



**December 16, 2016**

## **Abatement Scope of Work and Specification (Revision 1)**

**Metropolitan Courthouse (19-T1)  
1945 South Hill Street  
Los Angeles, California  
RMAR 16-017-01**

Prepared for:

**Judicial Council of California**

Under contract to:

Barragan Corp International

41707 Winchester Rd

Suite 304

Temecula, CA 92590

Prepared By:

**Mark Smith**

Forensic Analytical Consulting Services

2959 Pacific Commerce Drive

Rancho Dominguez, California 90221

Office Phone # 310-668-5600

[msmith@forensicanalytical.com](mailto:msmith@forensicanalytical.com)

FACS Project #PJ30846

# Table of Contents

Section 1 - Scope of Work .....	1
Section 2 - General Requirements .....	3
Section 3 - Abatement Specification .....	13
Section 4 - Clean-up Procedures .....	22
Section 5 - Clearance Testing .....	24
Section 6 - Waste Disposal.....	26
Section 7 - Safety .....	28
Attachment 1: Certification of Visual Inspections	
Attachment 2: Certification of Final Visual Inspections	
APPENDIX A: Pre-Renovation Survey Report	

## 1.0 ABATEMENT SCOPE OF WORK

### 1.0 General

1.0.1 This work shall include:

- Proper removal and disposal of asbestos-containing materials impacted by the renovation project. Materials identified in the pre-renovation survey report as asbestos-containing materials are detailed in the survey report attached to this specification; refer to appendix A:
- Removal of any impacted lead roof flashings. All renovation work shall comply with the Cal/OSHA Lead in Construction Standard (8 CCR 1532.1) and Lead Safe Work Practices (CDPH Title 17 regulations). Lead flashings shall be recycled (after removing any adhered asbestos materials, such as roofing mastic).
- Construction and maintenance of temporary access ways as necessary, and preservation of fire exit pathways

The Trade Contractor shall perform the following tasks:

- (1) Obtain all required local, state, and federal permits,
- (2) Initial site cleanup,
- (3) Work area preparations,
- (4) Asbestos removal
- (5) Gross removal and fine cleaning,
- (6) Lock down encapsulation, as applicable
- (7) Final cleanup,
- (8) Disposal of asbestos-containing materials,

1.0.2 The Abatement Trade Contractor shall furnish all labor, materials, equipment, and services necessary, or required for the performance of the work in accordance with the contract documents and this technical specification, and all local, state, and federal regulations, statutes, or rules.

1.0.3 This work shall be done in strict accordance with the specifications. Compliance with all applicable Federal, State and local regulations and the use of the best available technology, procedures and methods for preparation, execution, clean up, disposal and safety are required. This compliance is the sole responsibility of the Abatement Trade Contractor (herein Trade Contractor).

1.0.4 Asbestos materials included in this scope for removal that have been identified and can be defined as ACBM, ACM and ACCM, are delineated in the asbestos report by Forensic Analytical Consulting Services (FACS) dated April 5, 2016, that is attached and incorporated into this specification (Reference Appendix A). All quantities given by the Owner or Owner's Representative (FACS, herein Consultant) are estimates and shall be confirmed by the Trade Contractor. **The Trade Contractor is responsible for field verification of all quantities impacted**

**by the renovation project and measurements, and shall issue his bid based solely on his measurements and inspections.** The Owner or Consultant shall not be responsible for failure of the Trade Contractor to verify quantities and measurements of materials should identified materials be present in greater quantities than the approximate quantities given.

- 1.0.5 The work shall also include construction and maintenance of temporary construction barriers and access ways as necessary. All access ways will be constructed according to the appropriate fire-rating as required by governing regulations.
- 1.0.6 The Trade Contractor shall ensure active utilities (phone, electrical, etc.) and all finishes scheduled to remain are not damaged during the project.
- 1.0.7 The Trade Contractor is reminded that:
  - a. The building will be occupied by court personnel and public.

## **1.1 Specific**

- 1.1.1 Work hours shall be as designated by the Owner.
- 1.1.2 Before any demolition activities begin, the Trade Contractor shall establish initial engineering controls, including, but not limited to, isolation of the HVAC system, and protection of the electrical and alarm panels, and smoke detectors.
- 1.1.3 The movement of asbestos-containing waste from the building shall only be performed during hours as designated by the Owner.
- 1.1.4 All polyethylene (plastic) sheeting shall be fire-retardant.

## **2.0 GENERAL REQUIREMENTS**

### **2.0 Furnished by Trade Contractor**

- 2.0.1 Trade Contractor shall, as a part of this Scope of Work, supply, install, properly maintain, and remove all temporary construction facilities and utilities necessary for full and complete performance of the project.
- 2.0.2 The type of facilities, move-in and move-out dates, and locations on jobsite shall be subject to and in accordance with the review and approval of Owner or Consultant. Such items shall include, but not be limited to, the following:
- (1) All equipment for the proper handling, movement, filtration, and or differential pressurization of workspace air.
  - (2) All temporary structures, including change rooms and or decontamination units.
  - (3) All sanitary facilities, including janitorial services, etc.
  - (4) First aid facilities.
  - (5) Communication devices.
  - (6) Transportation facilities, on and off site.
  - (7) Maintenance of Trade Contractor's lay-down, storage and work areas and roads within such areas.
  - (8) Rigging and scaffolding.
  - (9) Electric panel and distribution wiring. Connections to and disconnections from the power source shall be by the Trade Contractor.
  - (10) Any equipment necessary for the distribution of supply and the filtration of all water produced, used or retained at the site, and facilities for proper disposal of wastewater.
  - (11) Temporary lighting.

### **2.1 Furnished by Owner**

2.1.1 Owner or Owner's designee (Construction Manager, CMAR) shall supply or cause to be supplied the following temporary construction facilities and utilities to Trade Contractor, without cost to the Trade Contractor, for or in connection with the performance of the work.

- (1) Construction and potable water at points on the jobsite as designated by Owner's designee. Connections to and disconnections from the water supply shall be by the Trade Contractor.
- (2) Electrical power at least one point on job-site. Proper connections to and disconnections from the power supply shall be by the Trade Contractor.

## **2.2 Notices and Submittals**

**A Minimum of 5 Working Days Prior to the Commencement of the Work,** the Contractor shall submit all items in the below subsections to the Consultant, CMAR & JCC.

- 2.2.1 Copy of the Written Notice of Proposed Abatement activity to the applicable air pollution control agency(ies).
- 2.2.2 Copy of Written Notice of Proposed Abatement activity to the Cal/OSHA Regional office or any other agency having jurisdiction.
- 2.2.3 Written proof that all required permits, licenses, and registrations have been applied for and received. This shall include Asbestos Abatement Trade Contractor Licenses.
- 2.2.4 Transporter and disposal and recycling or facilities' permit documentation, demonstrating regulatory compliance for the facility to receive the type of waste to be disposed or material for recycling
- 2.2.5 A three-ring binder containing the following items for each Abatement Trade Contractor's employee and sub-Trade Contractor's employee that will be working inside a regulated area on this project (which shall be updated during the project as new workers are added to the abatement crew):
  - (1) Proof of employee medical exams as required by Cal/OSHA regulations, within the last 12 calendar months.
  - (2) Certification of respirator fit test, performed within the last 12 calendar months.
  - (3) Blood lead test results within the last 12 months for workers performing lead removal.
- 2.2.6 A detailed plan of the procedures proposed for use in complying with the requirements of this specification and applicable regulations. The Trade Contractor shall include in the plan the location and layout of the decontamination areas, methods to be used to assure the safety of the building occupants and public, and contingency plan if final clearance air testing does not pass required levels. The Trade Contractor shall expand upon the closing out of the building's HVAC system, method of removal to prohibit emissions from the work area (including fall-through of asbestos material or water into the building through roof openings, seams, and the like), and disposal of debris and contaminated material. *The work plan must also include information on any roof cutter equipment proposed to be used and the wetting and dust control methods that will be implemented (to ensure materials are removed adequately wet and that the discharge of visible emissions is prevented).* **The plan shall be reviewed by the Consultant, CMAR & JCC prior to the commencement of the work. All components of the plan must be in compliance with these specifications.** Any modifications required shall be reflected in a revised plan by the Trade Contractor prior to work progressing.

- 2.2.7 A contingency plan for emergencies including accidental release or emissions from the work area, fire, accident, power failure, differential air system failure, or any other event that may require modification or abridgement of decontamination or work area isolation procedures. Include in this plan specific procedures for decontamination or work area isolation. Note that nothing in this specification should impede safe exiting or providing of adequate medical attention in the event of an emergency.
- 2.2.8 Results of personal air sampling for asbestos and lead representative of employees' exposure when removing asbestos or lead materials similar to those identified for the scope of work on this project.
- 2.2.9 Sample of a Daily Supervisor's Log. *Daily logs generated during the project shall be submitted to the CMAR.*
- 2.2.10 When rental equipment is to be used in removal areas or in the transportation of waste materials, a copy of a written notification provided to the rental company informing them of the nature of the use shall be submitted.
- 2.2.11 The Trade Contractor shall provide legible copies of the Safety Data Sheets (SDS) and manufacturer's information sheet and instructions for all substances used in the course of the work and comply with all parts of 8 CCR 5194. Any substance or material for which the Owner or Consultant may object shall be immediately replaced with a substance or material that will be acceptable. Objections by the Owner or Consultant may be based on environmental issues, health and safety standards, or other issues of which the Owner or Consultant may express to the Trade Contractor. Delays resulting from the replacement of materials shall be solely at the Trade Contractor's cost.

### **2.3 Air Testing and Other Tests**

- 2.3.1 The Trade Contractor is solely responsible for providing all tests required by the specified applicable regulations, codes and standards. Trade Contractor will pay for these or any tests performed for their use. At minimum, 25% of workers performing asbestos abatement on each shift are required to have personal air monitoring conducted on a daily basis. Results shall be posted daily at the job site.
- 2.3.2 At their option, the Owner will provide additional air testing at the work site. The Owner will pay for these tests, except where payment by the Trade Contractor is required, as noted elsewhere in these specifications. These tests may include, but are not limited to:
- Clearance testing,
  - Work area samples,
  - Barrier samples,
  - Outside air samples, and
  - Personal samples.

## **2.4 Inspections by Trade Contractor**

- 2.4.1 The Trade Contractor acknowledges and agrees that he has sole and primary responsibility and obligations to the Owner to make inspections of his own work at all stages of construction, that he has sole responsibility to supervise or superintend the performance of the work, and that said work shall be in strict adherence and compliance with the methods materials, regulations, and required standards specified herein.
- 2.4.2 Prior to commencing the work, the Trade Contractor shall convene an initial construction meeting, recognized as the "Pre-construction conference". The Trade Contractor will provide at least 1-week advance notice to all participants prior to convening the Pre-Construction Conference. This is an organizational meeting to review safety issues, responsibilities and personnel assignments, to identify any visible damage to the existing structure or its condition, and to locate the containment and decontamination areas and temporary facilities including power, light, water, etc.
- 2.4.3 Any items for which the Trade Contractor will not be held responsible (whether pre-existing or anticipated to be affected by the abatement) shall be listed on a walk-through inspection report and agreed upon by the Owner. However, the Trade Contractor shall be held responsible for repairing, at his expense, any damage which was not listed, or which was the result of the abatement or his negligence.

