

American Environmental Specialists, Inc.



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February 12, 2007

Mr. Brad Edwards
City of Costa Mesa
77 Fair Drive
Costa Mesa, California 92628

RE: Asbestos, Lead-Based Paint, Visual Mold Survey Report
261 Monte Vista
Costa Mesa, California
AES Project No. 07-133

Dear Mr. Edwards:

Attached is the asbestos, lead-based paint survey, visual mold report for the subject facility. It represents our evaluation of the subject site with regard to asbestos-containing and lead-based painted materials in accordance with our agreement for a survey.

The objective of the evaluation was to identify asbestos and lead containing materials that are present at the site. The attached report documents our findings, assessments and recommendations.

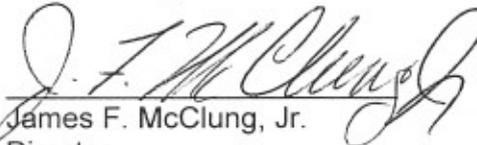
If you have any questions concerning the report, please call our office.

Sincerely,



Robert E. Kramer, Jr.
Project Manager
Asbestos Consultant Certification #92-0582
CA Accredited Lead Inspector/Assessor #I-1291

Reviewed by,



James F. McClung, Jr.
Director
Asbestos Consultant Certification #92-0382

Enc.

ASBESTOS, LEAD-BASED PAINT, AND VISUAL MOLD SURVEY REPORT

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1. EXECUTIVE SUMMARY

The buildings, located at 261 Monte Vista in Costa Mesa, California were surveyed by American Environmental Specialists, Inc. (AES) on January 31st and February 7th, 2007 for asbestos-containing materials (ACM) and lead-based paint. Mr. Norbert E. Kramer, Jr., a State of California Certified Asbestos Consultant #92-0582 and Accredited Lead Inspector/Assessor #11291 conducted the survey. The survey included visual observations for ACM and exterior suspected lead-based paint, sampling of accessible suspect materials, and laboratory analysis. Findings of the survey, recommendations and conclusions are summarized below. AES did not collect cores the roofs of the building, however AES did collect roof mastic samples.

Materials containing detectable quantities of asbestos - legally defined in California as materials containing percentages of asbestos greater than one percent (1%) by area were identified. Materials with these concentrations of asbestos are regulated by various government agencies.

Materials containing less than 1% asbestos were also identified in the building. In the State of California, materials that contain between <1% asbestos but greater than 0.1% by weight asbestos are considered to be Asbestos Containing Construction Material (ACCM). ACCM must be abated by a licensed and register asbestos abatement contractor, but can be disposed of as construction debris.

The State of California defines LBP as those materials, which contain greater than 1.0 mg/cm² or 5,000 parts per million (ppm) lead. The State of California also requires that if LBP with a lead concentration over 600ppm is to be disturbed, that the individuals performing the work have the proper lead training and wear personal protective equipment.

AES also conducted a visual mold survey in the facility. The mold survey consisted of a visual inspection of all accessible areas within the buildings, and the collection of random moisture reading on the interior walls and sink cabinets in the facility.

During the survey asbestos-containing materials, lead containing components, and visible mold and/or water damage was discovered.

2. BUILDING PROFILE

The buildings consists of five single story structures. AES believes that the date of the buildings construction was in the 1970's and 1980's. The exterior of the buildings consists of stucco. The interior walls are constructed of drywall and plaster, the ceilings are either 1' X 4' ceiling tiles or sprayed-on acoustic, in the areas that were accessible to AES. The floors are either carpet over concrete, ceramic tiles, floor tiles and sheet vinyl.

There are five (5) buildings on the site: The Administration Building, Classrooms #0-#4, Classrooms #5-#10, Classrooms #11 and #12, and the Pool House. According to the owner representative, each building was built at a separate time and therefore each building was treated as a separate unit for sampling, and the materials inside of each building were considered to be homogenous in nature. The Administration Building, Classrooms #0-#4, and Classrooms #11 and #12 all has sprayed-on acoustic ceiling. Classrooms #5-#10 had 1'x1' nailed on ceiling tiles.

The painting schemes in each building was also homogenous. The Administration Building and Classrooms #0-#4 did have painted windows, whereas the Classrooms #5-#10 and Classrooms #11 and #12 had anodized coated windows.

