

AMENDMENT OF SOLICITATION/MODIFICATION OF CONTRACT			1. Contract Number	Page of Pages 1 1
2. Amendment/Modification Number DCAM-2011-B-0058-002	3. Effective Date 12-Jan-11	4. Requisition/Purchase Request No.	5. Solicitation Caption See Below	
6. Issued By: Department of Real Estate Services (DRES) Contracting and Procurement Division 2000 14th Street, N.W., 5th Floor Washington, D.C. 20009		Code 03B	7. Administered By (If other than line 6)	
8. Name and Address of Contractor (No. Street, city, country, state and ZIP Code)			(X) 9A. Amendment of Solicitation No. DCAM-2011-B-0058	9B. Dated (See Item 11) 27-Dec-10
Code _____ Facility _____			10A. Modification of Contract/Order No.	
			10B. Dated (See Item 13)	
11. THIS ITEM ONLY APPLIES TO AMENDMENTS OF SOLICITATIONS				
<input type="checkbox"/> The above numbered solicitation is amended as set forth in Item 14. The hour and date specified for receipt of Offers <input type="checkbox"/> is extended. <input checked="" type="checkbox"/> is not extended. Offers must acknowledge receipt of this amendment prior to the hour and date specified in the solicitation or as amended, by one of the following methods: (a) By completing Items 8 and 15, and returning <u>2</u> copy of the amendment; (b) By acknowledging receipt of this amendment on each copy of the offer submitted; or (c) By separate letter or fax which includes a reference to the solicitation and amendment number. FAILURE OF YOUR ACKNOWLEDGEMENT TO BE RECEIVED AT THE PLACE DESIGNATED FOR THE RECEIPT OF OFFERS PRIOR TO THE HOUR AND DATE SPECIFIED MAY RESULT IN REJECTION OF YOUR OFFER. If by virtue of this amendment you desire to change an offer already submitted, such change may be made by letter or fax, provided each letter or telegram makes reference to the solicitation and this amendment, and is received prior to the opening hour and date specified.				
12. Accounting and Appropriation Data (If Required)				
13. THIS ITEM APPLIES ONLY TO MODIFICATIONS OF CONTRACTS/ORDERS, IT MODIFIES THE CONTRACT/ORDER NO. AS DESCRIBED IN ITEM 14				
(X)	A. This change order is issued pursuant to: (Specify Authority) The changes set forth in Item 14 are made in the contract/order no. in item 10A.			
	B. The above numbered contract/order is modified to reflect the administrative changes (such as changes in paying office, appropriation data, etc.) set forth in item 14, pursuant to the authority of 27 DCMR, Chapter 36, Section 3601.2.			
	C. This supplemental agreement is entered into pursuant to authority of:			
	D. Other (Specify type of modification and authority)			
E. IMPORTANT: Contractor <input type="checkbox"/> is not, <input checked="" type="checkbox"/> is required to sign this document and return <u>1</u> copy to the issuing office.				
14. Description of amendment/modification (Organized by UCF Section headings, including solicitation/contract subject matter where feasible.)				
<p>Caption: Renovation of 107 & 117 Wayne Place, S.E.</p> <p>Add the following to Section J "List of Attachments"</p> <p>1. Attachment J.15 - Limited Hazardous Materials Survey Report for 107 Wayne Place, S.E. 2. Attachment J.16 - Limited Hazardous Materials Survey Report for 117 Wayne Place, S.E.</p> <p>The opening date for receipt of bids, time and place remains the same.</p>				
Except as provided herein, all terms and conditions of the document referenced in Item (9A or 10A) remain unchanged and in full force and effect				
15A. Name and Title of Signer (Type or print)			16A. Name of Contracting Officer Diane Wooden	
15B. Name of Contractor		15C. Date Signed	16B. District of Columbia <i>Diane Wooden</i>	16C. Date Signed <i>11/11/11</i>
(Signature of person authorized to sign)			(Signature of Contracting Officer)	



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LIMITED HAZARDOUS MATERIALS SURVEY REPORT

**107 Wayne Place, SE
Washington, D.C. 20032**

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F&R Project Number K68-128E

March 30, 2009

Prepared by:

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A handwritten signature in black ink that reads 'Chris Chapman'.

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APPENDICES

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1.0 Introduction

As authorized by Atelier Architects, P.L.L.C. (Client), Froehling & Robertson, Inc. (F&R) personnel performed a limited non-invasive hazardous materials survey of 107 Wayne Place, SE on March 10th and 12th, 2009 in support of proposed renovation activities at the site.

The site consists of a three-story vacant multi-family residential building which contains five (5) apartment units and a laundry room. Typical interior finishes consist of sheetrock and plaster walls, 12"x12" vinyl floor tiles, and linoleum sheeting.

The scope of the hazardous materials survey for this building consisted of the following items only:

- Non-invasive Survey for suspect asbestos-containing materials (ACMs)
- Screening of surface coatings that may contain lead-based paint (LBP)
- Non-invasive inventory of suspect PCB-containing light ballasts and mercury-containing components
- Visual survey for mold growth and moisture intrusion

2.0 Asbestos-Containing Material (ACM)

2.1 Methodology

For this project, a non-invasive visual survey and sampling for suspect ACMs were conducted at the above referenced site.

All samples were collected by an Environmental Protection Agency-Asbestos Hazard Emergency Response Act (EPA-AHERA) accredited Asbestos Inspector and submitted to EMSL Analytical, Inc. (EMSL) located in Beltsville, Maryland. EMSL is accredited for the analysis of bulk asbestos samples by the National Voluntary Laboratory Accreditation Program (NVLAP). A total of thirty-one (31) samples were collected and analyzed using Polarized Light Microscopy (PLM) following EPA Method 600/R-93/116.

2.2 Results (Refer also to Appendix A for Laboratory Reports)

TABLE 1 ACM LABORATORY RESULTS			
Sample #	Sample Location	Sample Type	Analytical Results
107-01	1 st Floor South Side Apt. Bathroom	Sheetrock	No Asbestos Detected
107-02	1 st Floor South Side Apt. Bathroom	Joint Compound	No Asbestos Detected
107-03	1 st Floor South Side Apt. Bathroom	Sheetrock/Joint Compound Composite	No Asbestos Detected
107-04	1 st Floor South Side Apt. Living Room	Black Remnant Floor Tile Mastic	No Asbestos Detected



**TABLE 1
ACM LABORATORY RESULTS**

Sample #	Sample Location	Sample Type	Analytical Results
107-05	1 st Floor South Side Apt. Kitchen	12"x12" Tan Vinyl Floor Tile	No Asbestos Detected
107-06	1 st Floor South Side Apt. Kitchen	Floor Tile Mastic	No Asbestos Detected
107-07	1 st Floor Stairwell	Skim Coat Wall Plaster	No Asbestos Detected
107-08	1 st Floor Stairwell	Scratch Coat Wall Plaster	No Asbestos Detected
107-09	1 st Floor Stairwell	Slate Stair	No Asbestos Detected
107-10	1 st Floor South Side Apt. Bathroom	Ceramic Floor Tile Mastic	No Asbestos Detected
107-11	1 st Floor South Side Apt. Dining Room	Waterproofing	No Asbestos Detected
107-12	3 rd Floor South Side Apt. Dining Room	12"x12" Red Linoleum Flooring (Top Layer)	No Asbestos Detected
107-12A	3 rd Floor South Side Apt. Dining Room	Linoleum Mastic	No Asbestos Detected
107-13	3 rd Floor South Side Apt. Dining Room	12"x12" White Linoleum Flooring (2 nd Layer)	No Asbestos Detected
107-13A	3 rd Floor South Side Apt. Dining Room	Linoleum Mastic	No Asbestos Detected
107-14	Roof	Roofing Tar	No Asbestos Detected
107-15	Roof	Roofing Felt	35% Chrysotile
107-16	2 nd Floor Stairwell	Skim Coat Wall Plaster	No Asbestos Detected
107-17	2 nd Floor Stairwell	Scratch Coat Wall Plaster	No Asbestos Detected
107-18	3 rd Floor Stairwell	Skim Coat Wall Plaster	No Asbestos Detected
107-19	3 rd Floor Stairwell	Scratch Coat Wall Plaster	No Asbestos Detected
107-20	Attic	Electrical Wiring Insulation	No Asbestos Detected
107-21	2 nd Floor North Side Apartment Dining Room	Sheetrock	No Asbestos Detected
107-22	2 nd Floor North Side Apartment Dining Room	Joint Compound	No Asbestos Detected
107-23	2 nd Floor North Side Apartment Dining Room	Sheetrock/Joint Compound Composite	No Asbestos Detected
107-24	3 rd Floor North Side Apartment Dining Room	Sheetrock	No Asbestos Detected
107-25	3 rd Floor North Side Apartment Dining Room	Joint Compound	No Asbestos Detected
107-26	3 rd Floor North Side Apartment Dining Room	Sheetrock/Joint Compound Composite	No Asbestos Detected
107-27	2 nd Floor North Side Apartment	Door Insulation	No Asbestos Detected
107-28	Rear Exterior	Exterior Window Caulk	No Asbestos Detected



**TABLE 1
ACM LABORATORY RESULTS**

Sample #	Sample Location	Sample Type	Analytical Results
107-29	2 nd Floor North Side Apartment Bedroom	Wood Floor Underlayment	No Asbestos Detected

2.3 Conclusions and Recommendations

The following material was determined to be asbestos-containing (contain greater than 1% asbestos) through laboratory analysis: **roofing felt**. Please see **Table 2** below for a summary of the ACM located within the building.

**TABLE 2
ACM SUMMARY**

Sample Description	Location	Approximate Quantity	Condition	Asbestos Content
Roofing Felt	Roof	3,000 Square Feet	Fair	3% Chrysotile

F&R offers the following observations in regards to the information presented in **Table 2**:

- Areas behind plaster walls and ceilings were inaccessible and could not be visually surveyed for ACM. F&R made every attempt to inspect areas behind existing wall penetrations and did not observe any ACM in these areas; however ACM including, but not limited to, thermal pipe insulation and thermal pipe fitting insulation may exist in those locations.
- The estimates provided are preliminary and are not meant for contractor bidding purposes. Additional and/or greater quantities of these ACM's may be discovered during renovation/demolition activities. Additional field verification will be needed to confirm these quantities.

2.3.1 Non-Friable Asbestos-Containing Materials

Asbestos (3% Chrysotile) was detected in a sample of roofing felt. This material is classified as non-friable asbestos and was generally in fair condition in the areas observed. F&R recommends that all roofing felt be assumed to be asbestos-containing.

2.3.2 Friable Asbestos Containing Materials

No friable asbestos-containing materials were observed during our investigation.



2.4 Applicable Regulations

EPA / NESHAP Regulations for Asbestos Containing Materials

The U.S. Environmental Protection Agency promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61], which addresses the application, removal, and disposal of ACMs. Under NESHAP the following categories are defined for ACMs:

Friable - When dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Non-friable - When dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Category I Non-friable ACM - Packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos.

Category II Non-friable ACM – Any material, excluding Category I Non-friable ACM, containing more than 1% asbestos.

Regulated Asbestos Containing Material (RACM) – One of the following:

1. Friable ACM
2. Category I Non-friable ACM that has become friable.
3. Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
4. Category II Non-friable ACM that has a high probability of becoming, or has become, friable by the forces expected to act on the material in the course of demolition or renovation operations.

Under NESHAP, the following actions are required:

1. Prior to the commencement of demolition or renovation activities, the building owner must inspect the affected facility or part of the facility where the demolition or renovation activities will occur for the presence of asbestos.
2. Remove all RACM from the facility before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access for subsequent removal.
3. RACM need not be removed if:
 - a) It is Category I non-friable ACM that is not in poor condition.
 - b) It is on a facility component that is encased in concrete or other similar material and is adequately wet whenever exposed.
 - c) It was not accessible for testing and was therefore not discovered until after demolition began and because of the demolition the material cannot be safely removed.
 - d) It is Category II non-friable ACM and the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition.