## **2.5 Superintendent (Foreman), Craftsmen**

- 2.5.1 The Trade Contractor shall have a job superintendent/foreman present on the job site at all times that work is in progress. The superintendent shall be thoroughly familiar with and experienced at asbestos abatement and other related work and shall be familiar with and shall enforce the use of all safety procedures and equipment. He shall be knowledgeable of all EPA, OSHA and NIOSH requirements and guidelines. Superintendent shall have successfully completed and passed an examination for a 40-hour Cal/OSHA approved asbestos abatement training course.
- 2.5.2 The superintendent assigned to this project shall be able to read and speak English fluently and be able to communicate with the Consultant in a professional and constructive manner.
- 2.5.3 Skilled craftsmen experienced in each respective trade shall execute all phases of the work.

## **2.6 Disposal of Wastewater**

- 2.6.1 Any water produced by the decontamination of items removed from the work area or persons shall be collected; filtered through a system capable of trapping particles 5 microns and larger, specifically designed to remove asbestos fibers;

and disposed into a local sanitary system. (Waste water resulting from water blast procedures, or equivalent, shall be containerized and transported to an appropriately permitted waste processing facility.)

- 2.6.2 It is the Trade Contractor's responsibility to comply with any local wastewater systems' regulation regarding the disposal of wastewater from asbestos abatement activities.

## **2.7 Waste Disposal Sites and Methods**

- 2.7.1 The Trade Contractor shall not dispose of any asbestos-contaminated waste, debris, or refuse in any location or manner other than the pre-established, approved landfill, using methods specified herein, and in accordance with Federal State, or local regulations.
- 2.7.2 The Trade Contractor shall not store any bags, drums, or wrapped asbestos-containing materials or other waste at any location inside or outside the building, other than temporarily staging inside the work area, or an approved and properly prepared fully-enclosed container which shall be locked at all times when not being loaded by the Trade Contractor. ***All asbestos waste shall be removed from the work area after each shift or when the work is left unattended. At no time shall the Trade Contractor use the regulated area as a storage location for waste.***

## **2.8 Toilet Facilities**

- 2.8.1 The Trade Contractor shall provide adequate toilet facilities outside of the work area for the exclusive use by employees of trade contractor, and to be removed upon completion of scope of work. No worker shall modify, alter, or by any means use the existing building drain, or toilet facilities inside the work area; nor shall any worker use the decontamination unit shower for toileting. ***Any shower used for this purpose shall be disassembled and disinfected by the Trade Contractor. Any down-time as a result of this procedure shall be at the Trade Contractor's expense.***
- 2.8.2 All required decontamination procedures shall be followed prior to the use of these facilities.

## **2.9 Project Records**

- 2.9.1 The Trade Contractor shall maintain project records, which will, at a minimum contain and conform to the following:
- Documentation of all Notices and Submittals
  - Permits/Licenses/Registrations
  - Medical Documentation – Proof of employee physicals
  - Employee respirator fit test documentation

- Employee training documentation
- Results of personal air sampling
- Differential pressure monitor recording charts (where applicable)
- Work area entry sign-in log, completed daily, or as warranted, with the following information: Employee/visitor name, entry/exit time, company name (if visitor), and date
- Description of daily work performed
- Any damages to the structure or furnishings
- Any loss of differential air pressure, if applicable
- Any accidents or injuries (including minor accidents)
- Results of any air samples collected by Trade Contractor
- Signature of superintendent
- Waste or water testing records, if applicable
- Copies of all waste manifests and recycling receipts
- Copies of project-related correspondence

2.9.2 These records shall be kept up to date and available at the work site. **Upon completion of site work, one (1) copy of the required records shall be submitted to the Owner within 30 days.**

2.9.3 The Trade Contractor shall not request final payment until the Owner has reviewed the final submittal package described above.

## **2.10 Work Area Communications**

2.10.1 Before work begins the Trade Contractor shall provide 2-way communication equipment capable of linking the personnel in the work area to those stationed outside, so that communications can be maintained without worker decontamination. **This system shall be available to the Consultant to allow communications with the foreman inside containment.** This system shall remain operational until the containment has passed final clearance and the Consultant has approved reoccupation.

## **2.11 Authority to Stop Work**

2.11.1 The Owner or Consultant has the authority to stop any or all activities at any time that conditions are not within these specifications, contractual restrictions, or any applicable regulations; or that an unsafe condition exists. The decision to stop work is solely at the discretion of the Owner and Consultant.

2.11.2 The “stopped” activity shall not continue until the conditions have been corrected to the satisfaction of the Owner or Consultant.

- 2.11.3 Standby time occurring during a work stoppage for the above-described conditions shall be at the Trade Contractor's expense and shall not be a valid reason for delay in scheduled completion of project.

## **2.12 Codes and Regulations**

- 2.12.1 **GENERAL APPLICABILITY OF CODES, REGULATIONS, AND STANDARDS:** Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, and standards have the same force and effect (and are made a part of the contract documents by reference) as if copied directly into the contract documents, or as if published copies are bound herewith. The most current issue of each document shall apply. Where conflict among requirements or with these specifications exists, the more strict or stringent requirement or interpretation shall apply.

1. **FEDERAL REGULATIONS:** Those which govern abatement work or hauling and disposal of waste materials include but are not limited to the following:

U.S. Department of Labor, Occupational Safety and Health Administration (OSHA), including but not limited to:

- a. Asbestos Regulations Title 29, Part 1910, Section 1001 of the Code of Federal Regulations
- b. Respiratory Protection Title 29, Part 1910, Section 134 of the Code of Federal Regulations
- c. Construction Industry Title 29, Part 1926.1101, of the Code of Federal Regulations
- d. Access to Employee Exposure & Medical Records Title 29, Part 1910, Section 20 of the Code of Federal Regulations
- e. Hazard Communication Title 29, Part 1910, Section 1200 of the Code of Federal Regulations
- f. Specifications for Accident Prevention Signs and Tags Title 29, Part 1910, Section 145 of the Code of Federal Regulations

U.S. Environmental Protection Agency (EPA) including but not limited to:

- g. Worker Protection Rule  
40 CFR Part 763, Subpart G  
CPTS 62044, FLR 2843-9  
Federal Register, Vol. 50, No. 134, 7/12/85
- h. Regulation for Asbestos

- Title 40, Part 61, Sub-part A of the Code of Federal Regulations
  - i. Regulation for Lead
    - Title 40, Part 61, Sub-part A of the Code of Federal Regulations
  - j. National Emission Standard for Asbestos
    - Title 40, Part 61, Subpart M (Revised Subpart B) of the Code of Federal Regulations
  - k. Asbestos Hazard Emergency Response Act (AHERA)
    - Regulations 40 CFR 763 Subpart E

U.S. Department of Transportation (DOT), including but not limited to:

- l. Hazardous Substances: Final Rule
  - Regulation 49 CFR, Parts 171 and 172.

**2. STATE AND LOCAL REGULATIONS:** Abide by all state and local regulations which govern abatement work or hauling and disposal of waste materials including but not limited to:

**California** – including but not limited to:

- a. Asbestos Construction Safety Order
  - Title 8, California Administrative Code, Section 1529
- b. Respiratory Protection
  - Title 8, California Administrative Code, Section 5144
- c. Medical and Environmental Records
  - Title 8, California Administrative Code, Section 3204
- d. Registration and Permits
  - Title 8, California Administrative Code, Section 341
- e. Hazardous Wastes
  - Title 13, Title 22
- f. Safe Drinking Water and Toxic Enforcement Act of 1986
  - Title 22, California Administrative Code, Division 2, Section 12000.
- g. Lead Construction Safety Order
  - Title 8, California Administrative Code, Section 1532.1

- h. California Dept. of Public Health Lead Regulations  
Accreditation, Certification, and Work Practices  
For Lead-Based Paint and Lead Hazards  
Title 17, California Administrative Code, Division 1, Chapter 8

California Labor Code, Division 5 (beginning with Section 6300)

- i. Registration for Asbestos Related Work  
Section 6501.5
- j. Asbestos - Defined  
Section 6501.7
- k. Asbestos Related Work - Defined  
Section 6501.8
- l. Determination if Asbestos is Present  
Section 6501.9
- m. Permits-Issuance Requirements  
Section 6502
- n. Safety Conference - Asbestos Handling Jobs  
Section 6503

California Health and Safety Code, Division 20 (commencing with Section 24200)

- o. Disposal (Section 25000)

California Senate and Assembly Bills:

- p. AB 2040 Asbestos Abatement (chapter 1587 of the statutes of 1985)
- q. SB 2575 Asbestos Abatement (chapter 1443 of the statutes of 1986)
- r. SB 2572 Asbestos Abatement (chapter 1451 of the statutes of 1986)
- s. AB 1809 Asbestos Abatement (chapter 574 of the statutes of 1986)
- t. AB 2070 Asbestos Abatement (chapter 116 of the statutes of 1986)

**Regional and local** – including but not limited to:

- u. South Coast Air Quality Management District

3. **STANDARDS:** Those which govern abatement work or hauling and disposal of waste materials include but are not limited to the following:

American National Standards Institute (ANSI)  
1430 Broadway New York, New York 10018 (212) 354-3300

- a. Fundamentals Governing the Design and Operation of Local Exhaust Systems Publication Z9.2-79
- b. Practices for Respiratory Protection Publication Z88.2-80

4. **EPA GUIDANCE DOCUMENTS:** Those which discuss asbestos abatement work or hauling and disposal of asbestos waste materials are listed below for the Trade Contractor's information only. These documents do not describe the work and are not a part of the work of this contract.

- a. Guidance for Controlling Asbestos-Containing Materials in Buildings (Purple Book) EPA 560/5-85-024
- b. Asbestos Waste Management Guidance. EPA 530-SW-85-007.

5. **HUD GUIDELINES :** Those which discuss lead remediation work or hauling and disposal of lead waste materials are listed below for the Trade Contractor's information only. These documents do not describe the work and are not a part of the work of this contract.

- a. Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing, U.S. Department of Housing and Urban Development, Office of Healthy Homes and Lead Hazard Control (2012)

## **2.13 Warning Signs**

- 2.13.1 The Trade Contractor shall adhere to all warnings, labels, and posting of such notices specified herein or required by Federal, State, or Local agencies. These notices shall be posted in English and if appropriate, in any other language necessary for all workers and visitors to clearly understand.

### **3.0 ABATEMENT SPECIFICATION**

#### **3.1 Work Area**

- 3.1.1 Each work area shall be discussed with the Consultant prior to preparation. As a minimum, topics will include ingress and egress points, work areas, containment procedures, and decontamination system. This may be accomplished at the pre-construction conference.
- 3.1.2 Prior to commencing any preparation of the work area(s) for removal operations, the Trade Contractor shall post all required documents, arrange for the lock out of all electrical and HVAC (including adjacent HVAC intakes within a 20 foot radius outside of the work area perimeter), and erect any physical barriers in order that the work area may be secured (as applicable). Any project-required records shall be up to date and available for review at the job site.
- 3.1.3 Any worker for which proper documentation has not been received by the Consultant shall not be allowed to perform any duties other than general maintenance activities until such time as written documentation is received. General maintenance is restricted to the duties that do not require entrance to regulated work areas and/or the use of respiratory protection equipment.
- 3.1.4 The Trade Contractor is responsible for work area security upon establishing and preparing the work area.

***Note: Only Authorized Visitors Will Be Allowed On the Work Site***

#### **3.2 Lead-Containing Components**

- 3.2.1 Lead roof flashing is present at various areas of the roof.
- 3.2.2 The Trade Contractor is responsible for the recycling (in accordance with all governing regulations) of all known or assumed lead-containing components that are affected by the renovation project (following removal of any adhered asbestos materials, such as roof mastics). If components can be shown not to contain hazardous substances, then they may be handled accordingly.