3. SURVEY DESCRIPTION

ASBESTOS

The asbestos survey was performed in accordance with EPA regulations and the criteria of the south Coast Air Quality Management District, Rule 1403.

AES collected one hundred and six (106) samples of suspect asbestos containing materials. The samples were submitted to L.A. Testing, Inc., in Los Alamitos California for analysis by Polarized Light Microscopy (PLM). L.A. Testing is accredited for bulk asbestos analysis through the Environmental Laboratory Accreditation Program (ELAP) and the National Voluntary Laboratory Accreditation Program (NVLAP) of the National Institute of Standards and Technology. The results are presented in units of area percentage, and are compared to the EPA threshold of 1% by area for classification as ACM.

The following presumed asbestos-containing materials were sampled during the survey:

- 1) Sprayed-on Acoustic Ceiling;
- 2) Floor Tile and associated mastic;
- 3) Drywall Mud;
- 4) 1' x 1' Ceiling Tiles;
- 5) Sheet Vinyl;
- 6) Window putty;
- 7) Mastic; and
- 8) Drywall

LEAD-BASED PAINT

The lead survey was performed using a RMD Model LPA-1B, X-Ray Fluorescence analyzer (XRF). The XRF provides on-site readings of the concentration of lead. The manufacturer had resourced the XRF in early September 2006. HUD defines lead-Based Paint (LBP), as those materials, which contain 1.0 mg/cm² of lead by XRF analysis. The survey was conducted in accordance with HUD guidelines, and the materials tested were selected based on color, component type, and substrate.

The overall painting scheme in the buildings was visually homogenous on a per building basis. Since the former school was built in three separate phases, each phase was treated separately.

Based on the HUD guidelines, the entire complex was inspected. A total of 113 readings, including calibrations, were taken in the former school.

MOLD

AES also conducted a visual mold survey in the facility. The mold survey consisted on a visual inspection of all accessible areas within the buildings and the collection of moisture reading on the interior walls and sink cabinets in the facility.

4. SURVEY RESULTS

ASBESTOS

The following table is a list of the samples of suspected asbestos-containing materials and their analytical results:

Sample No.	Material Type	Location	% Asbestos
A-1	Sprayed-on Acoustic Ceiling	Admin Bldg. Lobby	N.D.
A-2	Sprayed-on Acoustic Ceiling	Admin Bldg. Back Office	3
A-3	Sprayed-on Acoustic Ceiling	Admin Bldg. Lower Office	N.D.
A-4	Drywall	Admin Bldg. Lower Office	N.D.
A-5	Drywall	Admin Bldg. Back Office	N.D.
A-6	Drywall	Admin Bldg. Lobby	N.D.
A-7	Drywall Mud	Admin Bldg. Lobby	N.D.
A-8	Drywall Mud	Admin Bldg. Lower Office	N.D.
A-9	Drywall Mud	Admin Bldg. Hallway	N.D.
A-10	Exterior Stucco	Admin Bldg. South Wall	N.D.
A-11	Exterior Stucco	Admin Bldg. East Wall	N.D.
A-12	Exterior Stucco	Admin Bldg. North Wall	N.D.
0-1	Sprayed-on Acoustic Ceiling	Classroom # 0	2
0-2	Sprayed-on Acoustic Ceiling	Classroom # 0	3
0-3	Drywall Mud	Classroom #0	N.D.
0-4	Button Board	Classroom #0	N.D.
1-1	Sprayed-on Acoustic Ceiling	Classroom #1	2
1-2	Sprayed-on Acoustic Ceiling	Classroom #1	3
1-3	Button Board	Classroom #1	N.D.
1-4	9" Brown Floor Tile	East Closet	3
1-5	9" Brown Floor Tile	East Closet	5