3.0 Lead-Based Paint

3.1 Methodology

A lead-based paint (LBP) screening was performed to test a representative number of painted surfaces for the presence of lead. The testing was conducted by using a Niton XL-309 X-Ray Fluorometer (XRF) Lead Paint Analyzer. The XRF contains a small radioisotopic source and operates on the principle of x-ray fluorescence, whereby lead atoms in paint are stimulated to emit characteristic x-rays, which are then detected by the instrument. The XRF can measure surface or non-surface concentrations of lead with 95% accuracy at the District of Columbia action level of 0.7 mg/cm². Levels of lead are reported in units of milligrams per square centimeter (mg/cm²). The XRF is able to accurately detect as little as 0.1 mg/cm² of lead. The XRF classifies painted surfaces as “positive” or “negative” for lead content based on the District of Columbia action level (0.7 mg/cm²) and the performance characteristics of the XRF.

Positive: Lead is present at or above the District of Columbia action level of 0.7 mg/cm² on *one or more* of the components.

Negative: Lead is not present at or above the District of Columbia action level of 0.7 mg/cm² on any of the components.

The survey was generally conducted using the methodology recommended by the U.S. EPA/Department of Housing and Urban Development (HUD). Modifications were made where appropriate for this project. It is important to note that this survey was not a comprehensive, surface-by-surface evaluation, but rather a screening survey of major painted components, which may contain LBP.

3.2 Results

A total of fifty-eight (58) readings were taken as part of this survey. Based on the results of this survey the following surfaces should be assumed to contain LBP (surfaces containing lead concentrations above the District of Columbia action level of 0.7 milligrams per square centimeter):

- Brown Exterior Wood Door Frame
- Brown Metal Stair Baluster

The remainder of the painted surfaces within the building should be assumed to contain lead-containing paint (paint with detectable lead concentrations but below the District of Columbia action level). Reference the attached XRF Data Table for a complete list of sampled components and results.

3.3 Recommendations

It is important to note that OSHA, under its Lead in Construction standard (29 CFR 1926.62, Paragraph d), does not define acceptable levels of lead in paint at which no exposure to airborne lead (above the action level) would be expected. Rather, OSHA defines airborne concentrations, and references specific types of work practices and operations from which a lead hazard may be generated. Environmental and personnel monitoring should be conducted during any removal/demolition process (as appropriate) to verify that actual personal exposures are below the Permissible Exposure Limit (PEL). Under OSHA requirements, the contractor performing the work will be required to conduct this monitoring and follow all of the other requirements found under 29 CFR 1926.62. Based on the findings of this



survey, F&R recommends that all painted surfaces be assumed to contain LBP or lead-containing paint.

In accordance with the *District of Columbia Lead-Based Paint Abatement and Control Act of 1996* and the EPA and HUD *Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X)*, a lead-based paint inspection and risk assessment should be conducted according to EPA/HUD and District of Columbia protocols by a District of Columbia licensed Lead Risk Assessor prior to occupancy of the building by children under the age of 8. If the lead-based paint inspection and risk assessment shows that lead-based paint hazards exist at the site, then a lead-based paint management plan should be prepared and implemented by a District of Columbia licensed Lead Risk Assessor.

Additionally, according to District of Columbia and EPA/HUD regulations any lead paint “abatement” defined as work done to permanently eliminate a lead-based paint hazard in a facility occupied by children under the age of 8, is to be performed by a District of Columbia licensed Lead Paint Abatement Contractor. Lead paint abatement does not include renovation, remodeling, landscaping, or other activities, when such activities are not designated to permanently eliminate lead-based paint hazards, but, instead are designed to repair, restore, or remodel a given structure or dwelling, even though these activities may incidentally result in a reduction or elimination of lead-based paint hazards.

3.4 Applicable Regulations

OSHA

Positive and negative results are based on the US Department of Housing and Urban Development Guidelines. It is important to note that if a component is negative based on the HUD standard, it may still contain concentrations of lead in the paint, which when disturbed, may generate lead dust greater than the maximum exposure concentration of 30 micrograms per cubic millimeter established by the OSHA “Lead Exposure in Construction Rule (29 CFR 1926.62).” The OSHA standard gives no guidance on acceptable levels of lead in paint at which no exposure to airborne lead (above the action level) would be expected. Rather, OSHA defines airborne concentrations, and references specific types of work practices and operations from which a lead hazard may be generated (reference 29 CFR 1926.62, section d). Environmental and personnel monitoring should be conducted during any removal or demolition process (as appropriate) to determine actual personal exposure. This monitoring information can be used to determine the levels of personnel protection and environmental controls required for work involving specific removal/demolition processes on specific structures. Under OSHA requirements, the Contractor performing the work will be required to conduct this monitoring. It is important to note that environmental controls will vary dependent upon the content of lead in paint, the process used to remove it, duration of the work, and the amount of paint to be removed.

EPA/HUD

Title X requires the following for lead-based paint activities that are required when completing housing rehabilitation work valued between \$5,001 and \$25,000 when Federal Assistance is involved:

- Disclosure to tenants of lead-based paint present in the building
- Paint testing of surfaces to be disturbed or presumption that the surface contains lead-based paint
- Lead-based paint risk assessment



- Lead-based paint hazard control
- Use of lead-safe work practices
- Tenant notices of planned lead-based paint disturbance
- On-going lead-based paint management
- Clearance testing after disturbance of areas with lead-based paint

District of Columbia

The *District of Columbia Lead-Based Paint Abatement and Control Act of 1996* requires that all lead-based paint abatement in facilities that are occupied by children under the age of 8 be conducted by District of Columbia licensed Lead-Based Paint Abatement Contractors. Additionally, lead-based paint inspections and risk assessments/management plans completed in these facilities be conducted by District of Columbia licensed Lead Paint Inspectors and Risk Assessors respectively.

4.0 PCBs

4.1 Methodology

Light ballasts are the electrical components attached to fluorescent light fixtures usually found under a metal cover plate. Prior to 1978, ballasts were commonly manufactured with polychlorinated biphenyls (PCBs). PCBs were used in fluorescent light ballasts because of their good electrical insulating capabilities. Ballasts made after 1978 are usually marked "Non-PCB."

4.2 Results

F&R did not observe any fluorescent light ballasts at the site.

5.0 Mercury-Containing Components

5.1 Methodology

Mercury is used in several building components including fluorescent lamps and thermostats. In fluorescent lighting, mercury-containing dust forms from the mercury vapor found within the lamps.

5.2 Results

During this survey, F&R personnel observed one (1) presumed mercury-containing thermostat in the laundry room. No fluorescent lamps were observed at the site.

5.3 Findings and Recommendations

The mercury-containing thermostat should be removed and disposed of/recycled according to Federal and District of Columbia guidelines by an appropriately licensed/certified contractor if it is to be impacted by renovation activities.



6.0 Limited Mold and Water Intrusion Study

6.1 Methodology

F&R visually surveyed the building for evidence of mold and water damage and collected moisture readings from various surfaces. Moisture contents in suspect water-damaged materials were measured using a Protimeter® MMS Moisture Meter. The Protimeter was used in the “measure mode” for this survey. Using this mode measurements are taken by inserting the pins of the moisture probe into the material being tested. For wood substrates, the moisture percentage is expressed as “% Moisture Content (MC)”; for other materials this number is expressed as “% Wood Moisture Equivalent (WME)”. In general, %MC or %WME values of less than 17 are considered “dry”, values greater than or equal to 17 but less than 20 are considered “at risk” for moisture damage, and values of 20 or greater are considered “wet”.

6.2 Results

Below is a summary of the mold growth and water intrusion issues observed by F&R:

1st Floor South Side Apartment

- Mold was observed on the bottom 3’ of the sheetrock walls throughout the living room, dining room and kitchen. This mold growth was also observed on the wood studs underneath. “Wet” moisture readings were recorded on the sheetrock walls; however, the wood studs recorded “dry” readings.
- Mold was observed on 10 square feet of the sheetrock walls in the bedroom. No mold growth was observed on the wood studs underneath. “Dry” moisture meter readings were recorded in this area.
- Mold was observed on the bottom 1’ of sheetrock walls in the bathroom. No mold growth was observed on the wood studs underneath. “Wet” moisture readings were recorded on the sheetrock wall and ceiling.

1st Floor Laundry Room

- Mold was observed on the bottom 4’ of sheetrock walls throughout the laundry room. This mold growth was also observed on the wood wall studs underneath. “Wet” moisture readings were recorded on the walls, ceiling and wall studs.
- Mold growth was observed on the wood ceiling joists in the southwest back room. “Wet” moisture readings were recorded on the ceiling joists in this area.

1st Floor Stairwell

- Mold was observed on the sheetrock partition adjacent to the crawl space. This mold growth was also observed on the wood wall studs underneath. “Wet” moisture readings were recorded on the sheetrock wall and the wood wall studs.



2nd Floor North Side Apartment

- Areas of mold growth were observed on the sheetrock walls and ceiling throughout this apartment. This mold growth was also observed on the wood wall studs. “Wet” moisture readings were recorded on the sheetrock walls and ceilings and wood wall studs.
- Areas of mold growth and “wet” moisture readings were observed on the wood floors throughout this apartment.

2nd Floor South Side Apartment

- Mold was observed on the wood closet door and door frame, sheetrock wall and wood ceiling joists and deck in the bathroom. No mold growth was observed on the wood wall studs. The moisture meter readings in this area were recorded as “at risk”.
- Areas of mold growth were observed on the wood floors throughout this apartment. The moisture meter readings on the wood floors in this area were recorded as “dry”.
- Areas of moisture damage and “wet” moisture meter readings were observed on the sheetrock walls and ceiling of the dining room. No mold growth was observed in this area.
- “Wet” moisture meter readings were recorded on the sheetrock ceiling of the kitchen. No mold growth was observed in this area.

3rd Floor North Side Apartment

- Areas of mold growth and “at risk” moisture readings were observed on the wood floors throughout this apartment.
- “Wet” moisture meter readings were recorded on the sheetrock walls of the kitchen. No mold growth was observed in this area.
- Mold growth was observed on the wood closet shelves in the bathroom. Moisture meter readings in this area were recorded as “dry”.

3rd Floor South Side Apartment

- Mold growth was observed on the wood ceiling joists and sheetrock ceiling of the bathroom. Moisture meter readings on the ceiling joists and ceiling were recorded as “wet” in this area.

6.3 Findings and Recommendations

- a) Based upon our observations, F&R recommends drying/mold remediation of all impacted areas by a qualified contractor prior to tenant occupancy and installation of new finishes. F&R also recommends consultation with a qualified building engineer to identify and correct all potential moisture intrusion sources into the building.
- b) F&R recommends that remediation activities be performed in general accordance with the guidelines described in EPA’s March 2001 document “Mold Remediation in Schools and Commercial Buildings”. Due to the visible fungal growth and/or moisture damage in the affected areas and widespread nature of the contamination observed, F&R recommends following the procedures given in Table 2: “Guidelines for Remediating Building Materials with Mold Growth Caused by Clean Water” for large areas greater than 100 square feet.
- c) Pressure differential should be -0.02 inches of water gauge between the outside and inside of containment. Provide HEPA-filtered local exhaust ventilation (negative air machine) directly adjacent to the areas being cleaned. Continuously maintain negative pressure and HEPA filtration inside the containment during remediation activities and until 24-48 hours



prior to clearance sampling, as directed by the Industrial Hygienist. **Keep plastic barriers in place until the Industrial Hygienist grants clearance.** All work areas should remain sealed and off-limits to all but essential remediation personnel until after completion of post-remediation testing.

- d) F&R recommends removal of sheetrock and insulation (if present) four feet up all of the walls in impacted areas. The Contractor should have a Protimeter or similar meter to verify that all wet/moist sheetrock is removed as part of this process. Mold present on solid wood surfaces such as wood framing and floors may require sanding of the surface along with application of a wide-acting antimicrobial agent. This will need to be evaluated during the remediation by a qualified contractor or engineer. Metal/PVC pipes and support structures should be cleaned and decontaminated by damp-wiping, HEPA vacuuming and brushing.
- e) In conjunction with the procedures described above, F&R also recommends a thorough HVAC system cleaning by a qualified contractor after all remediation work is completed. Any cleaning of the ducts and the HVAC unit should be in accordance with the National Air Duct Cleaners Association (NADCA) guidelines.
- f) A moisture meter should be used in conjunction with this remediation to verify that all areas with moisture intrusion (framing, sheetrock walls, sub floor) have been removed or dried.
- g) All workers performing mold remediation should wear proper personal protective equipment (PPE) including HEPA filtered respirators and disposable clothing in accordance with all appropriate Occupational Health and Safety Administration (OSHA) standards.
- h) Due to the complexity of this project, it is recommended that the Owner, the remediation contractor and the Industrial Hygiene consultant meet to review the scope of work prior to beginning any remediation.
- i) Post-remediation testing should be performed to verify reduction in contaminant levels before taking down the containment. Prior to final clearance testing, the industrial hygienist will require that the negative air machines be turned off for a period of 24-48 hours.
- j) Complete remediation of all microbial organisms within a building cannot be guaranteed. It is important to note that the reported microbial levels are only reflective of conditions at the time of this test and that microbial populations can vary over time depending upon several conditions, including environmental factors such as temperature and relative humidity. Because of the nature of this environment, a complete remediation of this space is difficult. If significant mold growth reappears, or if the residents experience prolonged allergic-type health complaints, further investigation of the mold growth/water intrusion is recommended.