#### **3.3 Initial Site Clean-Up**

- 3.3.1 Shut down electric power, as applicable. Provide temporary power and lighting and ensure safe installation of temporary power sources and equipment per applicable electrical code requirements, including ground fault circuit interrupters (GFCI).

- 3.3.2 Shut down, or arrange for shut down, and then isolate heating, cooling, and ventilating air systems and install critical barriers.
- 3.3.3 Moveable and loose items located in the work area and not removed by the Owner shall be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and shall be removed from the work areas to a temporary location designated by the Owner. The items will be received by and protected from future damage or loss by the Owner, and shall be relocated by the Owner. Non-moveable items shall be protected in place.

#### **3.4 Work Area Preparation**

- 3.4.1 Building envelope (roof level) shall be completely sealed airtight and contained. All openings shall be sealed securely with plastic sheeting. Any fixed objects within the proposed work area will be cleaned using HEPA vacuum equipment and/or wet cleaning methods as appropriate, and enclosed with the two (2) separate layers of plastic sheeting.
- 3.4.2 Areas immediately adjacent to removal areas such as corridors or hallways which do not receive asbestos material removal, but are necessary routes to and from work areas, shall be protected with plastic on floors, walls, and ceilings. Openings from these areas into areas where asbestos material is removed shall have curtained doorways to minimize fiber release into other areas.
- 3.4.3 Establish emergency and fire exits from the work areas in accordance with code. Additionally, the abatement trade contractor shall not block existing fire exits.

**All exits shall be marked in bold lettering “EXIT” or “Emergency Exit”**

- 3.4.4 Install Asbestos Abatement Trade Contractor’s communication equipment. Equipment should be operating properly and maintained as such during removal and clean-up operation (see Section 2.11)

#### **3.4.5 Preparation - Mini-Enclosure (Drain replacement activities)**

The following describes the requirements for mini-enclosure preparation during abatement work, as required to facilitate roof drain replacement (potentially impacting fireproofing or other asbestos containing materials at the building interior):

A. Contractor shall construct all mini-enclosures using rigid framing (e.g. fire-rated wood, metal or PVC tubing) to support barriers. For fireproofing, the framing shall extend through any suspended ceiling grid and attach to (or be positioned directly adjacent to the roof deck).

B. Mini-enclosures shall be sized to allow sufficient space for two workers to

work efficiently and comfortably.

C. Both sides of the framing shall be covered with a layer of 6-mil. fire-retardant polyethylene sheeting with staggered joints and sealed in place.

D. Contractor shall construct a small change room of 6-mil. polyethylene sheeting and rigid framing. The change room shall be contiguous to the mini enclosure, and shall be adequate in size to allow workers to vacuum off protective coveralls and remove them prior to donning new coveralls and, if applicable, proceeding to the central worker decontamination facility. Clean, hot and cold, potable water and clean towels shall be available in the change room for workers to wash hands, arms and face.

E. Contractor shall construct a central worker decontamination facility as specified in Section 3.5.

F. Establish negative air pressure. Air filtration devices shall be situated in a manner as to move contaminated air away from the breathing zone of the worker and toward the filtration device.

G. Contractor shall use local exhaust ventilation where required by applicable regulation.

### **3.5 Decontamination Enclosure Systems**

- 3.5.1 The decontamination enclosure systems shall be constructed, affixed, and connected in such a manner as not to compromise the air-tightness of the containment. For work areas where roofing is removed manually (no use of roof cutters or powered equipment for removal), the decontamination enclosure does not require a shower (two-stage decon may be used).
- 3.5.2 Build suitable wood or metal stud frame; or use an existing room or enclosure approved by the Consultant. Portable, pre-fabricated units may be used if approved by the Consultant. Approval will be based upon, but not limited to, construction, floor plan, dimensions, materials, sizes, thickness, plumbing, electrical outlets, etc.
- 3.5.3 Connect to work area with framed-in tunnels, or to work area ingress/egress point.
- 3.5.4 In all cases, access between contaminated and uncontaminated rooms or areas shall be through a decontamination enclosure system. In all cases, access between any two rooms within the decontamination enclosure shall be through an air lock with two overlapping (Z-flap) curtained doorways.

- 3.5.5 The decontamination Enclosure system shall be maintained to ensure that the barriers, air locks, and plastic linings are effectively sealed and taped. Repairs shall be undertaken immediately upon discovery of a defect.
- 3.5.6 Visually inspect and thoroughly clean the Decontamination Enclosure System at the beginning and the end of each work shift.
- 3.5.7 Prefabricated showers shall be cleaned upon arrival at the jobsite. Consultant will approve the showers before putting into service. **At no time shall the Asbestos Abatement Trade Contractor's workers use the showers as toilet facilities.**

3.5.8 Worker and visitor Decontamination Enclosure:

- (1) Construct a worker's and visitor's decontamination enclosure adjoining the work area consisting of three (3) totally enclosed chambers: shower room, flanked by an equipment room, and a clean room.
- (2) The equipment room shall contain an air lock leading to the shower room. In addition, the equipment room shall:
  - (a) Contain a marked receptacle for the discarding of contaminated clothing prior to entering the shower room.
  - (b) Contain a marked receptacle for reusable clothing which is contaminated and is not to be removed from the regulated area.
- (3) The shower room shall be connected to the equipment room and the clean room by an air lock. An additional pan shall be placed below the stall of sufficient size to contain five (5) cubic feet of water. It shall contain the following:
  - (a) At least one shower with hot and cold or warm water. If necessary, Trade Contractor shall provide portable hot water heater to supply hot water.
  - (b) Removable shower grate approved by Consultant.
  - (c) Sufficient soap, shampoo, and disposable towels at all times.
  - (d) Opaque curtains at each air lock.
- (4) The shower room shall not leak, and the water shall be appropriately filtered and/or properly disposed.
- (5) The clean room shall be connected to the shower room by one air lock, with a curtained doorway leading to any other non-contaminated space within the Worker Decontamination Enclosure.
  - (a) It shall be large enough to provide storage for the worker's street clothes, towels, or any other non-contaminated items. Alternate clean storage area may be made available upon request/as required.

3.6.10 Equipment Decontamination Enclosure:

- (1) Construct an equipment decontamination enclosure consisting of two (2) totally enclosed chambers: a washroom and a holding area.
  - (a) The washroom constituting an air lock shall be connected to the holding area by a curtained doorway.

- (b) The holding area will be connected to any uncontaminated area by a curtained doorway.
- (2) These spaces shall be for the cleaning and decontamination of bagged wastes. In addition, this is preferred ingress and egress point for equipment. All equipment will be thoroughly decontaminated before removal to an uncontaminated area.
- (3) Water shall be collected, filtered, and/or properly disposed (see General Requirements).

### **3.7 Personal Protective Equipment and Decontamination Steps**

- 3.7.1 Personnel inside the work area(s) shall wear adequate personal protective equipment. At a minimum this shall include full-body disposable clothing and a half-face air purifying respirator.
- 3.7.2 Any person entering the work area shall:
  - (1) Remove **all** street clothes in a clean change room and put on clean disposable protective clothing.
  - (2) Put on and utilize the proper respiratory equipment. Proceed through the decontamination unit into the work area.
- 3.7.3 Any person exiting the work area shall:
  - (1) Remove any gross contamination while still in the work area.
  - (2) Proceed to the dirty change room and remove the protective clothing and discard it as contaminated waste.
  - (3) Enter the shower area and thoroughly wash body and hair and decontaminate respirator (for removal via manual methods, decontaminate with a HEPA vacuum or wet wipes/spray), then proceed through the air lock into the clean change room.
  - (4) Any contaminated clothing (including footwear) shall remain in the dirty room and be discarded as contaminated waste, unless they can be properly decontaminated.

### **3.08 Final Work Area Preparation**

- 3.08.1 All drain lines, conduit, and pipes or other components that will remain inside the work area but not subjected to abatement procedures shall be wet wiped and prepared with a minimum of two (2) separate layers of 4-mil plastic securely fastened with tape and/or glue.

### **3.11 Pre-Abatement Inspection**

- 3.08.1 Prior to the beginning of removal activities, the Trade Contractor shall verify completion of preparation and request the Consultant to conduct an inspection of the work area. The purpose of this inspection will be to visually determine if all

appropriate procedures, methods, and measures have been adhered to prior to full abatement. It will include:

- (1) Observation of the work area,
- (2) Observation of barriers, air locks, curtained doorways and emergency exits (as applicable),
- (3) Observation of the Decontamination Enclosure System,
- (4) Observation of respiratory protection equipment,
- (5) Observation to verify that all notices and warnings have been posted,
- (6) Observation to verify the Asbestos Abatement Trade Contractor's workers have proper submittals and the daily log book is up to date.

3.08.2 No abatement shall commence until all items detailed in this specification are in compliance and the Consultant has given written approval to begin asbestos removal.

### **3.09 Removal Activities - General**

3.09.1 The Consultant shall approve all methods for the removal. If solvents are used, the solvent shall be required to conform to a minimum of the following standards:

- (1) Flash Point (open or closed cup) >200 °F,
- (2) Auto Ignition Temperature >6000 °F,
- (3) pH Neutral
- (4) Aromatic Vapors <100 PPM, and
- (5) Will not react with water.

3.09.2 The Trade Contractor shall use respirator cartridges capable of filtering any applicable air contaminants in addition to the HEPA filter. Only cartridges manufactured with both capabilities shall be used for protection against a combination of contaminants. Taped or glued stacked individual cartridges are not acceptable.

3.09.3 Spray material with amended water, using equipment recommended by the manufacturer capable of providing an airless "mist" application to reduce the release of fibers and sufficient to prevent visible emissions. Saturate the material sufficiently so that the amended water penetrates to the substrate without causing excess dripping. Using wet methods, remove asbestos-containing materials. Removed asbestos and contaminated items shall be promptly bagged/burrito wrapped. These materials shall not be placed into lined dumpsters/containers without being properly bagged. Shrouded equipment (with integral wetting and HEPA filtration) is required for all mechanical removal that produces friable asbestos.

3.09.4 Do not allow the material to dry out. Removed materials shall be promptly bagged/burrito wrapped. These materials shall not be placed into lined dumpsters/containers without being properly bagged.

3.09.5 When the removal procedure has been completed, the Trade Contractor shall remove all debris and dispose of it in accordance to local, state, and federal regulations.

3.09.6 For lead flashing waste, the waste shall be recycled.

### **3.10 Removal Activities**

#### **Roofing**

3.10.1 The abatement activity will include asbestos-containing roofing material removal as specified by the Owner and/or Owner's Representative. The Abatement Trade Contractor shall be responsible for adequately protecting its employees, the building and work area from injury or damage which may arise from the effects of inclement weather such as rain or high winds. The Abatement Trade Contractor shall coordinate access to all required areas of the facility with the Owner and/or Owners Representative. The Abatement Trade Contractor shall coordinate roofing removal with Owner and Re-Roofing Contractor.

3.10.2 It is recommended the actual removal of the roofing material be done in small sections, as appropriate. If the Trade Contractor elects to saw cut, grind or abrade (or use other mechanical means) to remove the ACM then said portion of the ACM will become RACM (friable) during the removal and will need to be handled and disposed accordingly.

3.10.3 The Trade Contractor shall post appropriate warning signage and establish the regulated area as described above.

- At a minimum contractor will require workers to wear half-mask air purifying respirators with HEPA cartridges and **blue** full-body disposable coveralls. No street clothes may be worn under the coveralls; each worker shall take a full body shower or decontaminate within the two-stage decon prior to leaving the regulated area.
- High-speed abrasive disc saws that are not equipped with appropriate engineering controls shall not be used. Use of compressed air for removal of asbestos is prohibited. Dry sweeping is prohibited.
- An appropriate mechanical device, sealed chute, or other acceptable method shall be used for safe transfer of the containerized asbestos-containing waste material from the roof to the ground. Chutes shall be sealed in a manner that prevents dust or fibers from escaping during use. All waste must be bagged prior to removal from roof work area. Use of alternate methods, such as dust tight chute attached to sealed roll-off bin requires pre-approval prior to project start.
- If encapsulant is used, encapsulate substrate surface using an encapsulant that will not prevent adhesion of replacement roofing.