**TABLE 1
 ASBESTOS ANALYTICAL RESULTS**

Sample No.	Material Type	Location	% Asbestos
1-6	9" Brown Floor Tile	East Closet	3
1-7	Black Mastic	Under 9" Tile	7
1-8	Black Mastic	Under 9" Tile	8
1-9	Black Mastic	Under 9" Tile	7
2-1	Sprayed-on Acoustic Ceiling	Classroom #2	N.D.
2-2	Sprayed-on Acoustic Ceiling	Classroom #2	N.D.
2-3	Wall Plaster	Classroom #2	N.D.
3-1	Sprayed-on Acoustic Ceiling	Classroom #3	N.D.
3-2	Sprayed-on Acoustic Ceiling	Classroom #3	N.D.
3-3	Wall Plaster	Classroom #3	N.D.
3-4	Sprayed-on Acoustic Ceiling	Classroom #3	N.D.
3-5	Sprayed-on Acoustic Ceiling	Classroom #3	N.D.
4-1	Sprayed-on Acoustic Ceiling	Classroom #4	N.D.
4-2	Sprayed-on Acoustic Ceiling	Classroom #4	N.D.
4-3	Wall Plaster	Classroom #4	N.D.
4-4	Sheet Vinyl	Classroom #4	N.D.
	Mastic	Under Sheet Vinyl	N.D.
4-5	Sheet Vinyl	Classroom #4	N.D.
	Mastic	Under Sheet Vinyl	N.D.
4-6	Sheet Vinyl	Classroom #4	N.D.
	Mastic	Under Sheet Vinyl	N.D.
4-7	Mirror Mastic	Classroom #4	N.D.
4-8	Mirror Mastic	Classroom #4	N.D.
4-9	Mirror Mastic	Classroom #4	N.D.
4-10	Sprayed-on Acoustic Ceiling	Classroom #4	N.D.
4-11	Sprayed-on Acoustic Ceiling	Classroom #4	N.D.
IE-1	Window Putty	Ext. Window Classroom #2	N.D.

**TABLE 1
 ASBESTOS ANALYTICAL RESULTS**

Sample No.	Material Type	Location	% Asbestos
IE-2	Window Putty	Ext. Window Classroom #2	N.D.
IE-3	Window Putty	Ext. Window Classroom #2	N.D.
IE-4	Exterior Stucco	Outside Classroom #1	N.D.
IE-5	Exterior Stucco	Outside Classroom #4	N.D.
IE-6	Exterior Stucco	Outside Classroom #4	N.D.
5-1	12" Ceiling Tiles	Classroom #5	N.D.
5-2	12" Ceiling Tiles	Classroom #5	N.D.
5-3	12" Ceiling Tiles	Classroom #5	N.D.
5-4	Base Cove Mastic	Classroom #5	N.D.
5-5	Base Cove Mastic	Classroom #5	N.D.
5-6	Base Cove Mastic	Classroom #5	N.D.
5-7	Drywall	Classroom #9	N.D.
9-1	Drywall	Classroom #9	N.D.
9-2	Drywall	Classroom #9	N.D.
9-3	Base Cove Mastic	Classroom #9	N.D.
9-4	Exterior Stucco	Classrooms 5-10 Bldg.	<1
9-5	Exterior Stucco	Classrooms 5-10 Bldg.	<1
9-6	Exterior Stucco	Classrooms 5-10 Bldg.	<1
11-1	Sprayed on Acoustic Ceiling	Classroom #11	N.D.
11-2	Sprayed on Acoustic Ceiling	Classroom #11	N.D.
11-3	Sprayed on Acoustic Ceiling	Classroom #12	N.D.
11-4	Joint Compound	Classroom #11	N.D.
11-5	Joint Compound	Classroom #11	N.D.
11-6	Joint Compound	Classroom #12	N.D.
11-7	Drywall	Classroom #11	N.D.
11-8	Drywall	Classroom #11	N.D.
11-9	Drywall	Classroom #12	N.D.