7.0 Limitations

This report has been prepared for the exclusive use of Atelier Architects and/or their agents. This service was performed in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made. Our conclusions and recommendations are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided by others, unless otherwise noted. Our observations and recommendations are based upon conditions readily visible at the site at the time of our site visit, and upon current industry standards. During F&R's non-invasive inspection, accessible areas were visually surveyed for the presence of suspected ACM, LBP, Light Ballasts, Mercury-containing components and Mold growth and water intrusion issues. Inaccessible areas, such as behind solid walls or above solid ceiling were not surveyed and therefore



suspected ACM may be present. Areas inspected for the above-referenced materials were limited to those designated by the client.

During this study, suspect material samples were analyzed for asbestos and/or lead-based paint. As with any similar survey of this nature, actual conditions exist only at the precise locations from which suspect samples were collected. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No other warranty, expressed or implied, is made.

Under this scope of services, F&R assumes no responsibility regarding response actions (e.g. O&M Plans, Encapsulation, Abatement, Removal, Notifications, etc.) initiated as a result of these findings. F&R assumes no liability for the duties and responsibilities of the Client with respect to compliance with these regulations. Compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements and should be performed by appropriately qualified and licensed-personnel, as warranted.

Because of the nature of this type of work (contamination reduction) and the difficulties involved in conducting remediation work, F&R cannot guarantee that the methods or recommendations described in this report will eliminate all contamination within the building, or prevent the return of contamination under favorable conditions. Since monitoring the performance of the remediation work is beyond F&R's scope of services, F&R also cannot be held responsible for the performance or execution of the remediation work.

Froehling & Robertson, Inc. by virtue of providing the services described in this report, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. The client agrees to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to public health, safety, or the environment. The contents of the report should not be construed in any way as a recommendation to purchase, sell, or develop the project site.

It is important to note that site conditions may fluctuate dependent upon a variety of factors including the weather and time of year. The data provided in this study is only indicative of conditions surveyed at the immediate time of the study. Professional services and scientific analyses have been performed, and recommendations prepared in accordance with customary principles in the fields of engineering and analytical science. This warranty is in lieu of all other warranties expressed or implied. The work performed in conjunction with this assessment and the data developed is intended as a description of available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does it warrant against extant, or future, conditions of a type or at a location not investigated.



APPENDIX A

ASBESTOS DOCUMENTATION, LABORATORY REPORTS



EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone: (301) 937-5700 Fax: (301) 937-5701 Email: beltsvillelab@emsl.com

Attn: **Alan Lederman**
Froehling & Robertson
7798 Waterloo Road
Jessup, MD 20794

Customer ID: FROE62
Customer PO:
Received: 03/11/09 9:20 AM
EMSL Order: 190902355

Fax: (443) 733-1015 Phone: (443) 733-1011
Project: **WAYNE PLACE, SE**

EMSL Proj:
Analysis Date: 3/12/2009
Report Date: 3/12/2009

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

Sample	Location	Appearance	Non-Asbestos			Asbestos
			% Fibrous	% Non-Fibrous	% Type	
107-01 <i>190902355-0001</i>	DRYWALL/1ST FL BATHROOM	White/Brown Fibrous Heterogeneous	10% Cellulose	90% Gypsum	None Detected	
			DW			
107-02 <i>190902355-0002</i>	JOINT COMPOUND/1ST FL BATHROOM	White/Brown Fibrous Heterogeneous	12% Cellulose	25% Mica 63% Non-fibrous (other)	None Detected	
			JC			
107-03 <i>190902355-0003</i>	DRYWALL/JOINT COMPOUND COMPOSITE/1ST FL BATHRM	White/Brown Fibrous Heterogeneous	20% Cellulose	50% Gypsum 10% Mica 20% Non-fibrous (other)	None Detected	
			DW/JC COMPOSITE			
107-04 <i>190902355-0004</i>	BLACK REMNANT FLOOR MASTIC/1ST FL LIVING RM	Brown/Black Fibrous Heterogeneous	25% Cellulose	75% Non-fibrous (other)	None Detected	
			REMNANT FLOOR MASTIC			
107-05 <i>190902355-0005</i>	12X12 TAN VFT/1ST FL. KITCHEN	Tan/Cream Fibrous Heterogeneous	2% Cellulose <1% Synthetic	60% Ca Carbonate 38% Non-fibrous (other)	None Detected	
			TILE			
107-06 <i>190902355-0006</i>	TAN FLOOR TILE MASTIC/1ST FL KITCHEN	Tan/Yellow Fibrous Heterogeneous	3% Cellulose 5% Synthetic	92% Non-fibrous (other)	None Detected	
			MASTIC FROM TILE			

Analyst(s) _____

George Malone (31)

Joe Centifonti, Laboratory Manager
or other approved signatory

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NVLAP Lab Code 200293-0



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EMSL Proj:
Analysis Date: 3/12/2009
Report Date: 3/12/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
107-07 <i>190902355-0007</i>	SKIM COAT PLASTER/1ST FL STAIRWELL	Yellow/White Non-Fibrous Heterogeneous	<1% Cellulose	25% Mica 75% Non-fibrous (other)	None Detected
			SKIM COAT		
107-08 <i>190902355-0008</i>	SCRATCH COAT PLASTER/1ST FL STAIRWELL	Brown/Beige Fibrous Heterogeneous	5% Cellulose	10% Mica 35% Non-fibrous (other) 50% Quartz	None Detected
			SCRATCH COAT		
107-09 <i>190902355-0009</i>	SLATE STEP/1ST FL STAIRWELL	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
			SLATE		
107-10 <i>190902355-0010</i>	CERAMIC FLOOR TILE MASTIC/1ST FL BATHROOM	Yellow/Brown Fibrous Heterogeneous	3% Cellulose 10% Synthetic	87% Non-fibrous (other)	None Detected
			CET TILE MASTIC		
107-11 <i>190902355-0011</i>	WATERPROOFIN G/1ST FL DINING RM	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
107-12 <i>190902355-0012</i>	12X12 RED LINOLEUM/3RD FL DINING	Red/White Non-Fibrous Heterogeneous	<1% Cellulose <1% Synthetic	25% Ca Carbonate 75% Non-fibrous (other)	None Detected
			LINO		
107-12A <i>190902355-0012A</i>	12X12 RED LINOLEUM/3RD FL DINING	Yellow/Clear Fibrous Heterogeneous	3% Cellulose 10% Synthetic	87% Non-fibrous (other)	None Detected
			MASTIC		

Analyst(s) _____

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or other approved signatory

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EMSL Proj:
Analysis Date: 3/12/2009
Report Date: 3/12/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
107-13 <i>190902355-0013</i>	12X12 WHITE LINOLEUM/3RD FL DINING	White/Beige Fibrous Heterogeneous	2% Cellulose <1% Synthetic	60% Ca Carbonate 38% Non-fibrous (other)	None Detected
			LINO		
107-13A <i>190902355-0013A</i>	12X12 WHITE LINOLEUM/3RD FL DINING	Yellow/Brown Fibrous Heterogeneous	5% Cellulose 10% Synthetic	85% Non-fibrous (other)	None Detected
			MASTIC		
107-14 <i>190902355-0014</i>	ROOFING ASPHALT	Silver/Black Fibrous Heterogeneous	30% Synthetic 10% Wollastonite	60% Non-fibrous (other)	None Detected
			ROOFING ASPHALT		
107-15 <i>190902355-0015</i>	ROOFING VAPOT NOILER	White/Black Fibrous Heterogeneous	10% Cellulose	55% Non-fibrous (other)	35% Chrysotile
			ROOFING VAPOR BARRIER		
107-16 <i>190902355-0016</i>	SKIM COAT WALL PLASTER/2ND FL STAIRWELL	Yellow/White Non-Fibrous Heterogeneous	<1% Cellulose	40% Non-fibrous (other) 60% Quartz	None Detected
			SKIM COAT		
107-17 <i>190902355-0017</i>	SCRATCH COAT WALL PLASTER/2ND FL STAIRWELL	Gray/Brown Non-Fibrous Heterogeneous	<1% Cellulose	40% Non-fibrous (other) 60% Quartz	None Detected
			SCRATCH COAT		
107-18 <i>190902355-0018</i>	SKIM COAT WALLPLASTER/3 RD FL STAIRWELL	White/Yellow Non-Fibrous Heterogeneous	<1% Cellulose	25% Mica 75% Non-fibrous (other)	None Detected
			SKIM COAT		

Analyst(s) _____

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Customer ID: FROE62
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Received: 03/11/09 9:20 AM
EMSL Order: 190902355

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Project: **WAYNE PLACE, SE**

EMSL Proj:
Analysis Date: 3/12/2009
Report Date: 3/12/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
107-19 <i>190902355-0019</i>	SCRATCH COAT WALL PLASTER/3RD FL STAIRWELL	Gray/Brown Fibrous Heterogeneous	5% Cellulose	5% Mica 35% Non-fibrous (other) 55% Quartz	None Detected
			SCRATCH COAT		
107-20 <i>190902355-0020</i>	WIRING INSULATION/ATT IC VOID	Brown/Black Fibrous Heterogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
			WIRING INS		
107-21 <i>190902355-0021</i>	SHEETROCK/2N D FL N. SIDE DINING RM	White Fibrous Heterogeneous	5% Glass	95% Gypsum	None Detected
			SHEET ROCK		
107-22 <i>190902355-0022</i>	JOINT COMPOUND/2ND FL N. SIDE DINING RM	White Fibrous Heterogeneous	5% Cellulose	25% Mica 70% Non-fibrous (other)	None Detected
			JC		
107-23 <i>190902355-0023</i>	JOINT COMPOUND COMPOSITE/2ND FL N. SIDE DINING RM	White/Brown Fibrous Heterogeneous	15% Cellulose	65% Gypsum 10% Mica 10% Non-fibrous (other)	None Detected
			SHEET ROCK		
107-24 <i>190902355-0024</i>	SHEETROCK/3R D FL. N. SIDE DINING RM	White/Brown Fibrous Heterogeneous	15% Cellulose 10% Glass	75% Gypsum	None Detected
			SHEET ROCK		

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EMSL Proj:
Analysis Date: 3/12/2009
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Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
107-25 190902355-0025	JOINT COMPOUND/3RD FL N. SIDE DINING RM	White/Brown Fibrous Heterogeneous	5% Cellulose	25% Mica	None Detected
			JC	70% Non-fibrous (other)	
107-26 190902355-0026	SHEETROCK- JOINT COMPOUND COMPOSITE/3RD FL. N. SIDE	White/Brown Fibrous Heterogeneous	15% Cellulose 10% Glass	45% Gypsum 10% Mica	None Detected
			SHEET ROCK	20% Non-fibrous (other)	
107-27 190902355-0027	DOOR INSULATION/2ND FL. N. SIDE APT.	Black/Brown Fibrous Heterogeneous	90% Cellulose	10% Non-fibrous (other)	None Detected
			DOOR INS		
107-28 190902355-0028	WINDOW CAULK/REAR OF BLDG	Gray/White Fibrous Heterogeneous	2% Cellulose	98% Non-fibrous (other)	None Detected
			WINDOW CAULK		
107-29 190902355-0029	WOOD FLOOR UNDERLAYMENT /2ND FL N. SIDE BEDRM	Brown/Gray Fibrous Heterogeneous	85% Cellulose	15% Non-fibrous (other)	None Detected
			WOOD FLOOR UNDERLAYMENT		

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NVLAP Lab Code 200293-0



Chain of Custody

Asbestos Lab Services

EMSL Analytical, Inc.
10768 Baltimore
Avenue
Beltsville, MD 20705

Phone: (301) 937-5700
Fax: (301) 937-5701
<http://www.emsl.com>

Please print all information legibly.