- The Trade Contractor shall install fall protection systems in accordance with 8 CCR 1669.

3.10.4 The Environmental Consultant will inspect and approve all controls before any abatement is undertaken.

#### 3.10.5 Abatement of Surfacing Materials

- Mist the ACM with amended water using an airless sprayer to reduce the release of fibers. Saturate the material sufficiently to wet it to the substrate without excessive dripping or delamination. Mist the material continuously during the abatement work to keep it damp and minimize asbestos fiber dispersion.
- Do not allow water to accumulate on the floor.
- Remove the ACM and any overspray from all surfaces. When surfacing materials are applied to a substrate that is not cleanable, (e.g. plaster on wood lath or acoustical ceiling sprayed-on gypsum board) the contractor shall also abate the substrate.
- The ACM shall be removed in small sections (limited to amount required to facilitate drain removal, approximately 6 square feet per drain location), placing it in labeled 6-mil. polyethylene disposal bags. Do not allow material to dry before sealing bags.
- Do not allow ACM to accumulate on the floor or other surfaces in the work area.
- After removing the ACM, wet wipe all surfaces and use a nylon brush to remove all remaining material.

#### 3.10.6 Gypsum Wallboard and Joint Tape Compound

- Mist the wallboard with amended water using an airless sprayer to reduce the release of fibers. Saturate the wallboard sufficiently to wet it to the substrate without excessive dripping or delamination. Mist the material continuously during the abatement work to keep it damp and minimize asbestos fiber dispersion.
- Remove the wallboard in a manner so as to minimize the generation of airborne fibers.
- Power saws shall not be used unless equipped with local exhaust ventilation.
- The wallboard shall be removed in small sections, placing it in labeled 6-mil. polyethylene disposal bags. Do not allow material to dry before

sealing bags.

- e. Do not allow wallboard to accumulate on the floor or other surfaces in the work area.
- f. After removing the wallboard, wet wipe all surfaces and use a nylon brush to remove all remaining material.

## **4.0 CLEAN-UP PROCEDURES**

### **4.1 Gross Clean-Up**

Immediately upon removal of asbestos or lead materials, the following clean-up procedures shall commence:

- 4.1.1 Collect the material that has been removed and place it into sealable plastic bags (6 mil thick minimum). Each bag shall be cleaned, wet wiped, evacuated, sealed airtight, and removed from the work area. All plastic bags and containers must be imprinted with required and Specified Warnings and/or Labels.
- 4.1.2 Clean the external surfaces of the containers thoroughly in the work area. Next, move the bags out of the Work area into the Equipment Decontamination Enclosure. Proper equipment decontamination requires:
  - (1) Remove gross contamination in work area
  - (2) In Washroom, wet clean the bags/containers thoroughly
  - (3) Place in a clear sealable plastic bag (6-mil thick minimum) with required warnings and/or labels.
  - (4) Seal with as little free air space as possible, twist top of bag, gooseneck, and wrap with duct tape.
  - (5) Move bag/container into Holding Area
  - (6) Once in the Holding Area, all bags and containers shall be handled by workers, wearing respiratory protection and uncontaminated, clean protective clothing entering from the uncontaminated area. No worker shall exit through the Equipment Decontamination Enclosure.
- 4.1.3 The loading out of waste shall be as specified by the Owner. The Trade Contractor shall lock out the elevator during movement of these materials to prevent unauthorized personnel from entering (as applicable). At no time shall the Trade Contractor leave bags/drums of waste material unattended.
- 4.1.4 Bags and/or drums must be stored in a secured (locked) fully enclosed container which has been lined with a minimum of one layer of 6-mil plastic. Containers should be removed to predetermined and authorized landfills as soon as possible.
- 4.1.5 The Trade Contractor shall not store any bags, drums, or wrapped asbestos or lead waste materials at any location inside or outside the building, other than inside the approved container which shall remain locked at all times.
- 4.1.6 All waste containers shall be properly labeled according to 8 CCR 1529, 5194 (HAZCOM), 49 CFR 171-179 (USDOT), 40 CFR 61 Subpart M (NESHAP), and any local regulations and state regulations as required.

- 4.1.7 The Trade Contractor shall maintain a clean work area at all times and shall thoroughly clean the decontamination enclosure system at the end of each work day or work shift.

## **4.2 Final Clean-Up Sequence**

- 4.2.1 Following abatement activities, clean-up remaining gross accumulations of waste materials.
- 4.2.2 Remove all visible accumulations of debris.
- 4.2.3 Wet clean and HEPA vacuum the entire work area.
- 4.2.4 All equipment and containers shall be decontaminated and removed, with the exception of the equipment necessary to perform the final visual clearance by the Consultant.
- 4.2.5 Remove the first layer of plastic sheeting from the vents, and HVAC ducts (as applicable) and dispose of it as asbestos-contaminated waste. Care should be taken to avoid pulling down the remaining plastic sheeting (critical barriers).
- 4.2.6 Wet clean and HEPA vacuum the work area again.
- 4.2.7 The Trade Contractor shall request final visual clearance by the Consultant when the following criteria have been met:
- (1) Completion of abatement activities,
  - (2) Adequate clean-up of the work area and decontamination facility, and successfully inspected by Trade Contractor's Superintendent,
  - (3) Proper disposal of all waste materials,
  - (4) Removal of all unnecessary equipment.
- 4.2.8 Complete the "Certificate of Pre-Encapsulation Visual Inspection" (See Attachment 1). This form shall be completed by the Trade Contractor following completion of removal work, cleanup and visual inspection of the work area, and prior to application of post-removal encapsulant, and submitted to the Environmental Consultant's representative. The Environmental Consultant shall perform a visual inspection to verify the Trade Contractor's findings. Following successful visual inspection by the Trade Contractor and the Environmental Consultant, use of encapsulant shall be at the discretion of the trade contractor and subject to the owner's approval.

## **5.0 CLEARANCE TESTING**

### **5.1 Work Area Encapsulation and Plastic Removal**

- 5.1.1 When the containment has met the criterion for final visual clearance (no visible dust) the Trade Contractor shall perform the following task: All areas of the regulated area where asbestos-containing/asbestos-contaminated material has been removed, and all plastic sheeting shall receive one (1) coat of lockdown encapsulant.

**NOTE: Use of encapsulant subject to Owner approval.**

- 5.1.2 All necessary containment devices, including the decontamination facility shall remain in place and operational.
- 5.1.3 Re-clean and HEPA vacuum the work area.
- 5.1.4 The Consultant will visually observe the work area. Once the area is approved, the Consultant may continue with Final Air Clearance Testing.
- 5.1.5 Complete the "Certificate of Final Visual Inspection" (See Attachment 2). This form shall be completed by the Trade Contractor following completion of removal work, cleanup and final visual inspection of the work area and submitted to the Environmental Consultant's representative. The Environmental Consultant shall perform a visual inspection to verify the Trade Contractor's findings, prior to collection of final clearance air samples (clearance air samples to be collected only for a contained work area).

### **5.2 Final Clearance**

- 5.2.1 *For manual roofing removal work, clearance will be achieved by means of a visual inspection only.* For areas where containment is required, the standards for final asbestos air clearance are: equal to, or less than 0.01 fibers/cc of air as determined by Phase Contrast Microscopy (PCM), in accordance with NIOSH Method 7400 protocol; or 70 structures/mm<sup>2</sup> as determined by Transmission Electron Microscopy (TEM) in accordance with AHERA protocol. All samples collected inside the work area and in the clean room must meet the standard of the utilized air sampling protocol.
- 5.2.3 If the testing does not meet the clearance criterion and re-cleaning and retesting is required, the Trade Contractor shall be required to comply with the clean-up procedures and clearance testing standards as previously described for each re-test.
- 5.2.5 Once the work area has met the criterion for clearance, the Trade Contractor shall remove the remaining critical barriers in the work area. The decontamination

chamber(s) shall be disassembled and removed from the work area. Dispose of all plastic and expendables used in the completion of the work as contaminated waste.

- 5.2.6 If any materials requiring removal remain where the decontamination chamber or other facilities were located, the Trade Contractor shall remove them using a portable containment and the methods described previously herein.

## **6.0 DISPOSAL OF WASTE**

### **6.1 Description of Requirements**

- 6.1.1 Package all asbestos-containing waste material and contaminated debris in accordance with the provisions of this Specification and applicable state and federal regulations, and dispose of the waste at a landfill approved for the disposal of asbestos in compliance with all applicable local, state and federal regulations.
- 6.1.2 Disposal Bags: Provide 6 mil thick leak-tight polyethylene bags labeled with two labels and text as described by local, state and federal regulations. Alternate methods require written pre-approval prior to project start.
- 6.1.2 For lead shielding waste, package as necessary to prevent container damage and recycle, as appropriate.

### **6.2 Execution**

- 6.2.1 Double-bag (two 6-mil polyethylene disposal bags) all asbestos-containing waste and contaminated debris; bags shall not be over-filled and shall be securely sealed to prevent accidental opening or leakage.
- 6.2.2 As the containers are moved from the work area, wet wipe the exterior of the containers to remove all contamination from them before they are moved into the dumpster. All waste must be bagged prior to removal from roof work area. An appropriate mechanical device or other acceptable method shall be used for safe and intact transfer of the asbestos-containing waste material from the roof to the ground. *Alternate methods, such as sealed chutes require written pre-approval prior to project start.*
- 6.2.3 Exercise care before and during transport to insure that no unauthorized persons have access to the material.
- 6.2.4 *For roofing removed via mechanical means* - Uniform Hazardous Waste Manifests are required for disposal. The Judicial Council of California's Real Estate and Facilities Management's Environmental Compliance and Sustainability Unit (ECU) is the point of contact for hazardous waste disposal, including EPA ID numbers and the required manifest. In order to properly dispose of any asbestos containing waste, contact the ECU (following the steps outlined in the JCC's Asbestos Work Permit and Management Process program).
- 6.2.5 *For roofing removed via manual methods* - The Trade Contractor may transport all non-friable asbestos waste on a non-hazardous asbestos waste manifest. These manifests shall be provided by the Trade Contractor, reviewed by the consultant and signed by the Owner or Owner's designee.

- 6.2.5 The Trade Contractor shall notify and coordinate timing with the Owner and Asbestos Consultant prior to removing each waste vehicle from the job-site. The Asbestos Consultant will verify the general conditions and quantity of the load and review the manifest. Owner's representative will sign the manifest.
- 6.2.6 Trade Contractor shall dispose of contaminated waste at a landfill that is licensed to accept asbestos waste.
- 6.2.7 Transport friable asbestos waste using a transporter licensed as a hazardous waste hauler by the State of California.
- 6.2.8 Vehicles used to transport asbestos-containing waste shall be marked with placards as appropriate.
- 6.2.9 At disposal site, carefully unload sealed plastic bags or containers from the truck.
- 6.2.10 At completion of hauling and disposal of each load, the Trade Contractor shall submit copies of the manifest (or trip ticket/bill of lading), with signatures of the disposal or recycling facility, to the Owner.