**TABLE 1
ASBESTOS ANALYTICAL RESULTS**

Sample No.	Material Type	Location	% Asbestos
11-10	Exterior Stucco	Classroom #11 and #12	N.D.
11-11	Exterior Stucco	Classroom #11 and #12	N.D.
11-12	Exterior Stucco	Classroom #11 and #12	N.D.
PH-1	Exterior Stucco	Pool House	<1
PH-2	Exterior Stucco	Pool House	N.D.
PH-3	Exterior Stucco	Pool House	N.D.
AR-1	Roofing Felts	Administration Bldg.	N.D.
AR-2	Roofing Felts	Administration Bldg.	N.D.
AR-3	Roofing Felts	Administration Bldg.	N.D.
AR-4	Roof Mastic	Administration Bldg.	5
AR-5	Roof Mastic	Administration Bldg.	5
AR-6	Roof Mastic	Administration Bldg.	5
1R-1	Roof Mastic	Classrooms #0-#4	N.D.
1R-2	Roof Mastic	Classrooms #0-#4	N.D.
1R-3	Roof Mastic	Classrooms #0-#4	N.D.
5R-1	Roof Mastic	Classrooms #5-#10	N.D.
5R-2	Roof Mastic	Classrooms #5-#10	N.D.
5R-3	Roof Mastic	Classrooms #5-#10	N.D.
PHR-1	Roof Mastic	Pool House	N.D.
PHR-2	Roof Mastic	Pool House	N.D.
PHR-3	Roof Mastic	Pool House	N.D.
11R-1	Roof Mastic	Classrooms #11-#12	N.D.
11R-2	Roof Mastic	Classrooms #11-#12	N.D.
11R-3	Roof Mastic	Classrooms #11-#12	N.D.

N.D. – None Detected

Bold – Sample contains asbestos

LEAD RESULTS

The results of the XRF analysis indicated that, with the exception of the components listed below, none of the components tested had a lead concentration over 1.0 mg/cm². This is below the HUD criteria. All of the interior painted surfaces were intact or in fair condition.

The following are components that had a lead concentration of over 1.0 mg/cm²:

- 1) Administration Building:
 - a. Interior Door Frames – 1.2 to 1.8 mg/cm²;
 - b. Window Frame separating the Lobby from the Back Office – 1.8 mg/cm²
- 2) Classrooms #0-#4
 - a. Green, small metal windows at east side of classrooms (10 windows), - 0.7 to 1.0 mg/cm²;
 - b. Brown Ceramic Wall Tile, East closet of Classroom #1 - >9.9 mg/cm²;
- 3) Classrooms #0-#4 and Classrooms #5 to #10 – Porcelain sink - >9.9 mg/cm²;
- 4) Classrooms #0-#4 – Green Wall Tile – Boys Restroom - >9.9 mg/cm²;
- 5) Classroom #6 – Entry Door – 2.2 mg/cm²; and
- 6) Classrooms #11 and #12 – Brown Floor Tile ->9.9 mg/cm²

The following components had a lead concentration of over 0.4 mg/cm². These components may have a lead concentration of over 600 ppm lead, the State of California standard for potential exposure to lead dust, if the paint is disturbed:

- 1) Administration Building – Back Office, Wood Window sills – 0.5 mg/cm²; and
- 2) Classroom #0-#4 Building – Exterior Paint, by Restrooms -0.5 mg/cm².

MOLD

The following are the observations and moisture results for the buildings. The acceptable range of moisture in drywall is (0.0 – 0.8%) and in wood is (8.0 – 20.0%).

- 1) Administration Building – No concerns identified;
- 2) Classroom # 0 - No concerns identified;
- 3) Classroom # 1 –
 - a. Wood cabinet under sink – Moisture up to 19%. And bubbling of plaster under sink;
 - b. Southeast Closet – Mold staining on rear wall and moisture of wall elevated.
- 4) Classroom # 2 –
 - a. Mold growth and elevated moisture in northeast corner of room, under wallpaper;
 - b. Water damage under sink and on sink wall.

- 5) Classroom # 3 –
 - a. Visible water under sink, active leak.
- 6) Classroom # 4 –
 - a. Water staining under sink.
- 7) Classrooms # 5 to #10 – No concerns identified
- 8) Classroom #11
 - a. Water damage under sink
- 9) Classroom #12 – No concerns identified.

5. FINDINGS AND RECOMMENDATIONS

ASBESTOS

The materials that tested positive, over 1%, for asbestos are:

- 1) Sprayed-on acoustic ceiling –
 - a) Back office of the Administration Building – Approximately 200 square feet.
 - b) Classrooms #0 and #1– Approximately 350 square feet.
- 2) Floor tile and associated -
 - a. East Closet of Classroom #1 (2-layers) - Approximately 40 square feet.
- 3) Roof Mastic
 - a) Administration Building - Approximately 10 square feet.

The materials that tested positive, less than 1%, for asbestos are:

- 1) Exterior Stucco
 - a. Pool House and Classroom #5 to #10 Building - Approximately 2,000 square feet.