Company:	Froehling & Robertson	Bill To:	Froehling & Robertson
Address 1:	7798 Waterloo Road	Address 1:	7798 Waterloo Road
Address 2:		Address 2:	
City, State:	Jessup, Maryland	City, State:	Jessup, Maryland
Zip/Post Code:	20794	Zip/Post Code:	20794
Country:		Country:	
Contact Name:	Alan Lederman	Attn:	Alan Lederman
Phone:	443-733-1011	Phone:	443-733-1011
Fax:	443-733-1015	Fax:	443-733-1015
Email:	alederman@fandr.com	Email:	alederman@fandr.com
EMSL Rep:	Sheryl Steinmetz	P.O. Number:	
Project Name/Number: W300000 Wayne Place, SE			

MATRIX			TURNAROUND			
<input type="checkbox"/> Air	<input type="checkbox"/> Soil	<input type="checkbox"/> Micro-Vac	<input type="checkbox"/> 3 Hours	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> Same Day or 12 Hours*	<input type="checkbox"/> 24 Hours (1 day)
<input checked="" type="checkbox"/> Bulk	<input type="checkbox"/> Drinking Water		<input checked="" type="checkbox"/> 48 Hours (2 days)	<input type="checkbox"/> 72 Hours (3 days)	<input type="checkbox"/> 96 Hours (4 days)	<input type="checkbox"/> 120 Hours (5 days)
<input type="checkbox"/> Wipe	<input type="checkbox"/> Wastewater		<input type="checkbox"/> 144+ hours (6-10 days)			

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat, please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.

*12 hours (must arrive by 11:00a.m. Mon -Fri.), Please Refer to Price Quote

PCM - Air <input type="checkbox"/> NIOSH 7400(A) Issue 2: August 1994 <input type="checkbox"/> OSHA w/TWA <input type="checkbox"/> Other:	TEM Air <input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II	TEM WATER <input type="checkbox"/> EPA 100.1 <input type="checkbox"/> EPA 100.2 <input type="checkbox"/> NYS 198.2
PLM - Bulk <input checked="" type="checkbox"/> EPA 600/R-93/116 <input type="checkbox"/> EPA Point Count <input type="checkbox"/> NY Stratified Point Count <input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1 <input type="checkbox"/> NIOSH 9002: <input type="checkbox"/> EMSL Standard Addition:	TEM BULK <input type="checkbox"/> Drop Mount (Qualitative) <input type="checkbox"/> Chatfield SOP - 1988-02 <input type="checkbox"/> TEM NOB (Gravimetric) NYS 198.4 <input type="checkbox"/> EMSL Standard Addition:	TEM Microvac/Wipe <input type="checkbox"/> ASTM D 5755-95 (quantative method) <input type="checkbox"/> Wipe Qualitative
SEM Air or Bulk <input type="checkbox"/> Qualitative <input type="checkbox"/> Quantitative	PLM Soil <input type="checkbox"/> EPA Protocol Qualitative <input type="checkbox"/> EPA Protocol Quantitative <input type="checkbox"/> EMSL MSD 9000 Method fibers/gram	XRD <input type="checkbox"/> Asbestos <input type="checkbox"/> Silica NIOSH 7500 OTHER <input type="checkbox"/>



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<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) 107-01 - 107-29

Total Samples #: 29

Relinquished: (M) Date: 3/11/09

Time: 9:20am WJW

Received: (M) Date: 3/11/09

Time: 9:20am WJW

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
107-01	Drywall/1 st Fl. Bathroom	
107-02	Joint Compound/1 st Fl. Bathroom	
107-03	Drywall/Joint Compound Composite/1 st Fl. Bathroom	
107-04	Black Remnant Floor Mastic/1 st Fl. Living Rm.	
107-05	12"x12" Tan VFT/1 st Fl. Kitchen	
107-06	Tan Floor Tile Mastic/1 st Fl. Kitchen	
107-07	Skim Coat Plaster/1 st Fl. Stairwell	
107-08	Scratch Coat Plaster/1 st Fl. Stairwell	
107-09	Slate Step/1 st Fl. Stairwell	
107-10	Ceramic Floor Tile Mastic/1 st Fl. Bathroom	
107-11	Waterproofing/1 st Fl. Dining Rm.	
107-12	12"x12" Red Linoleum/3 rd Floor Dining	
107-13	12"x12" White Linoleum/3 rd Fl. Dining	
107-14	Roofing Asphalt	



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<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) _____ - _____

Total Samples #: _____

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
107-15	Roofing Vapor Barrier	
107-16	Skim Coat Wall Plaster / 2 nd Fl. Stairwell	
107-17	Scratch Coat Wall Plaster / 2 nd Fl. Stairwell	
107-18	Skim Coat Wall Plaster / 3 rd Fl. Stairwell	
107-19	Scratch Coat Wall Plaster / 3 rd Fl. Stairwell	
107-20	Wiring Insulation / Attic Void	
107-21	Sheetrock / 2 nd Fl. N. Side Dining Rm.	
107-22	Joint Compound / 2 nd Fl. N. Side Dining Rm.	
107-23	Sheetrock - Joint Compound Composite / 2 nd Fl. N. Side Dining Rm.	
107-24	Sheetrock / 3 rd Fl. N. Side Dining Rm.	
107-25	Joint Compound / 3 rd Fl. N. Side Dining Rm.	
107-26	Sheetrock - Joint Compound Composite / 3 rd Fl. N. Side Dining Rm.	
107-27	Door Insulation / 2 nd Fl. N. Side Apt.	
107-28	Window Caulk / Rear of Bldg.	



APPENDIX B

XRF DATA TABLES EXPLANATION OF XRF DATA

Reading No	Area	Component	Substrate	Condition	Color	Unit	Action Level	PbC	PbC Error	Lead Based Paint Y/N
1		CALIBRATE					0.7	0.9	0.1	N/A
2		CALIBRATE					0.7	1	0.3	N/A
3		CALIBRATE					0.7	1.1	0.4	N/A
4	2nd Floor North Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
5	2nd Floor North Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
6	2nd Floor North Side Apt.	Floor	Wood	Fair	White	mg/cm^2	0.7	0.01	0.05	NO
7	2nd Floor North Side Apt.	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
8	2nd Floor North Side Apt.	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
9	2nd Floor North Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
10	2nd Floor North Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
11	2nd Floor North Side Apt.	Wall	Sheetrock	Fair	Yellow	mg/cm^2	0.7	0	0.02	NO
12	2nd Floor North Side Apt.	Baseboard	Wood	Fair	Yellow	mg/cm^2	0.7	0.01	0.05	NO
13	2nd Floor North Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
14	2nd Floor North Side Apt.	Wall	Sheetrock	Fair	Blue	mg/cm^2	0.7	0	0.02	NO
15	2nd Floor North Side Apt.	Baseboard	Wood	Fair	Blue	mg/cm^2	0.7	0	0.02	NO
16	2nd Floor North Side Apt.	Window Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
17	2nd Floor North Side Apt.	Floor Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.12	0.36	NO
18	2nd Floor North Side Apt.	Wall Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.06	0.16	NO
19	2nd Floor North Side Apt.	Closet Shelf	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
20	2nd Floor Stairwell	Wall	Plaster	Fair	Yellow	mg/cm^2	0.7	0	0.02	NO
21	2nd Floor Stairwell	Baseboard	Plaster	Fair	Brown	mg/cm^2	0.7	0.01	0.02	NO
22	2nd Floor Stairwell	Stair Stringer	Concrete	Fair	Brown	mg/cm^2	0.7	0.01	0.07	NO
23	2nd Floor Stairwell	Stair Baluster	Metal	Fair	Brown	mg/cm^2	0.7	0.5	0.3	NO
24	2nd Floor Stairwell	Stair Baluster	Metal	Fair	Brown	mg/cm^2	0.7	1.1	0.4	YES
25	2nd Floor Stairwell	Stair Rail	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
26	2nd Floor Stairwell	Ceiling	Plaster	Fair	White	mg/cm^2	0.7	0	0.02	NO
27	2nd Floor Stairwell	Baseboard	Wood	Fair	Brown	mg/cm^2	0.7	0.4	0.3	NO
28	2nd Floor South Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
29	2nd Floor South Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
30	2nd Floor South Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
31	2nd Floor South Side Apt.	Floor	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
32	2nd Floor South Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
33	2nd Floor South Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO

Reading No	Area	Component	Substrate	Condition	Color	Unit	Action Level	PbC	PbC Error	Lead Based Paint Y/N
34	1st Floor South Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
35	1st Floor South Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
36	1st Floor South Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
37	1st Floor South Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.17	NO
38	1st Floor South Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.03	NO
39	1st Floor South Side Apt.	Door	Metal	Fair	White	mg/cm^2	0.7	0	0.02	NO
40	1st Floor South Side Apt.	Door Frame	Metal	Fair	White	mg/cm^2	0.7	0	0.02	NO
41	Foyer	Interior Door Frame	Wood	Poor	Brown	mg/cm^2	0.7	0.6	0.2	NO
42	Exterior Front Entrance	Exterior Door Frame	Wood	Poor	Brown	mg/cm^2	0.7	2.7	2	YES
43	3rd Floor N. Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
44	3rd Floor N. Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
45	3rd Floor N. Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
46	3rd Floor N. Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
47	3rd Floor N. Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
48	3rd Floor N. Side Apt.	Window Sill	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
49	3rd Floor N. Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
50	3rd Floor N. Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
51	3rd Floor N. Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
52	3rd Floor N. Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
53	3rd Floor N. Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
54	3rd Floor Stairwell Landing	Ladder	Metal	Fair	Brown	mg/cm^2	0.7	0.21	0.18	NO
55	3rd Floor Stairwell Landing	Ceiling	Plaster	Fair	White	mg/cm^2	0.7	0	0.02	NO
56		CALIBRATE					0.7	1.2	0.4	N/A
57		CALIBRATE					0.7	1	0.3	N/A
58		CALIBRATE					0.7	1	0.3	N/A



EXPLANATION OF XRF DATA

The table header displays Inspector's name and license number, XL-309 serial number, the job site location, and sampling date.

<u>Column</u>	<u>Description</u>
Reading No	Consecutive sample numbers assigned by the instrument at testing time.
Site	Testing site location(s).
Component	The major building component being tested.
Substrate	The type of material underlying the painted coating.
Color	Color of the painted or varnished surface.
Result	Result of the test: NEG = negative POS = positive NULL = incomplete test / reading error
	<i>There is no inconclusive range for the Niton XL-309.</i>
Action Level	Concentration of lead defined as lead-based paint.
Pbc	Combined L and K-Shell x-ray readings of lead level.



APPENDIX C

SITE PHOTOGRAPHS



1. View of mold growth on sheetrock walls in 1st Floor South Side Apartment Living Room.



2. View of mold growth on sheetrock walls and wood wall studs in 1st Floor South Side Apartment Living Room.



3. View of thermostat with mercury switches and mold growth on sheetrock walls in the Laundry Room.



4. View of mold growth on sheetrock ceiling and wood ceiling joists in the Laundry Room.



5. View of mold growth on wood floors in 2nd Floor South Side Apartment Bedroom.



6. View of mold growth on ceiling joists in 2nd Floor South Side Apartment Bathroom.



7. View of exterior brown wood door frame with lead-based paint.



8. View of mold growth on sheetrock wall in 2nd Floor South Side Apartment Hallway.



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LIMITED HAZARDOUS MATERIALS SURVEY REPORT

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APPENDICES

Appendix A – Asbestos Documentation, Laboratory Reports

Appendix B – XRF Data Table
Explanation of XRF Data

Appendix C – Site Photographs



1.0 Introduction

As authorized by Atelier Architects, P.L.L.C. (Client), Froehling & Robertson, Inc. (F&R) personnel performed a limited non-invasive hazardous materials survey of 117 Wayne Place, SE on March 12th, 2009 in support of proposed renovation activities at the site.