## **7.0 SAFETY**

### **7.1 General**

The Trade Contractor shall be solely responsible for the safety, and efficiency, and adequacy of his plant, appliances, and methods, and for any damages that may result from their improper construction, maintenance, or operations. He shall erect and properly maintain at all times, as required by the condition and progress of the work, proper safeguards for the protection of the workmen and the public, and shall post warning signs around the site.

- 7.1.1 The Trade Contractor shall designate a responsible member of his organization on the work site, whose duty shall be the detection, recognition, and prevention of accidents and potential accidents. In the absence of notice to the contrary, filed in writing to the Consultant, this person shall be the licensed asbestos supervisor of the Trade Contractor.
- 7.1.2 The Trade Contractor shall provide fall protection for employees per applicable regulations.

### **7.2 Workers and Crews**

- 7.2.1 The Trade Contractor shall at all times enforce strict discipline and good order among his employees and shall not employ on the work crew any person not skilled in the work assigned, nor anyone who has not received notice and instructions on the dangers of asbestos and hazardous materials exposure and the reduction of the dangers associated with their removal. They shall also receive training in the proper use of respirators, safety procedures, equipment, clothing, and work procedures.
- 7.2.2 The Trade Contractor shall remove any employee from the project not adhering to any standard, regulation, code, or requirement set forth herein.
- 7.2.3 The Trade Contractor shall be responsible for setting the size of his work crews. During removal operations, a minimum of two (2) workers shall be in the work area at any time. Under no circumstances should workers be allowed to work alone inside the containment.

### **7.3 Electrical**

- 7.3.1 Due to the extreme conditions present during abatement activities, the Trade Contractor is responsible for assuring work areas are safe from electrical hazards. An adequate Ground Fault Interrupter system shall be used as required in the National Electrical Code. Lines from power sources will be have a Ground Fault Interrupter system installed so as to reduce the length of unprotected run to a minimum.

- 7.3.2 The Trade Contractor shall be responsible for damages resulting from the disruption of building power as a result of the Work.

#### **7.4 Fire Protection**

**The Trade Contractor shall comply with the following minimum requirements or the governing codes, whichever is more stringent.**

- 7.4.1 Fire extinguishers are required in the work areas at a rate of one per 3,000 sq. ft or within 75 ft of anywhere in the work area.
- 7.4.2 The minimum number of fire extinguishers will be one in the contained work area and one in the clean area.
- 7.4.3 Existing active systems will be protected in place and protected in a manner to provide maximum active time (e.g., uncover active detectors during non-work hours)

## ATTACHMENT 1

### CERTIFICATION OF VISUAL INSPECTIONS

The following "Certificate of Pre-Encapsulation Visual Inspection" shall be completed by the Contractor and the Environmental Consultant's representative following completion of removal work, cleanup and visual inspection of the work area, and prior to application of post-removal encapsulant.

## **CERTIFICATE OF PRE-ENCAPSULATION VISUAL INSPECTION**

PROJECT: \_\_\_\_\_

WORK AREA INSPECTED: \_\_\_\_\_

### **CONTRACTOR'S CERTIFICATION**

The Contractor hereby certifies that he has visually inspected the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris or residue.

by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_

(Print Name) \_\_\_\_\_

(Print Title) \_\_\_\_\_

### **ENVIRONMENTAL CONSULTANT CERTIFICATION**

The Environmental Consultant hereby certifies that he has visually inspected the Work Area following the contractor's inspection and that to the best of his knowledge and belief, the Contractor's Certification above is a true and honest one.

by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_

(Print Name) \_\_\_\_\_

(Print Title) \_\_\_\_\_

## ATTACHMENT 2

### CERTIFICATION OF FINAL VISUAL INSPECTIONS

The following "Certificate of Final Visual Inspection" shall be completed by the Contractor and the Environmental Consultant's representative following completion of removal work, cleanup and final visual inspection of the work area, and prior to collection of final clearance air samples.

## CERTIFICATE OF FINAL VISUAL INSPECTION

PROJECT: \_\_\_\_\_

WORK AREA INSPECTED: \_\_\_\_\_

### CONTRACTOR'S CERTIFICATION

The Contractor hereby certifies that he has performed a final visual inspection of the Work Area (all surfaces including pipes, beams, ledges, walls, ceiling and floor, Decontamination Unit, sheet plastic, etc.) and has found no dust, debris or residue.

by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_

(Print Name) \_\_\_\_\_

(Print Title) \_\_\_\_\_

### ENVIRONMENTAL CONSULTANT CERTIFICATION

The Environmental Consultant hereby certifies that he has visually inspected the Work Area following the contractor's inspection and that to the best of his knowledge and belief, the Contractor's Certification above is a true and honest one.

by: (Signature) \_\_\_\_\_ Date \_\_\_\_\_

(Print Name) \_\_\_\_\_

(Print Title) \_\_\_\_\_

# **APPENDIX A**

## **PRE-RENOVATION SURVEY REPORT**

**December 12, 2016**

## **Pre-Renovation Asbestos and Lead Survey Report Roof Replacement Project (Revision 1)**

**Metropolitan Courthouse (19-T1)  
1945 South Hill Street  
Los Angeles, California  
RMAR 16-017-01**

Prepared for:

**Judicial Council of California  
Under contract to:  
Barragan Corp International  
41707 Winchester Rd  
Suite 304  
Temecula, CA 92590**

Prepared By:

**Mark Smith  
Forensic Analytical Consulting Services  
2959 Pacific Commerce Drive  
Rancho Dominguez, California 90221  
Office Phone # 310-668-5600  
[msmith@forensicanalytical.com](mailto:msmith@forensicanalytical.com)**

FACS Project #PJ30846 – Revision 1

# Contents

<b>Introduction .....</b>	<b>1</b>
<b>Methodology.....</b>	<b>1</b>
<b>Findings .....</b>	<b>1</b>
<b>Conclusions and Discussion .....</b>	<b>2</b>
<b>Recommendations .....</b>	<b>3</b>
<b>Limitations.....</b>	<b>3</b>

**Appendix A: Asbestos Results Table**

**Appendix B: Lead Results Table**

**Appendix C: Laboratory Reports and Chain of Custody Documents**

**Appendix D: Personnel and Laboratory Certifications**

## Introduction

Forensic Analytical Consulting Services, Inc. (FACS) was retained by Judicial Council of California through contract with Barragan Corp International (BCI) to perform a pre-renovation asbestos and lead survey of the Metropolitan Courthouse (19-T1) located at 1945 S. Hill Street in Los Angeles, California. This survey was limited to suspect asbestos-containing building materials and lead-containing coatings or materials that may be disturbed during the planned Roof Replacement Project. A list of all suspect materials identified and sampled are included in Appendix A and B of this report. The visual inspection, bulk sample collection, and survey documentation was performed by Mark Smith and Barry Smith. Mark Smith (Certified Asbestos Consultant #00-2736) and Barry Smith (Certified Asbestos Consultant #13-5029) are AHERA-trained Building Inspectors. In addition, Mark Smith (CDPH#7160) is a Lead Inspector/Risk Assessor certified by the California Department of Health Services (CDPH). Barry Smith (CDPH# 17048) is a CDPH-certified Lead Sampling Technician. The survey was conducted on August 26, 2016. *This report version has been revised to address added work scope (replacement of roof drains).*

## Methodology

Our investigation consisted of the following:

- Visual inspection
- Documentation of relevant conditions
- Collection of samples of suspect asbestos-containing materials and lead-containing coatings and materials
- Submitting samples to a laboratory accredited by NVLAP for asbestos analysis and accredited by CDPH for lead analysis
- Presenting analytical results, conclusions, and recommendations in a report

The survey was restricted to the materials or components that would be disturbed by the re-roofing project. All other areas of the building and other suspected asbestos-containing materials or lead-containing coatings or materials were not inspected or tested during this survey.

The types, numbers, and locations of samples were determined based on provided information, visual observations, regulatory requirements, and other project management considerations.

Samples were collected from representative components and paints/coating, not every individual component. Lead results are attributed to like components and coatings in the same general area of the representative component that was sampled.

## Findings

### Asbestos

Asbestos survey results are summarized in the attached table (Appendix A).

#### **Asbestos was identified in the following materials:**

- Roofing mastics (through all roof levels at patches, seams, penetrations, flashings, etc.)
- Pitch pockets
- Walk pads (in underlying mastic/adhesives)
- Fireproofing (applied to underside roof deck )

The detailed laboratory report and completed Sampling Data Form (Chain of Custody) are contained in Appendix C.

### **Lead**

Testing of various paint systems at the site affected by the planned renovation resulted in lead detection in four of the five paints tested. Untested paint systems are presumed to be lead-based paint (pre-1978) or lead-containing paint (for post 1978 constructed buildings).

Sheet lead flashing was visually identified at various pipe penetrations through the roof.

For a detailed description of the materials sampled and analyzed see the lead sample results table in Appendix B.

## **Conclusions and Discussion**

### **Asbestos**

Materials for which sample analysis by PLM results in greater than one percent asbestos (for any one sample collected from a homogeneous material) are classified as asbestos-containing material (ACM) under regulations promulgated by (but not limited to) the following agencies: federal EPA, South Coast Air Quality Management District (SCAQMD), California EPA (Cal-EPA), federal OSHA and Cal/OSHA. These materials are also classified as asbestos-containing construction material (ACCM) under Cal/OSHA and California Contractor Licensing Board (CSLB) regulations.

The agencies use the following definitions:

Federal EPA: materials containing greater than one percent asbestos are ACM

SCAQMD: materials containing greater than one percent asbestos are ACM

Cal/OSHA: materials containing greater than 0.1% asbestos by weight are ACCM

CSLB: materials containing greater than 0.1% asbestos by weight are ACCM

Materials shown in the table as containing asbestos are regulated materials under the EPA and SCAQMD regulations, Cal/OSHA regulations, and numerous additional regulations.

SCAQMD Rule 1403 requires (with limited exceptions) that both friable and non-friable ACM in buildings be removed prior to maintenance, repairs, renovation or demolition that would disturb the material. Work involving the disturbance of asbestos-containing material also requires ten working days prior notification to SCAQMD (exemption for less than 100 square feet) and notification to Cal/OSHA.

### **Lead**

Lead results given in this report are compared to current Cal/OSHA (8 CCR 1532.1) regulatory levels related to lead content in materials, and to the CDPH lead-based paint level of 0.5% lead or greater. Cal/OSHA recognizes that paint containing lead equal to or greater than 0.06% by dry weight, or paint involved in certain higher-risk activities with even lower concentrations of detectable lead, can pose a health hazard to employees engaged in lead-related construction work.

The current Cal/OSHA Lead in Construction Safety Standard (8 CCR 1532.1) regulation applies to all construction work where an employee may be occupationally exposed to lead. Therefore, work performed on surfaces containing **any amount of lead (even below 0.06%)** must comply with the standard, including an exposure assessment (personal air monitoring) to determine if the airborne lead exposure levels are within acceptable limits.

Because lead was detected in the affected paint and in lead flashings, the Cal/OSHA Lead in Construction Standard (8 CCR 1532.1) should be followed. The Standard requires exposure assessment when performing a “trigger” task defined in the Standard (e.g., manual demolition, welding, torch burning, etc.) or for any task that will disturb paint when the paint contains 0.06% lead or greater, or for lead components like flashing. For “trigger” tasks there are requirements for respiratory protection, training, blood testing, etc. during the initial monitoring (interim protection) as if the exposure was above the Permissible Exposure Limit (PEL), until air testing results are received that demonstrate otherwise. Most of the additional provisions of the Standard depend upon the results of the exposure assessment. Additional controls (lead-safe work practices) are required by CDPH for lead-based paints.