All of the materials listed above were in good condition at the time of the inspection.

In California, abatement of asbestos-containing materials, with asbestos content of greater than 1% by weight, must be performed by a licensed, certified, and registered asbestos abatement contractor. If the abatement exceeds 100 square feet a fourteen (14) calendar day notification to the South Coast Air Quality Management District is required. A fourteen (14) calendar day notification to the SCAQMD is also required for the demolition of the building.

In the State of California, materials that contain between <1% asbestos but greater than 0.1% by weight asbestos are considered to be Asbestos Containing Construction Material (ACCM). ACCM must be abated by a licensed and register asbestos abatement contractor, but can be disposed of as construction debris.

If these materials will not be disturbed in the future, AES recommends that an asbestos Operations and Maintenance Plan (O&M) be written for the site. Utilizing the O&M plan, these materials can be managed in place until such a time that their removal is deemed necessary.

The estimated cost for the abatement of these materials are as follows:

- 1) Sprayed-on acoustic ceiling - \$2.00 to \$2,50 per square foot;
- 2) Floor Tile and Mastic - \$2.00 per square foot, if performed in conjunction with other abatement;
- 3) Exterior Stucco - \$2.00 per square foot.

LEAD

All of the lead containing components were in intact condition at the time of the inspection. If these materials are not be disturbed in the future, then no further action is required. If the materials are to be disturbed ,as part of a renovation and/or demolition project, then these materials must be abated by individuals that have the proper lead training and wear personal protective equipment.

The State of California defines LBP as those materials, which contain greater than 1.0 mg/cm² or 5,000 parts per million (ppm) lead. The State of California also requires that if LBP with a lead concentration over 600ppm is to be disturbed, that the individuals performing the work have the proper lead training and wear personal protective equipment.

Since the lead concentration lead in the paint and or ceramic tiles is over 1,000 ppm lead, these must be characterized for disposal in the State of California. A Toxicity Characteristic Leaching Procedure analysis must be performed to determine the method of disposal.

The estimated cost for the abatement of these materials will be between \$2.00 to \$5.00 per square foot, depending on the results of the waste characterization analysis.

MOLD

AES recommends that the water leaks under the sinks be repaired and that the water damaged sink cabinets be removed and replaced. In the areas where mold growth and/or mold staining were observed, remediation of these areas should be performed.

Place the areas under containment. Negative air machines and dehumidifiers will be used to reduce the inside spore count and moisture readings within the area. The negative air machines should be exhausting air to the outside until moisture and particulate levels have been lowered (from the beginning of the project to the beginning of the final cleaning of the area). A 2-stage decontamination unit should be implemented onto the containment area. Utilize make-up air for the containment area from a separate negative air source (HEPA-filtered positive pressure) during the final cleaning stage to reduce the amount of outside spores entering the containment area. Once the containment(s) have been established the following should be performed.

Classroom #1

- Remove the back plaster wall from below the window to the floor and the entire width of that wall. It may be necessary to continue the removal along the north wall of this area.

Classroom #2

- Remove the affected plaster wall approximately four feet from the floor and approximately 6 feet from the northeast east corner of the area. It may be necessary to continue the removal along the north wall of this area.

It should be noted that the mold concern in these areas are most likely from the same water intrusion.

Remove materials at least 18" beyond visible mold growth/water damaged area. Remove mold/fungal growth from the exposed areas. Grinding efforts may be utilized to remove mold/fungus from the exposed wood studs, if needed. Disinfect the exposed wall cavities and all surfaces with Anabec® or an equivalent anti-bacterial solution to minimize or prevent mold growth. NOTE: Additional plaster removal from surfaces may be needed to properly remediate visible mold and/or moisture staining. Bag and dispose of materials as construction waste.

A general and final cleaning of all surfaces, utilizing wet wiping and HEPA vacuuming methods for fixtures, equipment, cabinets, carpeting, and all other cleanable surfaces in the containment area. The objective of the cleaning is to remove excess dust and residual mold spores.

Once the remediation has been completed and the areas allowed to sit for a minimum of 48 hours, with the negative air machines and dehumidifiers running, an independent third party consultant should performed final air and wipe clearance samples to determine if the remediation was successful.