The site consists of a three-story vacant multi-family residential building which contains four (4) apartment units and a laundry room and storage room. Typical interior finishes consist of sheetrock and plaster walls, 12"x12" vinyl floor tiles, and linoleum sheeting.

The scope of the hazardous materials survey for this building consisted of the following items only:

- Non-invasive Survey for suspect asbestos-containing materials (ACMs)
- Screening of surface coatings that may contain lead-based paint (LBP)
- Non-invasive inventory of suspect PCB-containing light ballasts and mercury-containing components
- Visual survey for mold growth and moisture intrusion

2.0 Asbestos-Containing Material (ACM)

2.1 Methodology

For this project, a non-invasive visual survey and sampling for suspect ACMs were conducted at the above referenced site.

All samples were collected by an Environmental Protection Agency-Asbestos Hazard Emergency Response Act (EPA-AHERA) accredited Asbestos Inspector and submitted to EMSL Analytical, Inc. (EMSL) located in Beltsville, Maryland. EMSL is accredited for the analysis of bulk asbestos samples by the National Voluntary Laboratory Accreditation Program (NVLAP). A total of thirty-five (35) samples were collected and analyzed using Polarized Light Microscopy (PLM) following EPA Method 600/R-93/116.

2.2 Results (Refer also to Appendix A for Laboratory Reports)

TABLE 1 ACM LABORATORY RESULTS			
Sample #	Sample Location	Sample Type	Analytical Results
117-01	1 st Floor North Side Apt. Living Room	Black Floor Tile Mastic	No Asbestos Detected
117-02	1 st Floor North Side Apt. Kitchen	12"x12" Tan Vinyl Floor Tile	No Asbestos Detected
117-02A	1 st Floor North Side Apt. Kitchen	Floor Tile Mastic	No Asbestos Detected
117-03	Rear Stairwell	Stair Tread Mastic	No Asbestos Detected
117-04	Rear Stairwell	12"x12" White Linoleum	No Asbestos Detected
117-04A	Rear Stairwell	Linoleum Mastic	No Asbestos Detected



**TABLE 1
ACM LABORATORY RESULTS**

Sample #	Sample Location	Sample Type	Analytical Results
117-04B	Rear Stairwell	2 nd Layer Linoleum	No Asbestos Detected
117-04C	Rear Stairwell	2 nd Layer Linoleum Mastic	No Asbestos Detected
117-05	Foyer	Stone Pattern Linoleum	No Asbestos Detected
117-05A	Foyer	Linoleum Mastic	No Asbestos Detected
117-06	1 st Floor North Side Apartment	Door Insulation	No Asbestos Detected
117-07	2 nd Floor South Side Apartment	2 nd Layer Linoleum	No Asbestos Detected
117-07A	2 nd Floor South Side Apartment	2 nd Layer Linoleum Mastic	No Asbestos Detected
117-08	2 nd Floor North Side Apartment	Pink Linoleum	No Asbestos Detected
117-09	2 nd Floor North Side Apartment	2 nd Layer White Linoleum	No Asbestos Detected
117-09A	2 nd Floor North Side Apartment	2 nd Layer White Linoleum Mastic	No Asbestos Detected
117-10	Rear Exterior	Exterior Window Caulk	No Asbestos Detected
117-11	Laundry Room	Exterior Door Caulk	No Asbestos Detected
117-12	1 st Floor Stairwell Landing	Black Surfacing Material	No Asbestos Detected
117-13	1 st Floor Stairwell Landing	Skim Coat Wall Plaster	No Asbestos Detected
117-14	1 st Floor Stairwell Landing	Scratch Coat Wall Plaster	No Asbestos Detected
117-15	2 nd Floor Stairwell Landing	Skim Coat Wall Plaster	No Asbestos Detected
117-16	2 nd Floor Stairwell Landing	Scratch Coat Wall Plaster	No Asbestos Detected
117-17	2 nd Floor Stairwell Landing	Skim Coat Wall Plaster	No Asbestos Detected
117-18	2 nd Floor Stairwell Landing	Scratch Coat Wall Plaster	No Asbestos Detected
117-19	2 nd Floor North Side Apartment Living Room	Sheetrock	No Asbestos Detected
117-20	2 nd Floor North Side Apartment Living Room	Joint Compound	No Asbestos Detected
117-21	2 nd Floor North Side Apartment Living Room	Sheetrock/Joint Compound Composite	No Asbestos Detected
117-22	1 st Floor North Side Apartment Bathroom	Sheetrock	No Asbestos Detected
117-23	1 st Floor North Side Apartment Bathroom	Joint Compound	No Asbestos Detected
117-24	1 st Floor North Side Apartment Bathroom	Sheetrock/Joint Compound Composite	No Asbestos Detected
117-25	Laundry Room	Sheetrock	No Asbestos Detected
117-26	Laundry Room	Joint Compound	No Asbestos Detected
117-27	Laundry Room	Sheetrock/Joint Compound Composite	No Asbestos Detected



**TABLE 1
ACM LABORATORY RESULTS**

Sample #	Sample Location	Sample Type	Analytical Results
117-28	1 st Floor North Side Apartment Bathroom	Ceramic Tile Mastic	No Asbestos Detected

2.3 Conclusions and Recommendations

None of the materials sampled were determined to be asbestos-containing through laboratory analysis. F&R offers the following observations in regards to our survey:

- Areas behind plaster walls and ceilings were inaccessible and could not be visually surveyed for ACM. F&R made every attempt to inspect areas behind existing wall penetrations and did not observe any ACM in these areas; however ACM including, but not limited to, thermal pipe insulation and thermal pipe fitting insulation may exist in those locations.
- The roof was not accessed for asbestos as part of this investigation. The cement roofing shingles and associated roofing felt should be assumed to be asbestos-containing until sampling determines otherwise.

2.4 Applicable Regulations

EPA / NESHAP Regulations for Asbestos Containing Materials

The U.S. Environmental Protection Agency promulgated the National Emission Standards for Hazardous Air Pollutants (NESHAP) [40 CFR Part 61], which addresses the application, removal, and disposal of ACMs. Under NESHAP the following categories are defined for ACMs:

Friable - When dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

Non-friable - When dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

Category I Non-friable ACM - Packings, gaskets, resilient floor coverings, and asphalt roofing products containing more than 1% asbestos.

Category II Non-friable ACM – Any material, excluding Category I Non-friable ACM, containing more than 1% asbestos.

Regulated Asbestos Containing Material (RACM) – One of the following:

1. Friable ACM
2. Category I Non-friable ACM that has become friable.
3. Category I Non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
4. Category II Non-friable ACM that has a high probability of becoming, or has become, friable by the forces expected to act on the material in the course of demolition or renovation operations.



Under NESHAP, the following actions are required:

1. Prior to the commencement of demolition or renovation activities, the building owner must inspect the affected facility or part of the facility where the demolition or renovation activities will occur for the presence of asbestos.
2. Remove all RACM from the facility before any activity begins that would break up, dislodge, or similarly disturb the material or preclude access for subsequent removal.
3. RACM need not be removed if:
 - a) It is Category I non-friable ACM that is not in poor condition.
 - b) It is on a facility component that is encased in concrete or other similar material and is adequately wet whenever exposed.
 - c) It was not accessible for testing and was therefore not discovered until after demolition began and because of the demolition the material cannot be safely removed.
 - d) It is Category II non-friable ACM and the probability is low that the material will become crumbled, pulverized, or reduced to powder during demolition.

3.0 Lead-Based Paint

3.1 Methodology

A lead-based paint (LBP) screening was performed to test a representative number of painted surfaces for the presence of lead. The testing was conducted by using a Niton XL-309 X-Ray Fluorometer (XRF) Lead Paint Analyzer. The XRF contains a small radioisotopic source and operates on the principle of x-ray fluorescence, whereby lead atoms in paint are stimulated to emit characteristic x-rays, which are then detected by the instrument. The XRF can measure surface or non-surface concentrations of lead with 95% accuracy at the District of Columbia action level of 0.7 mg/cm². Levels of lead are reported in units of milligrams per square centimeter (mg/cm²). The XRF is able to accurately detect as little as 0.1 mg/cm² of lead. The XRF classifies painted surfaces as “positive” or “negative” for lead content based on the District of Columbia action level (0.7 mg/cm²) and the performance characteristics of the XRF.

Positive: Lead is present at or above the District of Columbia action level of 0.7 mg/cm² on *one or more* of the components.

Negative: Lead is not present at or above the District of Columbia action level of 0.7 mg/cm² on any of the components.

The survey was generally conducted using the methodology recommended by the U.S. EPA/Department of Housing and Urban Development (HUD). Modifications were made where appropriate for this project. It is important to note that this survey was not a comprehensive, surface-by-surface evaluation, but rather a screening survey of major painted components, which may contain LBP.

3.2 Results

A total of sixty-six (66) readings were taken as part of this survey. Based on the results of this survey the following surfaces should be assumed to contain LBP (surfaces containing lead concentrations above the District of Columbia action level of 0.7 milligrams per square centimeter):



- Brown Exterior Wood Door Frame

The remainder of the painted surfaces within the building should be assumed to contain lead-containing paint (paint with detectable lead concentrations but below the District of Columbia action level). Reference the attached XRF Data Table for a complete list of sampled components and results.

3.3 Recommendations

It is important to note that OSHA, under its Lead in Construction standard (29 CFR 1926.62, Paragraph d), does not define acceptable levels of lead in paint at which no exposure to airborne lead (above the action level) would be expected. Rather, OSHA defines airborne concentrations, and references specific types of work practices and operations from which a lead hazard may be generated. Environmental and personnel monitoring should be conducted during any removal/demolition process (as appropriate) to verify that actual personal exposures are below the Permissible Exposure Limit (PEL). Under OSHA requirements, the contractor performing the work will be required to conduct this monitoring and follow all of the other requirements found under 29 CFR 1926.62. Based on the findings of this survey, F&R recommends that all painted surfaces be assumed to contain LBP or lead-containing paint.

In accordance with the *District of Columbia Lead-Based Paint Abatement and Control Act of 1996* and the EPA and HUD *Residential Lead-Based Paint Hazard Reduction Act of 1992 (Title X)*, a lead-based paint inspection and risk assessment should be conducted according to EPA/HUD and District of Columbia protocols by a District of Columbia licensed Lead Risk Assessor prior to occupancy of the building by children under the age of 8. If the lead-based paint inspection and risk assessment shows that lead-based paint hazards exist at the site, than a lead-based paint management plan should be prepared and implemented by a District of Columbia licensed Lead Risk Assessor.

Additionally, according to District of Columbia and EPA/HUD regulations any lead paint “abatement” defined as work done to permanently eliminate a lead-based paint hazard in a facility occupied by children under the age of 8, is to be performed by a District of Columbia licensed Lead Paint Abatement Contractor. This does not include renovation, remodeling, landscaping, or other activities, when such activities are not designated to permanently eliminate lead-based paint hazards, but, instead are designed to repair, restore, or remodel a given structure or dwelling, even though these activities may incidentally result in a reduction or elimination of lead-based paint hazards.

3.4 Applicable Regulations

OSHA

Positive and negative results are based on the US Department of Housing and Urban Development Guidelines. It is important to note that if a component is negative based on the HUD standard, it may still contain concentrations of lead in the paint, which when disturbed, may generate lead dust greater than the maximum exposure concentration of 30 micrograms per cubic millimeter established by the OSHA “Lead Exposure in Construction Rule (29 CFR 1926.62).” The OSHA standard gives no guidance on acceptable levels of lead in paint at which no exposure to airborne lead (above the action level) would be expected. Rather, OSHA defines airborne concentrations, and references specific types of work practices and



operations from which a lead hazard may be generated (reference 29 CFR 1926.62, section d). Environmental and personnel monitoring should be conducted during any removal or demolition process (as appropriate) to determine actual personal exposure. This monitoring information can be used to determine the levels of personnel protection and environmental controls required for work involving specific removal/demolition processes on specific structures. Under OSHA requirements, the Contractor performing the work will be required to conduct this monitoring. It is important to note that environmental controls will vary dependent upon the content of lead in paint, the process used to remove it, duration of the work, and the amount of paint to be removed.