## Recommendations

1. All asbestos-containing materials affected by the renovation must be removed by a licensed asbestos abatement contractor prior to the work planned for the project. These materials must not be disturbed, except by a licensed asbestos abatement contractor who complies with all applicable regulations.
2. Loose and flaking paints should be rendered intact/stabilized prior to construction, using appropriate work practices. Waste created during any lead work must be appropriately segregated and the waste streams tested and disposed of in accordance with regulatory requirements.
3. Removal of any impacted lead roof flashings. Lead flashings shall be recycled (after removing any adhered asbestos materials, such as roofing mastic).
4. Lead-safe work practices must be used when disturbing any identified or presumed lead-based paint or components.
5. If any additional suspect asbestos-containing material is discovered during planned work, the material must be tested for asbestos content prior to any disturbance. Untested paints are presumed to contain lead, or for older buildings (pre-1978 construction) untested paints are presumed to be lead-based paint.
6. Under the California Health and Safety Code Section 25915 et. seq., notification about asbestos containing construction materials must be provided initially by the building owner within 15 days of receipt of the information to co-owners, tenants, employees, contract workers, or others who may encounter the material, and the notification must be provided annually thereafter. Notification of new asbestos information (such as any ACM or ACCM identified in this report) must be provided within 15 days of the end of each 90-day period. Under Cal/OSHA regulation, this information must also be provided to contractors, sub-contractors or others whose work may disturb ACM or ACCM, prior to submission of bids and performance of work.
7. For further assistance with regulatory requirements, FACS should be consulted, and the applicable regulations should be reviewed.

## Limitations

This investigation is limited to the conditions and practices observed and information made available to FACS. The methods, conclusions and recommendations provided are based on FACS’ judgment, expertise and the standard of practice for professional service. They are subject to the limitations and variability inherent in the methodology employed. As with all environmental investigations, this investigation is limited to the defined scope and does not purport to set forth all hazards, nor indicate that other hazards do not exist.

Please do not hesitate to contact our offices at 310-668-5600 with any questions or concerns. Thank you for the opportunity to assist the Judicial Council of California and Barragan Corp International in promoting a more healthful environment.

FORENSIC ANALYTICAL

A handwritten signature in black ink, appearing to read 'M. Smith', with a long horizontal stroke extending to the right.

Mark Smith  
CAC No. 00-2736  
CDPH Lead Cert. No. 7160

FORENSIC ANALYTICAL

A handwritten signature in black ink, appearing to read 'S. Long', with a stylized, cursive script.

Stephen Long  
CAC No. 92-0580  
CDPH Lead Cert. No. 2202

## Appendix A

### Asbestos Results Table

**Pre-Renovation Asbestos Survey Summary**  
**Metropolitan Courthouse – Roof Replacement Project**  
**Survey Date: August 26, 2016 – Lab report number: B227101**

Sample Numbers	Material Description	Location(s) of Material	Asbestos Content (percent)	Asbestos Regulatory Classification	Approximate Quantity*
01A-D 04A-C	Rolled roof field	Throughout roof levels	ND	NA	-
<b>02A-C 05A-C 06A-C</b>	<b>Roofing mastic</b>	<b>Throughout at patches, seams, penetrations, flashings, etc.</b>	<b>5-7%</b>	<b>Class 1 Nonfriable</b>	<b>1,300 SF</b>
<b>03A-C</b>	<b>Walk pads and underlying mastic/adhesive</b>	<b>Throughout main roof at walkways</b>	<b>5% (mastic) ND (pads)</b>	<b>Class 1 Nonfriable</b>	<b>1,350 SF</b>
<b>07A-C</b>	<b>Pitch pockets</b>	<b>Cooling tower partition wall at column bases</b>	<b>5%</b>	<b>Class 1 Nonfriable</b>	<b>5 SF</b>
08A-C	Concrete sand coating	North parapet wall	ND	NA	-
09A-C	Stucco	Stair tower walls	ND	NA	-
<b>SAF 1-5</b>	<b>Fireproofing (and assumed fireproofing debris on top of ceiling tiles)</b>	<b>Ceiling deck beneath the roof on the interior of the building (will be impacted by drain replacement)</b>	<b>15%</b>	<b>Friable</b>	<b>Not Quantified</b>

ND = Not detected  
feet

Trace = less than one percent

TEM = Transmission Electron Microscopy

NA = Not applicable

SF = square feet

LF = linear

FRIABLE ASBESTOS-CONTAINING MATERIAL is material containing more than one percent (1%) asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

CLASS I NONFRIABLE ASBESTOS-CONTAINING MATERIAL is material containing more than one percent (1%) asbestos, and that, when dry, can be broken, crumbled, pulverized, or reduced to powder in the course of demolition or renovation activities. Actions which may cause material to be broken, crumbled, pulverized, or reduced to powder include physical wear and disturbance by mechanical force, such as, but not limited to, sanding, sandblasting, cutting or abrading, improper handling or removal or leaching of matrix binders. Class I nonfriable asbestos-containing material includes, but is not limited to, fractured or crushed asbestos cement products, transite materials, mastic, roofing felts, roofing tiles, cement water pipes and resilient floor covering.

CLASS II NONFRIABLE ASBESTOS-CONTAINING MATERIAL is all other material containing more than one percent (1%) asbestos, that is neither friable nor Class I nonfriable.

**NOTE:** This summary table must not be used alone. Important explanations and limitations are contained in the accompanying survey report text. Percent asbestos content is based upon visual area estimation (point count or TEM analysis was not performed), unless noted otherwise in the table. See laboratory Bulk Asbestos Analysis report(s) for percent asbestos content of each layer.

**\*All quantities are approximate. Contractors submitting bids for work must field verify quantities.**

## Appendix B

### Lead Results Table

Lead Survey Summary (Lab Report # M176058) Metropolitan Court Survey Date: August 26, 2016				
Sample Number	Component	Substrate	Color	Result (wt%)
PC-01	Wall	Concrete	Beige	0.01
PC-02	Wall partition	Metal	Beige	0.07
PC-03	Flashing	Metal	Brown	<0.06
PC-04	Plumbing pipe	Metal	Yellow	0.15
PC-05	Mechanical duct/fan flashing	Metal	Pink	0.20

**“<” means “less than”**

California Department of Public Health (CDPH) defines lead-based paint as paint containing greater than 0.5% lead.

The Cal/OSHA Lead in Construction standard contains requirements for paint containing greater than **0.06%** lead, although for certain tasks (i.e., manual demolition, scraping, welding) exposure assessment is required where paint is present that contains any amount of lead.

## Appendix C

### Laboratory Reports and Chain of Custody Documents



# Bulk Asbestos Analysis

(EPA Method 600/R-93-116, Visual Area Estimation)

Forensic Analytical Consulting Svcs  
Mark Smith  
2959 Pacific Commerce Drive  
Rancho Dominguez, CA 90221

**Client ID:** LA05  
**Report Number:** B227101  
**Date Received:** 08/26/16  
**Date Analyzed:** 09/02/16  
**Date Printed:** 09/02/16  
**First Reported:** 09/02/16

**Job ID/Site:** PJ30846; Metropolitan Courthouse: Pre-renovation Asbestos/Lead Roof Survey,  
1945 S. Hill Street, Los Angeles CA 90007

**Date(s) Collected:** 08/26/2016

**FALI Job ID:** LA05  
**Total Samples Submitted:** 28  
**Total Samples Analyzed:** 28

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>01A</b>	51008838						
Layer: Grey Roof Shingle			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)		Synthetic (25 %)					
<b>01B</b>	51008839						
Layer: Grey Roof Shingle			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)		Synthetic (25 %)					
<b>01C</b>	51008840						
Layer: Grey Roof Shingle			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)		Synthetic (25 %)					
<b>02A</b>	51008841						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>7 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (6%)</b>					
Cellulose (Trace)							
<b>02B</b>	51008842						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>7 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (6%)</b>					
Cellulose (Trace)							
<b>02C</b>	51008843						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>7 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (6%)</b>					
Cellulose (Trace)							
<b>03A</b>	51008844						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>5 %</b>				
Layer: Multi-Layer Black Tars			<b>ND</b>				
Layer: Multi-Layer Black Felts			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (Trace)</b>					
Cellulose (Trace)		Fibrous Glass (20 %)					

**Client Name:** Forensic Analytical Consulting Svcs**Report Number:** B227101**Date Printed:** 09/02/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>03B</b>	51008845						
Layer: Stones			ND				
Layer: Multi-Layer Black Tars			ND				
Layer: Multi-Layer Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (20 %)						
<b>03C</b>	51008846						
Layer: Stones			ND				
Layer: Multi-Layer Black Tars			ND				
Layer: Multi-Layer Black Felts			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Fibrous Glass (20 %)						
<b>01D</b>	51008847						
Layer: Stones			ND				
Layer: Black Tar			ND				
Layer: Black Felt			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Synthetic (25 %)						
<b>04A</b>	51008848						
Layer: Grey Roof Shingle			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Synthetic (30 %)						
<b>04B</b>	51008849						
Layer: Grey Roof Shingle			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Synthetic (30 %)						
<b>04C</b>	51008850						
Layer: Grey Roof Shingle			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)	Synthetic (30 %)						
<b>05A</b>	51008851						
Layer: Off-White Mastic			ND				
Layer: Paint			ND				
Layer: Black Semi-Fibrous Tar			ND				
Layer: Black Semi-Fibrous Tar (bottom)	Chrysotile		5 %				
Total Composite Values of Fibrous Components:		Asbestos (3%)					
Cellulose (2 %)							
<b>05B</b>	51008852						
Layer: Paint			ND				
Layer: Black Semi-Fibrous Tar	Chrysotile		5 %				
Layer: Grey Non-Fibrous Material			ND				
Total Composite Values of Fibrous Components:		Asbestos (4%)					
Cellulose (2 %)							

**Client Name:** Forensic Analytical Consulting Svcs

**Report Number:** B227101

**Date Printed:** 09/02/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>05C</b>	51008853						
Layer: Off-White Mastic			<b>ND</b>				
Layer: Paint			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>5 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (5%)</b>					
Cellulose (2 %)							
<b>06A</b>	51008854						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar w/ Silver Paint		Chrysotile	<b>3 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (3%)</b>					
Cellulose (5 %)							
<b>06B</b>	51008855						
Layer: Paint			<b>ND</b>				
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (7 %)							
<b>06C</b>	51008856						
Layer: Paint			<b>ND</b>				
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (7 %)							
<b>07A</b>	51008857						
Layer: Stones			<b>ND</b>				
Layer: Black Semi-Fibrous Tar			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>5 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (2%)</b>					
Cellulose (5 %)							
<b>07B</b>	51008858						
Layer: Black Semi-Fibrous Tar			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>5 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (3%)</b>					
Cellulose (5 %)							
<b>07C</b>	51008859						
Layer: Black Semi-Fibrous Tar			<b>ND</b>				
Layer: Black Semi-Fibrous Tar		Chrysotile	<b>5 %</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (3%)</b>					
Cellulose (5 %)							
<b>08A</b>	51008860						
Layer: Grey Cementitious Material			<b>ND</b>				
Layer: Paint			<b>ND</b>				
Total Composite Values of Fibrous Components:		<b>Asbestos (ND)</b>					
Cellulose (Trace)							

**Client Name:** Forensic Analytical Consulting Svcs

**Report Number:** B227101

**Date Printed:** 09/02/16

Sample ID	Lab Number	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer	Asbestos Type	Percent in Layer
<b>08B</b>	51008861						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
<b>08C</b>	51008862						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
<b>09A</b>	51008863						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
<b>09B</b>	51008864						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							
<b>09C</b>	51008865						
Layer: Grey Cementitious Material			ND				
Layer: Paint			ND				
Total Composite Values of Fibrous Components:		Asbestos (ND)					
Cellulose (Trace)							



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.

