floor(s) specifies where a material is located.

Material Location describes where the material is found throughout the building.

Material Condition identifies the material as Friable, Non-friable or Jacketed (for thermal systems insulation only) if asbestos is present.

Friable - An asbestos containing material that can be crumbled, pulverized or reduced to powder, when dry, by hand pressure, such as spray applied fireproofing on structural steel members, spray applied acoustical ceiling materials or damaged thermal systems insulation. Friable materials are of greatest concern due to their potential fiber release.



Non-Friable - An asbestos containing material where the asbestos is bound tightly in a matrix or sealed by a protective layer. Non-friable materials can become friable by being rendered to a crumbled, pulverized or powdered state, when dry, by crushing, sanding, sawing, shot-blasting, severe weathering or by other mechanically induced means. Common examples of non-friable materials are adhesives, floor tiles, transite and roofing materials.

Jacketed - An asbestos containing material applied to thermal systems insulation and “jacketed” with a protective outer layer such as canvas or metal to keep the material in good condition. Undamaged jacketed ACBM is considered non-friable. If the jacketing is damaged, the material is considered friable.

Damage Category describes the type of damage, if any, to the material. The following damage categories are used: None, Physical, Air, and Water.

Material Assessment identifies the condition of the material in relation to physical and water damage, delamination of the material from its substrate, the extent of the damage and the potential for damage from building conditions, such as, accessibility by building occupants, influence of vibration, etc. The six standard assessment categories ranked by hazard potential, with the first being the lowest hazard are as follow:

- 1) Potential for Damage,
- 2) Potential for Significant Damage,
- 3) Damaged,
- 4) Damaged with Potential for Damage,
- 5) Damaged with Potential for Significant Damage, and
- 6) Significantly Damaged.

Only friable materials are assessed under AHERA regulations. Non-friable materials, unless damaged, are not assessed and can be assumed to be in good condition.

Damaged - The damage or deterioration of the material results in inadequate cohesion or adhesion with crumbling, blistering, water stains, marring or otherwise abraded over less than one-tenth (1/10) of the surface if the damage is evenly distributed or one-fourth (1/4) if the damage is localized.

Significant Damage - The damage or deterioration of the material results in inadequate adhesion or cohesion and the damage is extensive and severe with one or more of the following characteristics: 1) Crumbling or blistering over at least one-tenth (1/10) of the surface if evenly distributed, one-fourth (1/4) if the damage is localized; 2) Areas of the material hanging from the surface, delaminated, or showing adhesive failure; 3) Water stains, gouges or marred.

Recommended Response suggests the appropriate options for controlling or maintaining ACBM in a safe manner. There are four options used:

Operations & Maintenance (O&M) - A program designed to “manage” asbestos in-place. As long as asbestos containing materials remain in a building, an O&M program should be instituted to alert maintenance personnel, custodial workers and outside vendors of the existence and location of these materials and to set a policy for the maintenance of these materials. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.



Repair - The restoration of damaged or deteriorated asbestos containing building materials to an intact condition. Once the intact condition is established, the material should be included in an O&M program. The material is usually only required to be removed if it is significantly damaged, prior to demolition of the building or if it will be disturbed by renovation activities.

Abate Due to Condition - This material is significantly damaged and is unsafe in its current condition. The access to the area should be restricted to personnel equipped with appropriate personal protection. This material should be properly removed by a licensed contractor using workers trained in the safe removal of asbestos.

Abate Prior to Renovation - This material should be properly removed prior to planned renovation activities by a licensed contractor using workers trained in the safe removal of asbestos. This recommendation is usually made only on survey reports prepared prior to planned renovation activities.

Comments & Damage Description contains any additional information and or specific details of material damage are noted here. **EPA Category** provides the appropriate material category as outlined in the NESHAPS regulation. The four options are friable, Category 1, Category 2, and needs determination.

Friable - Materials containing greater than 1% asbestos are always considered Regulated Asbestos Containing Materials (RACM) that require removal prior to building renovation or demolition activities that impact the material.

Category 1 - Materials that are bituminous non-friable and contain more than 1% asbestos that become RACM and require removal only when will be subject to grinding, cutting, sanding or abrading.

Category 2 - Materials that are non-friable and contain more than 1% asbestos that will have a high probability of being crumbled, pulverized or reduced to a powder by the demolition or renovation activity. These materials usually become RACM and will require removal.

Needs Determination - Materials that the individual designing the abatement and demolition project needs to inspect and evaluate to determine the potential for the material to become RACM and/or evaluate the asbestos content for the composite and individual layers of the material. For sheet rock with mudding compounds only, the EPA allows using the composite sample result. If the composite result by Point Counting the sample is below 1% asbestos, the material is not RACM.



Appendix B

Bulk Sampling Protocol and Analytical Methods

Bulk samples of suspect asbestos containing building materials were obtained using standard industrial hygiene techniques including wetting friable materials to minimize fiber release. When necessary, our personnel wore half-face air purifying respirators equipped with high efficiency particulate (HEPA) filters while obtaining samples.

Our sampling strategy for suspect friable surfacing materials was based on the guidelines outlined in the EPA publication "Asbestos in Buildings: Simplified Sampling Scheme for Friable Surfacing Materials," the procedures outlined in 40 CFR 763, Subpart E (ASHERA)

For each homogeneous material identified by visual inspection as suspect material, random samples are obtained. A bulk sample is randomly selected from each homogeneous material for first-round testing. If the sample is positive, the remaining samples are not analyzed; if the sample is negative, the other samples are submitted for study. Every sample must be reported negative if the material is to be considered non-asbestos containing.

The bulk samples were delivered to an independent laboratory that participates in the bulk sample proficiency analysis program conducted by the United States Environmental Protection Agency and is accredited by the National Voluntary Laboratory Program (NVLAP). The samples were analyzed using Polarized Light Microscopy (PLM) with dispersion staining to estimate the percent of asbestos composition by volume. Samples with no observable asbestiform minerals are designated as Non-Detect (ND). Samples in which asbestiform minerals are observed, but exist in concentrations of less than one percent (<1%), are designated as present in Trace (TR) amounts; all other samples are designated as asbestos containing with the appropriate percent of asbestos noted.