EPA/HUD

Title X requires the following for lead-based paint activities that are required when completing housing rehabilitation work valued between \$5,001 and \$25,000 when Federal Assistance is involved:

- Disclosure to tenants of lead-based paint present in the building
- Paint testing of surfaces to be disturbed or presumption that the surface contains lead-based paint
- Lead-based paint risk assessment
- Lead-based paint hazard control
- Use of lead-safe work practices
- Tenant notices of planned lead-based paint disturbance
- On-going lead-based paint management
- Clearance testing after disturbance of areas with lead-based paint

District of Columbia

The *District of Columbia Lead-Based Paint Abatement and Control Act of 1996* requires that all lead-based paint abatement in facilities occupied by children under the age of 8 are to be conducted by District of Columbia licensed Lead Paint Abatement Contractors. Additionally, lead-based paint inspections and risk assessments/management plan completed in these facilities are to be conducted by District of Columbia licensed Lead Inspectors and Risk Assessors respectively.

4.0 PCBs

4.1 Methodology

Light ballasts are the electrical components attached to fluorescent light fixtures usually found under a metal cover plate. Prior to 1978, ballasts were commonly manufactured with polychlorinated biphenyls (PCBs). PCBs were used in fluorescent light ballasts because of their good electrical insulating capabilities. Ballasts made after 1978 are usually marked "Non-PCB."

4.2 Results

F&R did not observe any fluorescent light ballasts at the site.



5.0 Mercury-Containing Components

5.1 Methodology

Mercury is used in several building components including fluorescent lamps and thermostats. In fluorescent lighting, mercury-containing dust forms from the mercury vapor found within the lamps.

5.2 Results

During this survey, F&R personnel observed two (2) presumed mercury-containing thermostats; one (1) located in the laundry room and one (1) located in the 1st Floor North Side Apartment. No fluorescent lamps were observed at the site.

5.3 Findings and Recommendations

The mercury-containing thermostats should be removed and disposed of/recycled according to Federal and District of Columbia guidelines by an appropriately licensed/certified contractor if it is to be impacted by renovation activities.

6.0 Limited Mold and Water Intrusion Study

6.1 Methodology

F&R visually surveyed the building for evidence of mold and water damage and collected moisture readings from various surfaces. Moisture contents in suspect water-damaged materials were measured using a Protimeter® MMS Moisture Meter. The Protimeter was used in the “measure mode” for this survey. Using this mode measurements are taken by inserting the pins of the moisture probe into the material being tested. For wood substrates, the moisture percentage is expressed as “% Moisture Content (MC)”; for other materials this number is expressed as “% Wood Moisture Equivalent (WME)”. In general, %MC or %WME values of less than 17 are considered “dry”, values greater than or equal to 17 but less than 20 are considered “at risk” for moisture damage, and values of 20 or greater are considered “wet”.

6.2 Results

Below is a summary of the mold growth and water intrusion issues observed by F&R:

1st Floor North Side Apartment

- Mold was observed on the bottom 1’ of the sheetrock wall along the east wall of the living room as well as an area of approximately 5 square feet on the sheetrock wall in the southeast corner. The mold growth was not observed on the wood studs underneath. “Dry” moisture meter readings were recorded in this area.
- Mold was observed on approximately 5 square feet of the sheetrock wall in the southwest corner of the dining room. The mold growth was not observed on the wood studs underneath. “Dry” moisture meter readings were recorded in this area.



- Mold was observed on the sheetrock walls of the closet as well as the upper 4' of the sheetrock walls and the sheetrock ceiling in the bathroom. The mold growth was also observed on the wood wall studs. "Dry" moisture meter readings were recorded in this area.
- Mold was observed on the bottom 2' of the sheetrock walls in the bedroom as well as the sheetrock walls in the bedroom closet. The mold growth was not observed on the wood wall studs. "Dry" moisture meter readings were recorded in this area.

1st Floor South Side Apartment

- Areas of mold growth were observed on the wood floors throughout this apartment. "Dry" moisture meter readings were recorded on the floor.
- Approximately 25 square feet of mold growth was observed on the sheetrock wall in the south side of the living room. The mold growth was not observed on the wood wall studs. "Dry" moisture meter readings were recorded in this area.

2nd Floor North Side Apartment

- Areas of mold growth were observed on the wood floors throughout this apartment. "Dry" moisture meter readings were recorded on the floor.
- Mold growth was observed throughout the sheetrock ceiling in the bathroom. "Dry" moisture meter readings were recorded in this area.

2nd Floor South Side Apartment

- Areas of mold growth were observed on the wood floors throughout this apartment. "Dry" moisture meter readings were recorded on the floor.
- Mold growth was observed throughout the sheetrock ceiling in the bathroom. "Dry" moisture meter readings were recorded in this area.

Laundry Room

- Mold was observed on the bottom 4' of sheetrock walls as well as the sheetrock ceiling throughout the laundry room. This mold growth was also observed on the wood wall studs. "Wet" moisture readings were recorded on the walls and ceiling in this area.

Basement Storage Area

- Mold growth was observed on the wood ceiling deck.

6.3 Findings and Recommendations

- a) Based upon our observations, F&R recommends drying/mold remediation of all impacted areas by a qualified contractor prior to tenant occupancy and installation of new finishes. F&R also recommends consultation with a qualified building engineer to identify and correct all potential moisture intrusion sources into the building.
- b) F&R recommends that remediation activities be performed in general accordance with the guidelines described in EPA's March 2001 document "Mold Remediation in Schools and Commercial Buildings". Due to the visible fungal growth and/or moisture damage in the affected areas and widespread nature of the contamination observed, F&R recommends following the procedures given in Table 2: "Guidelines for Remediating Building Materials with Mold Growth Caused by Clean Water" for large areas greater than 100 square feet.



- c) Pressure differential should be -0.02 inches of water gauge between the outside and inside of containment. Provide HEPA-filtered local exhaust ventilation (negative air machine) directly adjacent to the areas being cleaned. Continuously maintain negative pressure and HEPA filtration inside the containment during remediation activities and until 24-48 hours prior to clearance sampling, as directed by the Industrial Hygienist. **Keep plastic barriers in place until the Industrial Hygienist grants clearance.** All work areas should remain sealed and off-limits to all but essential remediation personnel until after completion of post-remediation testing.
- d) F&R recommends removal of sheetrock and insulation (if present) four feet up all of the walls in impacted areas. The Contractor should have a Protimeter or similar meter to verify that all wet/moist sheetrock is removed as part of this process. Mold present on solid wood surfaces such as wood framing and floors may require sanding of the surface along with application of a wide-acting antimicrobial agent. This will need to be evaluated during the remediation by a qualified contractor or engineer. Metal/PVC pipes and support structures should be cleaned and decontaminated by damp-wiping, HEPA vacuuming and brushing.
- e) In conjunction with the procedures described above, F&R also recommends a thorough HVAC system cleaning by a qualified contractor after all remediation work is completed. Any cleaning of the ducts and the HVAC unit should be in accordance with the National Air Duct Cleaners Association (NADCA) guidelines.
- f) A moisture meter should be used in conjunction with this remediation to verify that all areas with moisture intrusion (framing, sheetrock walls, sub floor) have been removed or dried.
- g) All workers performing mold remediation should wear proper personal protective equipment (PPE) including HEPA filtered respirators and disposable clothing in accordance with all appropriate Occupational Health and Safety Administration (OSHA) standards.
- h) Due to the complexity of this project, it is recommended that the Owner, the remediation contractor and the Industrial Hygiene consultant meet to review the scope of work prior to beginning any remediation.
- i) Post-remediation testing should be performed to verify reduction in contaminant levels before taking down the containment. Prior to final clearance testing, the industrial hygienist will require that the negative air machines be turned off for a period of 24-48 hours.
- j) Complete remediation of all microbial organisms within a building cannot be guaranteed. It is important to note that the reported microbial levels are only reflective of conditions at the time of this test and that microbial populations can vary over time depending upon several conditions, including environmental factors such as temperature and relative humidity. Because of the nature of this environment, a complete remediation of this space is difficult. If significant mold growth reappears, or if the residents experience prolonged allergic-type health complaints, further investigation of the mold growth/water intrusion is recommended.

7.0 Limitations

This report has been prepared for the exclusive use of Atelier Architects and/or their agents. This service was performed in accordance with generally accepted environmental practices. No other warranty, expressed or implied, is made. Our conclusions and recommendations are based, in part, upon information provided to us by others and our site observations. We have not verified the completeness or accuracy of the information provided by others, unless otherwise noted. Our observations and recommendations are based upon conditions readily visible at the site at the time of our site visit, and upon current industry standards. During F&R's non-invasive inspection, accessible areas were visually surveyed for the presence of suspected ACM, LBP,



Light Ballasts, Mercury-containing components and Mold growth and water intrusion issues. Inaccessible areas, such as behind solid walls or above solid ceiling were not surveyed and therefore suspected ACM may be present. Areas inspected for the above-referenced materials were limited to those designated by the client.

During this study, suspect material samples were analyzed for asbestos and/or lead-based paint. As with any similar survey of this nature, actual conditions exist only at the precise locations from which suspect samples were collected. Certain inferences are based on the results of this sampling and related testing to form a professional opinion of conditions in areas beyond those from which the samples were collected. No other warranty, expressed or implied, is made.

Under this scope of services, F&R assumes no responsibility regarding response actions (e.g. O&M Plans, Encapsulation, Abatement, Removal, Notifications, etc.) initiated as a result of these findings. F&R assumes no liability for the duties and responsibilities of the Client with respect to compliance with these regulations. Compliance with regulations and response actions are the sole responsibility of the Client and should be conducted in accordance with local, state, and/or federal requirements and should be performed by appropriately qualified and licensed-personnel, as warranted.

Because of the nature of this type of work (contamination reduction) and the difficulties involved in conducting remediation work, F&R cannot guarantee that the methods or recommendations described in this report will eliminate all contamination within the building, or prevent the return of contamination under favorable conditions. Since monitoring the performance of the remediation work is beyond F&R's scope of services, F&R also cannot be held responsible for the performance or execution of the remediation work.

Froehling & Robertson, Inc. by virtue of providing the services described in this report, does not assume the responsibility of the person(s) in charge of the site, or otherwise undertake responsibility for reporting to any local, state, or federal public agencies any conditions at the site that may present a potential danger to public health, safety, or the environment. The client agrees to notify the appropriate local, state, or federal public agencies as required by law, or otherwise to disclose, in a timely manner, any information that may be necessary to prevent any danger to public health, safety, or the environment. The contents of the report should not be construed in any way as a recommendation to purchase, sell, or develop the project site.

It is important to note that site conditions may fluctuate dependent upon a variety of factors including the weather and time of year. The data provided in this study is only indicative of conditions surveyed at the immediate time of the study. Professional services and scientific analyses have been performed, and recommendations prepared in accordance with customary principles in the fields of engineering and analytical science. This warranty is in lieu of all other warranties expressed or implied. The work performed in conjunction with this assessment and the data developed is intended as a description of available information at the dates and locations given. This report does not warrant against future operations or conditions, nor does it warrant against extant, or future, conditions of a type or at a location not investigated.



APPENDIX A

ASBESTOS DOCUMENTATION, LABORATORY REPORTS



EMSL Analytical, Inc.