# SAMPLING DATA FORM

<b>CLIENT:</b> LA05 Forensic Analytical Consulting Services 2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221		<b>Phone/Fax:</b>	<b>Sample Date:</b> 8-28-16
<b>Turnaround Time:</b> 24 hr 48 hr <input checked="" type="checkbox"/> Extended (5 days) <input type="checkbox"/> Rush		<b>Analysis:</b> <input checked="" type="checkbox"/> PLM Standard <input type="checkbox"/> PLM Point Count	
<b>Special Instructions:</b>		<b>PM:</b> M. Smith	
<b>Site:</b> Metro Port Container		<b>FACS Client No.:</b>	
<b>Sampled by:</b> MS/BS		<b>FACS Job No.:</b> P30546	

Material Description	Material Location(s)	Approx. Quant.	Friable?	Cond.	Sample Number	Sample Location
ROOF FIBERS	T-OUT ROOF (COVER CONC)	2500g	N	G	01A	1250T ADJ. DEEPER DOWNS TO MECH
					01B	SCOUT NORTH CORNERING TOWERS
					01C	NW CORNER
ROOF FIBER SYSTEM	T-OUT ROOF (SEAMS OF ROOF)	1000			02A	SAMPLE AS 01A
					02B	SAMPLE AS 01B
					02C	SAMPLE AS 01C
WALL PAPER	T-OUT WALL PAPER	1350			03A	01A
					03B	01B
					03C	01C
POWER ROOF FIBER	T-OUT	1500			01D	TOP MECH RUN ROOF - CTR

DW = Gypsum JC = Joint Compound VFT = Vinyl Floor Tile BB = Baseboard MAS = Mastic ADH = Adhesive FP = Fireproofing  
 VSF = Vinyl Sheet Flooring ACT/P = Acoustic Ceiling Tile/Panel ACS = Sprayed-on Acoustical Ceiling Material WT = Wall Texture FD = Fire  
 Door TSI = Thermal System Insulation Exp. Jt. = Expansion Joint PEN = Penetration

<b>Sampled &amp; Relinquished by:</b> Date & Time: 8/28/16 @ 1430 Received by: [Signature] D/O Date & Time: 8/26/16 2:30pm	<b>Relinquished by:</b> Date & Time: Received by: Date & Time:
---	---

<b>CLIENT:</b> LA05 Forensic Analytical Consulting Services 2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221			<b>Phone/Fax:</b>		<b>Sample Date:</b> 8-26-16	
<b>Turnaround Time:</b> 24 hr <input checked="" type="checkbox"/> 48 hr <input checked="" type="checkbox"/> Extended ( 5 days) <input type="checkbox"/> Rush						
<b>Analysis:</b> <input checked="" type="checkbox"/> PLM Standard <input type="checkbox"/> PLM Point Count						
<b>Special Instructions:</b>						
<b>Site:</b> <u>Marathon</u>			<b>PM:</b> <u>M. Smith</u>			
<b>Sampled by:</b> <u>MS/BSS</u>			<b>FACS Client No.:</b>		<b>FACS Job No.:</b> <u>PJ30846</u>	

Material Description	Material Location(s)	Approx. Quant.	Friable?	Cond.	Sample Number	Sample Location
POURED CONCRETE FLOOR	WALK PATH AREA	1500	N	G	04A	EAST ADJ. ENTRY TO MICH. RM.
					04B	Garage 501B
					04C	↓ 01C
POURING MASTIC	PARADES & STAIRS	150			05A	EAST ENTRANCED PARADE ADJ. DOOR TO MICH. RM.
					05B	S ADJ. LADDER TO TOP LEVEL
					05C	NW CORNER @ STAIR 13
					05D	<del>STAIR ONE TWO</del>
					05E	<del>STAIR ONE TWO</del>
					06A	EAST FIRE RISER ADJ. DOOR TO MICH. RM.
					06B	STAIR AS 01B
					06C	STAIR 01C - CARPENTER BUILD. REF.

DW = Gypsum JC = Joint Compound VFT = Vinyl Floor Tile BB = Baseboard MAS = Mastic ADH = Adhesive FP = Fireproofing Square Feet: SF; Linear Feet: LF  
 VSF = Vinyl Sheet Flooring ACT/P = Acoustic Ceiling Tile/Panel ACS = Sprayed-on Acoustical Ceiling Material WT = Wall Texture FD = Fire Friable: Yes / No  
 Door TSI = Thermal System Insulation Exp. Jt. = Expansion Joint PEN = Penetration Condition: 1 Good/ 2 Damaged/ 3 Significant Damage

<b>Sampled &amp; Relinquished by:</b> Date & Time: <u>8/26/16 1430</u> Received by: <u>Carroll D/10</u> Date & Time: <u>8/26/16 2:30pm</u>	<b>Relinquished by:</b> Date & Time: Received by: Date & Time:
---	---

# SAMPLING DATA FORM

Page 5 of 3

<b>CLIENT:</b> LA05 Forensic Analytical Consulting Services 2959 Pacific Commerce Drive, Rancho Dominguez, CA 90221		<b>Phone/Fax:</b>		<b>Sample Date:</b> 8-26-16	
<b>Turnaround Time:</b> 24 hr 48 hr <input checked="" type="checkbox"/> Extended ( 5 days) <input type="checkbox"/> Rush		<b>Analysis:</b> <input checked="" type="checkbox"/> PLM Standard <input type="checkbox"/> PLM Point Count		<b>Special Instructions:</b>	
<b>Site:</b> MESA PAVILION		<b>PM:</b> M. SMITH		<b>FACS Job No.:</b> 853846	
<b>Sampled by:</b> MS/BS		<b>FACS Client No.:</b>		<b>FACS Job No.:</b> 853846	

Material Description	Material Location(s)	Approx. Quant.	Friable?	Cond.	Sample Number	Sample Location
PITTED POCKETS	Baseboards - TOWER PLATE 17TH FLOOR	5A	N	G	07A	E
	Baseboards	(15 ft)	I	I	07B	S COR
			I	I	07C	W
CONCRETE SANDS COR	N. PARAPET WALL		Y	D	08A	E
			I	I	08B	CR
			I	I	08C	W
STUCCO	STAIR TOWERS		N	D	09A	NW STAIRS, N
			I	I	09B	S
			I	I	09C	SW STAIRS, N

DW = Gypsum JC = Joint Compound VFT = Vinyl Floor Tile BB = Baseboard MAS = Mastic ADH = Adhesive FP = Fireproofing  
 VSF = Vinyl Sheet Flooring ACT/P = Acoustic Ceiling Tile/Panel ACS = Sprayed-on Acoustical Ceiling Material WT = Wall Texture FD = Fire  
 Door TSI = Thermal System Insulation Exp. Jt. = Expansion Joint PEN = Penetration

<b>Sampled &amp; Relinquished by:</b> [Signature]	<b>Relinquished by:</b> [Signature]
<b>Date &amp; Time:</b> 8/26/16 @ 1430	<b>Date &amp; Time:</b>
<b>Received by:</b> J. Cantrell	<b>Received by:</b>
<b>Date &amp; Time:</b> 8/26/16 @ 2130p	<b>Date &amp; Time:</b>



**CITADEL**  
ENVIRONMENTAL  
SERVICES, INC.

**TABLE 1.0**  
**BULK SAMPLE RESULTS**  
**Project Number: 7062.1028.0**  
**Metropolitan Traffic Court**  
**1945 South Hill Street**  
**Updated 9/18/2015**

Consultant Sample No	Material Description	Area/Location	Asbestos Content - Percent:			Non-ACM - Percent:			Not Analyzed	Comments
001	SAF1 Light Gray	Rm 801A NW	Floor 8th	Chrysotile Crocidolite	15.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 85.0%	<input type="checkbox"/>
002	SAF1 Light Gray	Rm 801A NW	Floor 8th	Chrysotile Crocidolite	15.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 85.0%	<input type="checkbox"/>
003	SAF1 Light Gray	Rm 801A NW	Floor 8th	Chrysotile Crocidolite	15.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 85.0%	<input type="checkbox"/>
004	SAF1 Light Gray	Rm 801A N	Floor 8th	Chrysotile Crocidolite	15.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 85.0%	<input type="checkbox"/>
005	SAF1 Light Gray	Rm 801A NE	Floor 8th	Chrysotile Crocidolite	15.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 85.0%	<input type="checkbox"/>
006	ICT White	Rm 801A NW	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
007	ICT White	Rm 801A N	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
008	ICT White	Rm 801A NE	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
009	WSR White	Rm 801A W	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
010	WSR White	Rm 801A SW	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
011	WSR White	Rm 801A NE	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
012	WJC White	Rm 801A W	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>
013	WJC White	Rm 801A SW	Floor 8th	Chrysotile Crocidolite	0.0% 0.0%	Amosite Tremolite/Actinolite	0.0%	Anthophyllite Other	0.0% 100.0%	<input type="checkbox"/>

**Run Date: 9/18/2015**



## LA Testing

520 Mission Street, South Pasadena, CA 91030

Phone/Fax: (323) 254-9960 / (323) 254-9982

<http://www.LATesting.com>

[pasadenalab@lateesting.com](mailto:pasadenalab@lateesting.com)

LA Testing Order: 321519257

CustomerID: 32CITA50

CustomerPO:

ProjectID:

Attn: **Jeff Klein**  
**Citadel Environmental Services, Inc.**  
**1725 Victory Boulevard**  
**Glendale, CA 91201**

Phone: (818) 246-2707  
Fax:  
Received: 09/04/15 9:45 AM  
Analysis Date: 9/9/2015  
Collected:

Project: **7062.1028.0/ METROPOLITAN TRAFFICE COURT**

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

Sample	Description	Appearance	Non-Asbestos		Asbestos	
			% Fibrous	% Non-Fibrous	% Type	
SAF 1 321519257-0001	801 A 8TH NW	Gray Fibrous Heterogeneous		20% Mica 65% Non-fibrous (other)	15%	Chrysotile
SAF 2 321519257-0002	801 A 8TH NW	Gray Fibrous Heterogeneous		20% Mica 65% Non-fibrous (other)	15%	Chrysotile
SAF 3 321519257-0003	801 A 8TH NW	Gray Fibrous Heterogeneous		20% Mica 65% Non-fibrous (other)	15%	Chrysotile
SAF 4 321519257-0004	801 A 8TH N	Beige/Gold Fibrous Heterogeneous		20% Mica 65% Non-fibrous (other)	15%	Chrysotile
SAF 5 321519257-0005	801 A 8TH NE	Beige/Gold Fibrous Heterogeneous		20% Mica 65% Non-fibrous (other)	15%	Chrysotile
1CT 6 321519257-0006	801 A 8TH NW	Gray/White Fibrous Heterogeneous	85% Min. Wool	15% Non-fibrous (other)		None Detected
1CT 7 321519257-0007	801 A 8TH N	Gray/White Fibrous Heterogeneous	85% Min. Wool	15% Non-fibrous (other)		None Detected
1CT 8 321519257-0008	801 A 8TH NE	Gray Fibrous Homogeneous	80% Min. Wool	20% Non-fibrous (other)		None Detected

Analyst(s)

Julie Vong (13)

Rosa Mendoza (23)

Jerry Drapala Ph.D, Laboratory Manager  
or other approved signatory

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

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

Initial report from 09/09/2015 15:24:27



## Metals Analysis of Paints

Forensic Analytical Consulting Svcs  
Mark Smith  
2959 Pacific Commerce Drive  
  
Rancho Dominguez, CA 90221

**Client ID:** LA05  
**Report Number:** M176058  
**Date Received:** 08/26/16  
**Date Analyzed:** 09/02/16  
**Date Printed:** 09/02/16  
**First Reported:** 09/02/16

**Job ID / Site:** PJ30846; Metropolitan Courthouse: Pre-renovation Asbestos/Lead Roof Survey,  
1945 S. Hill Street, Los Angeles CA 90007

**FALI Job ID:** LA05

**Date(s) Collected:** 08/26/16

**Total Samples Submitted:** 5

**Total Samples Analyzed:** 5

Sample Number	Lab Number	Analyte	Result	Result Units	Reporting Limit*	Method Reference
PC-1	LM129932	Pb	0.01	wt%	0.01	EPA 3050B/7420
PC-2	LM129933	Pb	0.17	wt%	0.06	EPA 3050B/7420
Comment:	Insufficient sample size for repeatable analysis.					
PC-3	LM129934	Pb	< 0.06	wt%	0.06	EPA 3050B/7420
Comment:	Insufficient sample size for repeatable analysis.					
PC-4	LM129935	Pb	0.15	wt%	0.006	EPA 3050B/7420
PC-5	LM129936	Pb	0.20	wt%	0.01	EPA 3050B/7420

\* The Reporting Limit represents the lowest amount of analyte that the laboratory can confidently detect in the sample, and is not a regulatory level. The Units for the Reporting Limit are the same as the Units for the Final Results.

Beatriz Hinojosa, Laboratory Supervisor, Rancho Dominguez Laboratory

Analytical results and reports are generated by Forensic Analytical 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 Forensic Analytical 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 Forensic Analytical. The client is solely responsible for the use and interpretation of test results and reports requested from Forensic Analytical. Forensic Analytical is not able to assess the degree of hazard resulting from materials analyzed. Forensic Analytical 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. Any modifications that have been made to referenced test methods are documented in Forensic Analytical's Standard Operating Procedures Manual. Sample results have not been blank corrected. Quality control and sample receipt condition were acceptable unless otherwise noted.



# PAINT CHIP SAMPLE REQUEST FORM

Client:	LA05 FACS Los Angeles Barragan Corp International - Los Angeles	Sampled by:	MS	PM:	Mark Smith	Date:	8-25-16
Contact:	Mark Smith Phone: (310) 668-5600	Special Instructions:	E-mail results to msmith@forensicanalytical.com and mrivas@forensicanalytical.com				
Site:	Metropolitan Courthouse: Pre-renovation Asbestos/Lead Roof Survey	Turnaround Time:	1-Day <input type="checkbox"/>	2-Day <input type="checkbox"/>	3-Day <input type="checkbox"/>	5-Day <input checked="" type="checkbox"/>	Other <input type="checkbox"/>
Client No.:	C16026	FACS Job #:	PJ30846	Flame AA (Pb) <input checked="" type="checkbox"/> Other: <input type="checkbox"/>			

Sample Number	Sample Location	Component	Color	Substrate	Condition
PC-1	ROOF - EAST - WARE AREA DECK TO NORTH	WARE	BEIGE	CONC.	F
PC-2		WARE PARTITION	BEIGE	METAL	F
PC-3		FLASHING	BROWN	METAL	F
PC-4	ROOF - WEST AREA DECK TO NORTH	PLUMBING PIPE	YELLOW	METAL	F
PC-5	ROOF - W SIDE NORTH AREA	MECHANICAL DUCT / FAN FLASHING	PINK	METAL	P

Shipped via:	<input type="checkbox"/> Fed Ex	<input type="checkbox"/> Airborne	<input type="checkbox"/> UPS	<input type="checkbox"/> US Mail	<input type="checkbox"/> Courier	<input checked="" type="checkbox"/> Drop Off	<input type="checkbox"/> Other:	Substrate: wood metal concrete plaster drywall brick
Relinquished by:	8/26/16 (1430)			Received by: Mark Smith		Date & Time: 8/26/16 2:30 PM		Condition Acceptable <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Relinquished by:				Received by:		Date & Time:		Condition Acceptable <input type="checkbox"/> Yes <input type="checkbox"/> No

## Appendix D

### Personnel and Laboratory Certifications

## 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](mailto:actu@dir.ca.gov)

010254690C

344

September 27, 2016

Russell J Ragsdale, II

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,

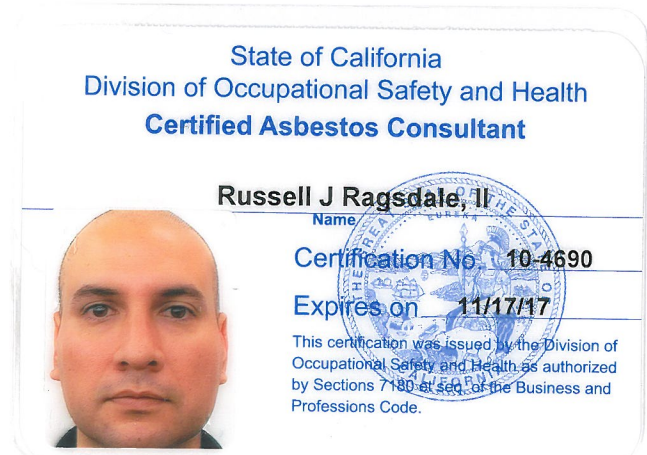
Jeff Ferrell

Senior Safety Engineer

Attachment: Certification Card

cc: File

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



Mr. Russell J. Ragsdale II  
5046 Leonis Street  
Commerce, California 90040



## 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](mailto:actu@dir.ca.gov)

712052313T

158

February 03, 2016

Larry D Richardson

[REDACTED]  
[REDACTED], [REDACTED]  
[REDACTED]

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

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

Larry D Richardson

Name

Certification No. 97-2313Expires on 02/06/17

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





AIHA

Laboratory Accreditation  
Programs, LLC

## AIHA Laboratory Accreditation Programs, LLC

*acknowledges that*

### Forensic Analytical Laboratories, Inc.

2959 Pacific Commerce Dr., Rancho Dominguez, CA 90221

Laboratory ID: 101629

along with all premises from which key activities are performed, as listed above, has fulfilled the requirements of the AIHA Laboratory Accreditation Programs (AIHA-LAP), LLC accreditation to the ISO/IEC 17025:2005 international standard, *General Requirements for the Competence of Testing and Calibration Laboratories* in the following:

#### LABORATORY ACCREDITATION PROGRAMS

- |                               |   |
|-------------------------------|---|
| ✓ INDUSTRIAL HYGIENE          | Accreditation Expires: September 01, 2018 |
| ✓ ENVIRONMENTAL LEAD          | Accreditation Expires: September 01, 2018 |
| ✓ ENVIRONMENTAL MICROBIOLOGY  | Accreditation Expires: September 01, 2018 |
| <input type="checkbox"/> FOOD | Accreditation Expires:                    |
| ✓ UNIQUE SCOPES               | Accreditation Expires: September 01, 2018 |

Specific Field(s) of Testing (FoT)/Method(s) within each Accreditation Program for which the above named laboratory maintains accreditation is outlined on the attached **Scope of Accreditation**. Continued accreditation is contingent upon successful on-going compliance with ISO/IEC 17025:2005 and AIHA-LAP, LLC requirements. This certificate is not valid without the attached **Scope of Accreditation**. Please review the AIHA-LAP, LLC website ([www.aihaaccreditedlabs.org](http://www.aihaaccreditedlabs.org)) for the most current Scope.

*William Walsh*

William Walsh, CIH  
Chairperson, Analytical Accreditation Board

*Cheryl O. Morton*

Cheryl O. Morton  
Managing Director, AIHA Laboratory Accreditation Programs, LLC

Revision 15: 03/30/2016

Date Issued: 09/29/2016



## AIHA Laboratory Accreditation Programs, LLC

### SCOPE OF ACCREDITATION

#### **Forensic Analytical Laboratories, Inc.**

2959 Pacific Commerce Dr., Rancho Dominguez, CA 90221

Laboratory ID: **101629**

Issue Date: 09/29/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

#### **Industrial Hygiene Laboratory Accreditation Program (IHLAP)**

**Initial Accreditation Date: 12/01/1995**

<b>IHLAP Scope Category</b>	<b>Field of Testing (FoT)</b> (FoTs cover all relevant IH matrices)	<b>Technology sub-type/ Detector</b>	<b>Published Reference Method/Title of In-house Method</b>	<b>Method Description or Analyte</b> <i>(for internal methods only)</i>
<b>Asbestos/Fiber Microscopy Core</b>	Polarized Light Microscopy (PLM)		EPA/600/M4-82-020, 1982	
			EPA/600/R-93/116, 1993	
	Phase Contrast Microscopy (PCM)		NIOSH 7400	
<b>Miscellaneous Core</b>	Gravimetric		NIOSH 0500 (Modified)	
			NIOSH 0600 (Modified)	

A complete listing of currently accredited Industrial Hygiene laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>



## AIHA Laboratory Accreditation Programs, LLC

### SCOPE OF ACCREDITATION

#### Forensic Analytical Laboratories, Inc.

2959 Pacific Commerce Dr., Rancho Dominguez, CA 90221

Laboratory ID: **101629**

Issue Date: 09/29/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

The EPA recognizes the AIHA-LAP, LLC ELLAP program as meeting the requirements of the National Lead Laboratory Accreditation Program (NLLAP) established under Title X of the Residential Lead-Based Paint Hazard Reduction Act of 1992 and includes paint, soil and dust wipe analysis. Air analysis is not included as part of the NLLAP.

#### Environmental Lead Laboratory Accreditation Program (ELLAP)

**Initial Accreditation Date: 05/01/2014**

Field of Testing (FoT)	Technology sub-type/ Detector	Method	Method Description (for internal methods only)
Paint		EPA SW-846 3050B	
		EPA SW-846 7000B	
Soil		EPA SW-846 3050B	
		EPA SW-846 7000B	
Settled Dust by Wipe		NIOSH 7082	
		NIOSH 9100	
		OSHA ID 105 Modified	
Airborne Dust		NIOSH 7082	

A complete listing of currently accredited Environmental Lead laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>



## AIHA Laboratory Accreditation Programs, LLC

### SCOPE OF ACCREDITATION

#### **Forensic Analytical Laboratories, Inc.**

2959 Pacific Commerce Dr., Rancho Dominguez, CA 90221

Laboratory ID: **101629**

Issue Date: 09/29/2016

The laboratory is approved for those specific field(s) of testing/methods listed in the table below. Clients are urged to verify the laboratory's current accreditation status for the particular field(s) of testing/Methods, since these can change due to proficiency status, suspension and/or withdrawal of accreditation.

#### **Unique Scopes Laboratory Accreditation Program (Unique Scopes)**

**Initial Accreditation Date: 05/01/2014**

<b>Unique Scope Category</b>	<b>Field of Testing (FoT)</b>	<b>Method</b>	<b>Method Description</b> <i>(for internal methods only)</i>
<b>Consumer Product Testing</b>	Lead in Paint and Other Similar Surface Coatings	16 CFR Part 1303 (CPSC- CH-E1001-08.1)	MET 214
		16 CFR Part 1303 (CPSC- CH-E1002-08.1)	MET 215
		16 CFR Part 1303 (CPSC- CH-E1003-09)	MET 213

A complete listing of currently accredited Unique Scope laboratories is available on the AIHA-LAP, LLC website at: <http://www.aihaaccreditedlabs.org>

**Right People  
Right Perspective  
Right Now**

[www.forensicanalytical.com](http://www.forensicanalytical.com)