10768 Baltimore Avenue, Beltsville, MD 20705

Phone: (301) 937-5700 Fax: (301) 937-5701 Email: beltsvillelab@emsl.com

Attn: **Alan Lederman**
Froehling & Robertson
7798 Waterloo Road
Jessup, MD 20794

Customer ID: FROE62
Customer PO:
Received: 03/12/09 2:20 PM
EMSL Order: 190902413

Fax: (443) 733-1015 Phone: (443) 733-1011
Project: **K68-128E**

EMSL Proj:
Analysis Date: 3/13/2009
Report Date: 3/16/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
117-01 190902413-0001	BLACK MASTIC (1ST FL. NORTH)	Black/Brown Fibrous Heterogeneous	5% Cellulose 5% Synthetic	90% Non-fibrous (other)	None Detected
117-02 190902413-0002	12X12 TAN VFT (1ST FL. NORTH)	White/Beige Fibrous Heterogeneous	3% Cellulose 2% Synthetic	60% Ca Carbonate 35% Non-fibrous (other)	None Detected
			TILE		
117-02A 190902413-0002A	12X12 TAN VFT (1ST FL. NORTH)	Yellow Fibrous Heterogeneous	5% Cellulose 10% Synthetic	85% Non-fibrous (other)	None Detected
			MASTIC		
117-03 190902413-0003	TAN STAIRS TREAD MASTIC (1ST FL)	Yellow/Brown Fibrous Heterogeneous	10% Cellulose 5% Synthetic	85% Non-fibrous (other)	None Detected
			STAIR TREAD MASTIC		
117-04 190902413-0004	12X12 WHITE LINOLEUM (REAR STAIRWELL)	White/Gray Fibrous Heterogeneous	10% Cellulose 2% Synthetic	25% Ca Carbonate 63% Non-fibrous (other)	None Detected
			1ST LAYER - LINO		
117-04A 190902413-0004A	12X12 WHITE LINOLEUM (REAR STAIRWELL)	Yellow/Clear Fibrous Heterogeneous	2% Cellulose 5% Synthetic	93% Non-fibrous (other)	None Detected
			2ND LAYER - LINO MASTIC		
117-04B 190902413-0004B	12X12 WHITE LINOLEUM (REAR STAIRWELL)	White/Tan Fibrous Heterogeneous	2% Cellulose <1% Synthetic	60% Ca Carbonate 38% Non-fibrous (other)	None Detected
			3RD LAYER - LINO		

Analyst(s) _____

George Malone (35)

Joe Centifonti, Laboratory Manager
or other approved signatory

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NVLAP Lab Code 200293-0



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Customer ID: FROE62
Customer PO:
Received: 03/12/09 2:20 PM
EMSL Order: 190902413

Fax: (443) 733-1015 Phone: (443) 733-1011
Project: **K68-128E**

EMSL Proj:
Analysis Date: 3/13/2009
Report Date: 3/16/2009

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

Sample	Location	Appearance	Non-Asbestos			Asbestos
			% Fibrous	% Non-Fibrous		% Type
117-04C <i>190902413-0004C</i>	12X12 WHITE LINOLEUM (REAR STAIRWELL)	Rust/Yellow Fibrous Heterogeneous	5% Cellulose 3% Synthetic	92% Non-fibrous (other)		None Detected
			4TH LAYER - LINO MASTIC			
117-05 <i>190902413-0005</i>	STONE PATTERN LINOLEUM (FOYER)	Beige/Gray Non-Fibrous Heterogeneous	<1% Cellulose <1% Synthetic	60% Ca Carbonate 40% Non-fibrous (other)		None Detected
			LINO			
117-05A <i>190902413-0005A</i>	STONE PATTERN LINOLEUM (FOYER)	Yellow/Clear Fibrous Heterogeneous	<1% Cellulose 3% Synthetic	97% Non-fibrous (other)		None Detected
			MASTIC			
117-06 <i>190902413-0006</i>	DOOR INSULATION	Brown/Blue Fibrous Heterogeneous	95% Cellulose	5% Non-fibrous (other)		None Detected
			DOOR INS			
117-07 <i>190902413-0007</i>	2ND LAYER LINOLEUM/2ND FL S. SIDE	Cream/Beige Fibrous Heterogeneous	2% Cellulose <1% Synthetic	60% Ca Carbonate 38% Non-fibrous (other)		None Detected
			LINO			
117-07A <i>190902413-0007A</i>	2ND LAYER LINOLEUM/2ND FL S. SIDE	Yellow/Brown Fibrous Heterogeneous	5% Cellulose 7% Synthetic	88% Non-fibrous (other)		None Detected
			MASTIC			
117-08 <i>190902413-0008</i>	PINK LINOLEUM/2ND FL. N. SIDE	Beige/Cream Fibrous Heterogeneous	15% Cellulose 10% Glass	15% Ca Carbonate 60% Non-fibrous (other)		None Detected
			LINO ONLY; NO MASTIC			

Analyst(s) _____

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Joe Centifonti, Laboratory Manager
or other approved signatory

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Customer ID: FROE62
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Received: 03/12/09 2:20 PM
EMSL Order: 190902413

Fax: (443) 733-1015 Phone: (443) 733-1011
Project: **K68-128E**

EMSL Proj:
Analysis Date: 3/13/2009
Report Date: 3/16/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
117-09 190902413-0009	2ND LAYER WHITE LINOLEUM	White/Gray Fibrous Heterogeneous	10% Cellulose 7% Synthetic	25% Ca Carbonate 58% Non-fibrous (other)	None Detected
		LINO			
117-09A 190902413-0009A	2ND LAYER WHITE LINOLEUM	Clear/Brown Fibrous Heterogeneous	20% Cellulose 10% Synthetic	70% Non-fibrous (other)	None Detected
		MASTIC			
117-10 190902413-0010	WINDOW CAULK /BLDG REAR	White/Gray Fibrous Heterogeneous	5% Cellulose	85% Non-fibrous (other) 10% Quartz	None Detected
		WINDOW CAULK			
117-11 190902413-0011	DOOR CAULK/LAUNDRY RM	White/Gray Fibrous Heterogeneous	3% Cellulose	97% Non-fibrous (other)	None Detected
		DOOR CAULK			
117-12 190902413-0012	BLACK SURFACING MATERIAL/STAIR WELL LAUNDRY	Black/Brown Fibrous Heterogeneous	5% Cellulose	95% Non-fibrous (other)	None Detected
		SURFACING MAT			
117-13 190902413-0013	SKIM COAT PLASTER	Yellow/White Non-Fibrous Heterogeneous		20% Mica 80% Non-fibrous (other)	None Detected
		SKIM COAT			
117-14 190902413-0014	SCRATCH COAT PLASTER	Beige/Brown Fibrous Heterogeneous	10% Cellulose	10% Mica 40% Non-fibrous (other) 40% Quartz	None Detected
		SCRATCH COAT			

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Project: **K68-128E**

EMSL Proj:
Analysis Date: 3/13/2009
Report Date: 3/16/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
117-15 <i>190902413-0015</i>	SKIM COAT PLASTER	Yellow/White Non-Fibrous Heterogeneous		20% Mica 80% Non-fibrous (other)	None Detected
			SKIM COAT		
117-16 <i>190902413-0016</i>	SCRATCH COAT PLASTER	Brown/Beige Fibrous Heterogeneous	5% Cellulose	10% Mica 40% Non-fibrous (other) 45% Quartz	None Detected
			SCRATCH COAT		
117-17 <i>190902413-0017</i>	SKIM COAT PLASTER	Yellow/White Non-Fibrous Heterogeneous		25% Mica 75% Non-fibrous (other)	None Detected
			SKIM COAT		
117-18 <i>190902413-0018</i>	SCRATCH COAT PLASTER	Brown/Beige Fibrous Heterogeneous	10% Cellulose	10% Mica 40% Non-fibrous (other) 40% Quartz	None Detected
			SCRATCH COAT		
117-19 <i>190902413-0019</i>	SHEETROCK/2N D FL S. SIDE	White/Brown Fibrous Heterogeneous	25% Cellulose 10% Glass	65% Gypsum	None Detected
			SHEET ROCK		
117-20 <i>190902413-0020</i>	JOINT COMPOUND/1ST FL N. SIDE	White/Tan Non-Fibrous Heterogeneous	<1% Cellulose	25% Mica 75% Non-fibrous (other)	None Detected
			JC		
117-21 <i>190902413-0021</i>	COMPOSITE/1ST FL S. SIDE	White/Brown Fibrous Heterogeneous	25% Cellulose 10% Glass	40% Gypsum 10% Mica 15% Non-fibrous (other)	None Detected
			SHEET ROCK/JC COMPOSITE		

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Fax: (443) 733-1015 Phone: (443) 733-1011
Project: **K68-128E**

EMSL Proj:
Analysis Date: 3/13/2009
Report Date: 3/16/2009

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

Sample	Location	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Type
117-22 <small>190902413-0022</small>	SHEETROCK/2ND D FL S. SIDE	White/Brown Fibrous Heterogeneous	20% Cellulose	80% Gypsum	None Detected
			SHEET ROCK		
117-23 <small>190902413-0023</small>	JOINT COMPOUND/2ND FL S. SIDE	White Fibrous Heterogeneous	5% Cellulose	25% Mica 70% Non-fibrous (other)	None Detected
			JC		
117-24 <small>190902413-0024</small>	COMPOSITE/2ND FL S. SIDE	White/Brown Fibrous Heterogeneous	20% Cellulose	50% Gypsum 10% Mica 20% Non-fibrous (other)	None Detected
			SHEET ROCK/JC COMPOSITE		
117-25 <small>190902413-0025</small>	DRYWALL LAUNDRY	White/Brown Fibrous Heterogeneous	25% Cellulose	75% Gypsum	None Detected
			DW		
117-26 <small>190902413-0026</small>	JOINT COMPOUND LAUNDRY	White Non-Fibrous Heterogeneous	<1% Cellulose	30% Mica 70% Non-fibrous (other)	None Detected
			DW/JC		
117-27 <small>190902413-0027</small>	COMPOSITE LAUNDRY	White/Brown Fibrous Heterogeneous	20% Cellulose	50% Gypsum 10% Mica 20% Non-fibrous (other)	None Detected
			DW/JC COMPOSITE		
117-28 <small>190902413-0028</small>	CERAMIC TILE MASTIC/1ST FL N. SIDE	Brown/Yellow Fibrous Heterogeneous	65% Cellulose	35% Non-fibrous (other)	None Detected
			CER TILE MASTIC		

Analyst(s) _____

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NVLAP Lab Code 200293-0



Chain of Custody

Asbestos Lab Services

EMSL Analytical, Inc.
10768 Baltimore
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Phone: (301) 937-5700
Fax: (301) 937-5701
<http://www.emsl.com>

Please print all information legibly.

Company:	Froehling & Robertson	Bill To:	Froehling & Robertson
Address1:	7798 Waterloo Road	Address1:	7798 Waterloo Road
Address2:		Address2:	
City, State:	Jessup, Maryland	City, State:	Jessup, Maryland
Zip/Post Code:	20794	Zip/Post Code:	20794
Country:		Country:	
Contact Name:	Alan Lederman	Attn:	Alan Lederman
Phone:	443-733-1011	Phone:	443-733-1011
Fax:	443-733-1015	Fax:	443-733-1015
Email:	alederman@fandr.com	Email:	alederman@fandr.com
EMSL Rep:	Sheryl Steinmetz	P.O. Number:	
Project Name/Number: 468/WQA K68-128E			

MATRIX			TURNAROUND			
<input type="checkbox"/> Air	<input type="checkbox"/> Soil	<input type="checkbox"/> Micro-Vac	<input type="checkbox"/> 3 Hours	<input type="checkbox"/> 6 Hours	<input type="checkbox"/> Same Day or 12 Hours*	<input type="checkbox"/> 24 Hours (1 day)
<input checked="" type="checkbox"/> Bulk	<input type="checkbox"/> Drinking Water		<input checked="" type="checkbox"/> 48 Hours (2 days)	<input type="checkbox"/> 72 Hours (3 days)	<input type="checkbox"/> 96 Hours (4 days)	<input type="checkbox"/> 120 Hours (5 days)
<input type="checkbox"/> Wipe	<input type="checkbox"/> Wastewater		<input type="checkbox"/> 144+ hours (6-10 days)			

TEM AIR, 3 hours, 6 hours, Please call ahead to schedule. There is a premium charge for 3-hour tat, please call 1-800-220-3675 for price prior to sending samples. You will be asked to sign an authorization form for this service.

*12 hours (must arrive by 11:00a.m. Mon -Fri.), Please Refer to Price Quote

PCM - Air <input type="checkbox"/> NIOSH 7400(A) Issue 2: August 1994 <input type="checkbox"/> OSHA w/TWA <input type="checkbox"/> Other:	TEM Air <input type="checkbox"/> AHERA 40 CFR, Part 763 Subpart E <input type="checkbox"/> NIOSH 7402 <input type="checkbox"/> EPA Level II	TEM WATER <input type="checkbox"/> EPA 100.1 <input type="checkbox"/> EPA 100.2 <input type="checkbox"/> NYS 198.2
PLM - Bulk <input checked="" type="checkbox"/> EPA 600/R-93/116 <input type="checkbox"/> EPA Point Count <input type="checkbox"/> NY Stratified Point Count <input type="checkbox"/> PLM NOB (Gravimetric) NYS 198.1 <input type="checkbox"/> NIOSH 9002: <input type="checkbox"/> EMSL Standard Addition:	TEM BULK <input type="checkbox"/> Drop Mount (Qualitative) <input type="checkbox"/> Chatfield SOP - 1988-02 <input type="checkbox"/> TEM NOB (Gravimetric) NYS 198.4 <input type="checkbox"/> EMSL Standard Addition:	TEM Microvac/Wipe <input type="checkbox"/> ASTM D 5755-95 (quantative method) <input type="checkbox"/> Wipe Qualitative
SEM Air or Bulk <input type="checkbox"/> Qualitative <input type="checkbox"/> Quantitative	PLM Soil <input type="checkbox"/> EPA Protocol Qualitative <input type="checkbox"/> EPA Protocol Quantitative <input type="checkbox"/> EMSL MSD 9000 Method fibers/gram	XRD <input type="checkbox"/> Asbestos <input type="checkbox"/> Silica NIOSH 7500
OTHER <input type="checkbox"/>		



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<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) 117-01 - 117-28

Total Samples #: 28

Relinquished: Alan Lederman Date: 3-12-09

Time: 2:35 PM

Received: (M) Date: 3/12/09

Time: 2:45 PM WH

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
117-01	Black Mastic (1 st Fl. North)	
117-02	12"x12" Tan VFT (1 st Fl. North)	
117-03	Tan Stair Tread Mastic (1 st Floor)	
117-04	Red 12"x12" White Linoleum (Rear Stairwell)	
117-05	Stone Pattern Linoleum (Foyer)	
117-06	Door Insulation	
117-07	2 nd Layer Linoleum / 2 nd Fl. S. Side White Linoleum / Rear Stairwell	
117-08	Pink Linoleum / 2 nd Fl. N Side	
117-09	2 nd Layer White Linoleum	
117-10	Window Caulk / Bldg. Rear	
117-11	Door Caulk / Laundry Rm.	
117-12	Black Surfacing Material / Stairwell Landing	
117-13	skim Coat Plaster	
117-14	Scratch Coat Plaster	



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<http://www.emsl.com>

Please print all information legibly.

Client Sample # (s) _____ - _____

Total Samples #: _____

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

Relinquished: _____ Date: _____

Time: _____

Received: _____ Date: _____

Time: _____

SAMPLE NUMBER	SAMPLE DESCRIPTION/LOCATION	VOLUME (if applicable)
117-15	Skin Coat Plaster	
117-16	Scratch Coat Plaster	
117-17	Skin Coat Plaster	
117-18	Scratch Coat Plaster	
117-19	Sheetrock / 1 st Fl. N. side	
117-20	Joint Compound ↓	
117-21	Composite ↓	
117-22	Sheetrock / 2 nd Fl. S. side	
117-23	Joint Compound ↓	
117-24	Composite ↓	
117-25	Drywall Laundry	
117-26	Joint Compound ↓	
117-27	Composite ↓	
117-28	Ceramic Tile Mastic / 1 st Fl. N. side	



APPENDIX B

XRF DATA TABLES EXPLANATION OF XRF DATA

Reading No	Area	Component	Substrate	Condition	Color	Units	Action Level	PbC	PbC Error	LEAD BASED PAINT YES/NO
1		CALIBRATE					0.7	1	0.3	N/A
2		CALIBRATE					0.7	1.1	0.3	N/A
3		CALIBRATE					0.7	1.2	0.4	N/A
4	1st Floor North Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
5	1st Floor North Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
6	1st Floor North Side Apt.	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
7	1st Floor North Side Apt.	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
8	1st Floor North Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
9	1st Floor North Side Apt.	Wall	Sheetrock	Fair	Yellow	mg/cm^2	0.7	0	0.02	NO
10	1st Floor North Side Apt.	Baseboard	Wood	Fair	Yellow	mg/cm^2	0.7	0	0.02	NO
11	1st Floor North Side Apt.	Wall	Sheetrock	Fair	Blue	mg/cm^2	0.7	0	0.02	NO
12	1st Floor North Side Apt.	Wall Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.01	0.05	NO
13	1st Floor North Side Apt.	Floor Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.04	0.15	NO
14	1st Floor North Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
15	1st Floor North Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
16	1st Floor South Side Apt.	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
17	1st Floor South Side Apt.	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
18	1st Floor South Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
19	1st Floor South Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0.01	0.09	NO
20	1st Floor South Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
21	1st Floor South Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
22	1st Floor South Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
23	1st Floor South Side Apt.	Floor Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.02	0.05	NO
24	1st Floor South Side Apt.	Wall Tile	Ceramic	Fair	White	mg/cm^2	0.7	0.06	0.17	NO
25	Stairwell	Wall	Plaster	Fair	White	mg/cm^2	0.7	0	0.02	NO
26	Stairwell	Ceiling	Plaster	Fair	White	mg/cm^2	0.7	0	0.02	NO
27	Stairwell	Ceiling	Plaster	Fair	White	mg/cm^2	0.7	0	0.02	NO
28	Stairwell	Wall	Plaster	Fair	White	mg/cm^2	0.7	0	0	NO
29	Stairwell	Baseboard	Wood	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
30	Stairwell	Stair Newal Post	Metal	Fair	Brown	mg/cm^2	0.7	0.03	0.06	NO
31	Stairwell	Stair Railing	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
32	Stairwell	Stair Riser	Metal	Fair	Brown	mg/cm^2	0.7	0.18	0.27	NO
33	Stairwell	Stair Stinger	Metal	Fair	Brown	mg/cm^2	0.7	0.27	0.23	NO

Reading No	Area	Component	Substrate	Condition	Color	Units	Action Level	PbC	PbC Error	LEAD BASED PAINT YES/NO
34	Stairwell	Wall	Plaster	Fair	Yellow	mg/cm^2	0.7	0.01	0.06	NO
35	2nd Floor N. Side Apt.	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
36	2nd Floor N. Side Apt.	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
37	2nd Floor N. Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
38	2nd Floor N. Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
39	2nd Floor N. Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
40	2nd Floor N. Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
41	2nd Floor N. Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
42	2nd Floor N. Side Apt.	Wall	Sheetrock	Fair	Blue	mg/cm^2	0.7	0	0.02	NO
43	2nd Floor S. Side Apt.	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
44	2nd Floor S. Side Apt.	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
45	2nd Floor S. Side Apt.	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
46	2nd Floor S. Side Apt.	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
47	2nd Floor S. Side Apt.	Baseboard	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
48	2nd Floor S. Side Apt.	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
49	2nd Floor S. Side Apt.	Ceiling	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
50	Foyer	Interior Door Frame	Wood	Poor	Brown	mg/cm^2	0.7	0.22	0.56	NO
51	Foyer	Exterior Door Frame	Wood	Poor	Brown	mg/cm^2	0.7	3	2.3	YES
52	Foyer	Front Door	Wood	Poor	Brown	mg/cm^2	0.7	0	0.01	NO
53	Front Exterior	Window Gates	Metal	Fair	Black	mg/cm^2	0.7	0	0.02	NO
54	Laundry Room	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
55	Laundry Room	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
56	Laundry Room	Wall	Sheetrock	Fair	White	mg/cm^2	0.7	0	0.02	NO
57	Laundry Room	Door	Wood	Fair	White	mg/cm^2	0.7	0	0.02	NO
58	Laundry Room	Door Frame	Wood	Fair	White	mg/cm^2	0.7	0	0.06	NO
59	Laundry Room	Pipe	Metal	Fair	White	mg/cm^2	0.7	0	0.02	NO
60	Laundry Room	Railing	Metal	Fair	Black	mg/cm^2	0.7	0	0.02	NO
61	Rear Exterior	Bollards	Concrete	Fair	Yellow	mg/cm^2	0.7	0.01	0.02	NO
62	Basement Storage Room	Door	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
63	Basement Storage Room	Door Frame	Metal	Fair	Brown	mg/cm^2	0.7	0	0.02	NO
64		CALIBRATE					0.7	1	0.3	N/A
65		CALIBRATE					0.7	0.9	0.5	N/A
66		CALIBRATE					0.7	0.9	0.5	N/A



EXPLANATION OF XRF DATA

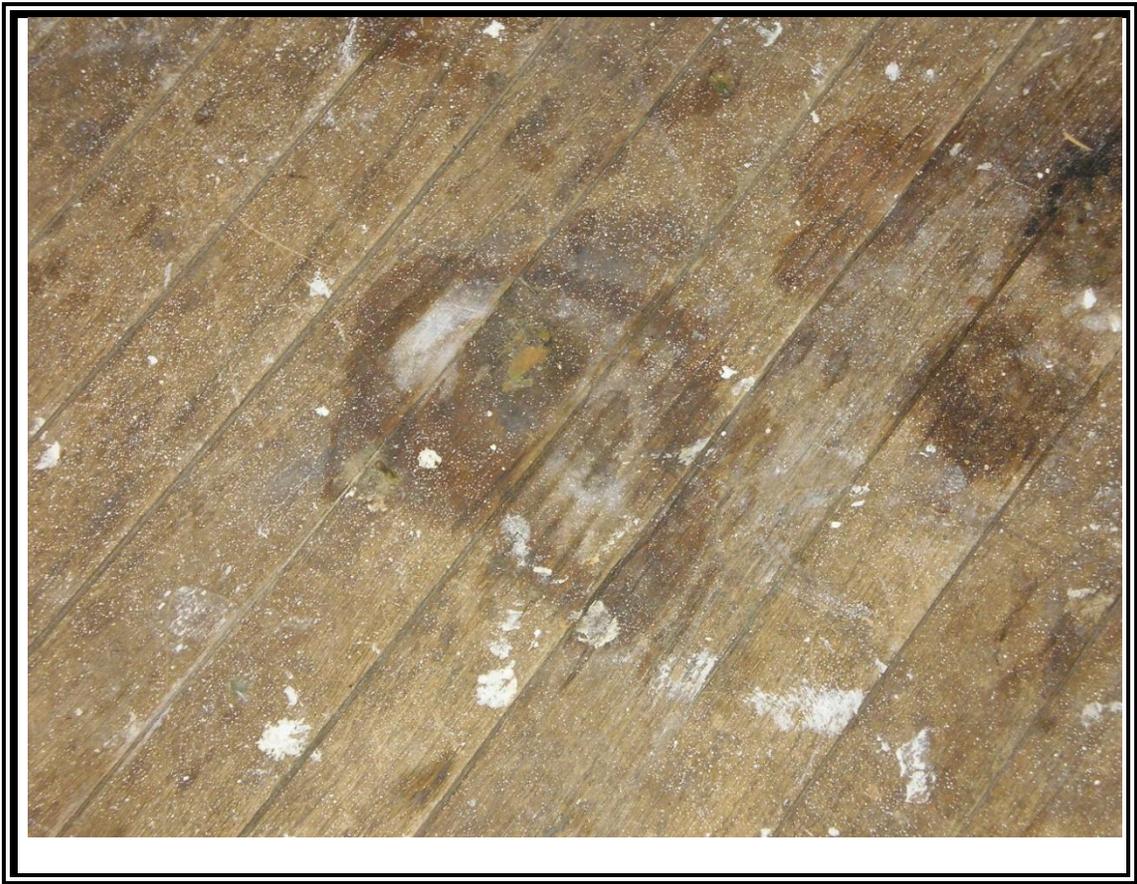
The table header displays Inspector's name and license number, XL-309 serial number, the job site location, and sampling date.

<u>Column</u>	<u>Description</u>
Reading No	Consecutive sample numbers assigned by the instrument at testing time.
Site	Testing site location(s).
Component	The major building component being tested.
Substrate	The type of material underlying the painted coating.
Color	Color of the painted or varnished surface.
Result	Result of the test: NEG = negative POS = positive NULL = incomplete test / reading error
	<i>There is no inconclusive range for the Niton XL-309.</i>
Action Level	Concentration of lead defined as lead-based paint.
Pbc	Combined L and K-Shell x-ray readings of lead level.



APPENDIX C

SITE PHOTOGRAPHS



1. View of mold growth on wood floor in 1st Floor South Side Apartment.



2. View of exterior brown wood door frame with lead-based paint.



3. View of mold growth on sheetrock wall in 1st Floor North Side Apartment Living Room.



4. View of mold growth on wood ceiling joists in Basement Storage Room.



5. View of mold growth on sheetrock walls in the Laundry Room.