

Material Testing Reports

- A. Enclosed herein are the results of material tests performed on materials scheduled for removal.
- B. Removal of asbestos containing roof materials is work of this contract. Removal procedures shall conform to requirements contained in Specification Section 02 82 13.13 Glovebag Asbestos Abatement.
- C. Removal of lead containing paint products is work of this contract. Removal procedures shall conform to requirement contained in Specification Section 02 83 33.13 Lead Based Paint Removal and Disposal.

November 29, 2010

Margie Jacobs
Tate/Hill/Jacobs Architects
346 East Main Street
Lexington, Kentucky 40507

RE: Lebanon National Cemetery Asbestos Survey
ASTI Project A6928

Dear Ms. Jacobs:

Air Source Technology, Inc. conducted an asbestos-containing building material renovation survey at the Lebanon National Cemetery Meigs Lodge on November 17, 2010. Suspect building material samples were collected and analyzed for asbestos content. The following table summarizes the sampling and results:

Suspect Asbestos Building Material Samples		
Sample ID	Location/Description	Asbestos (%)
A-1	Attic / Spray-in insulation	None Detected
A-2	Exterior / Upper Roof Coating	None Detected
A-3	Exterior / Lower Roof Coating	2% Chrysotile
A-4	Exterior / Roof Flashing Lower Roof	2% Chrysotile
A-5(a)	Kitchen / Linoleum	20% Chrysotile
A-5(b)	Kitchen / Linoleum Adhesive	None Detected
A-6(a)	1 st Floor Bath / Linoleum	20% Chrysotile
A-6(b)	1 st Floor Bath / Linoleum Adhesive	None Detected
A-7	Exterior / Window Putty	None Detected
A-8	Kitchen / 12" Ceiling Tile	None Detected
A-9	Office 1 st Floor / 12" Ceiling Tile with Holes	None Detected
A-10	Office 1 st Floor / 2' Drop Ceiling Tile	None Detected
A-11	Basement / Wall Plaster	None Detected
A-12	Office 1 st Floor / Wall Plaster	None Detected
A-13	Office 1 st Floor / Ceiling Plaster	None Detected

Note: Greater than 1% is defined as asbestos-containing

As you can see, lower roof coating, lower roof flashing, Kitchen linoleum, and 1st Floor Bathroom linoleum were identified as asbestos-containing materials. Crawlspace pipe insulation (under Kitchen) and exterior transite siding (2nd floor) were assumed to be asbestos-containing.

At this point, ASTI estimates the total of asbestos-containing materials to be as follows:

ACBM Material	Estimated Quantity
Lower Roof Coating	285 square feet
Lower Roof Flashing	30 square feet
Kitchen Linoleum	210 square feet
1 st Floor Bathroom Linoleum	20 square feet
Pipe Insulation (Crawlspace)	40 linear feet
Exterior Transite Siding (2 nd Floor)	1000 square feet

Air Source Technology, Inc. appreciates the opportunity to be of service to you and Tate/Hill/Jacobs Architects. Should you have any questions or additional needs, please call me at (859) 299-0046.

Yours truly,



Michael B. McGonigle, CIEC, MSPH
Senior Industrial Hygienist
AHERA Inspector/Management Planner # P10-03-0356



Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Asbestos Bulk Analysis Report

Client: Air Source Technology Inc.
160 Prosperous Pl. Ste. 201
Lexington, KY 40509

Report Number: 10-11-02912

Received Date: 11/19/2010
Analyzed Date: 11/19/2010
Reported Date: 11/23/2010

Project/Test Address: A6928 THJ-National Cemetary; Lebanon, KY

Client Number:
18-4340

Fax Number:
859-299-0494

Laboratory Results

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
10-11-02912-001	A-1		Gray Fib.	NAD	95% Cellulose 5% Non-Fibrous
10-11-02912-002	A-2		Black Tar-Like; Silver Paint	NAD	10% Cellulose 10% Fibrous Glass 80% Non-Fibrous
10-11-02912-003	A-3		Black Tar-Like; Silver Paint	2% Chrysotile	8% Cellulose 90% Non-Fibrous
				Total Asbestos: 2%	
Chrysotile present throughout sample.					
10-11-02912-004	A-4		Black Tar-Like; Silver Paint	2% Chrysotile	10% Cellulose 88% Non-Fibrous
				Total Asbestos: 2%	
Chrysotile present throughout sample.					
10-11-02912-005A	A-5	Linoleum	Gray Vinyl; Beige Fib.	20% Chrysotile	10% Cellulose 70% Non-Fibrous
				Total Asbestos: 20%	
Chrysotile present in fibrous backing.					

Environmental Hazards Services, L.L.C

Client Number: 18-4340

Report Number: 10-11-02912

Project/Test Address: A6928 THJ-National Cemetary; Lebanon,
KY

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
10-11-02912-005B	A-5	Mastic	Tan Adhes.	NAD	1% Cellulose 99% Non-Fibrous
10-11-02912-006A	A-6	Linoleum	Tan Vinyl; Beige Fib.	20% Chrysotile	10% Cellulose 70% Non-Fibrous
Total Asbestos: 20%					
Chrysotile present in fibrous backing.					
10-11-02912-006B	A-6	Mastic	Tan Adhes.	NAD	100% Non-Fibrous
10-11-02912-007	A-7		Tan Brittle	NAD	100% Non-Fibrous
10-11-02912-008	A-8		Tan Fib.; White Brittle	NAD	85% Cellulose 15% Non-Fibrous
10-11-02912-009	A-9		Tan Fib.; White Brittle	NAD	85% Cellulose 15% Non-Fibrous
10-11-02912-010	A-10		Tan Fib.; White Brittle	NAD	85% Cellulose 15% Non-Fibrous
10-11-02912-011	A-11		White/Gray Gran.	NAD	100% Non-Fibrous
10-11-02912-012	A-12		White/Gray Gran.	NAD	1% Cellulose 2% Hair 97% Non-Fibrous

Environmental Hazards Services, L.L.C

Client Number: 18-4340

Report Number: 10-11-02912

Project/Test Address: A6928 THJ-National Cemetary; Lebanon,
KY

Lab Sample Number	Client Sample Number	Layer Type	Lab Gross Description	Asbestos	Other Materials
10-11-02912-013	A-13		White/Gray Gran.	NAD	1% Cellulose 3% Hair 96% Non-Fibrous

QC Sample: 66-M 12003-4

QC Blank: SRM 1866 Fiberglass

Reporting Limit: 1% Asbestos

Method: EPA Method 600/R-93/116

Analyst: Vickie Holmes

Reviewed By Authorized Signatory:



Howard Varner

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, volume, etc., was provided by the client. This report cannot be used by the client to claim product endorsement by NVLAP or any agency of the U.S. Government. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714. All information concerning sampling location, date, and time can be found on Chain-of-Custody. Environmental Hazards Services, L.L.C. does not perform any sample collection.

Environmental Hazards Services, L.L.C. recommends reanalysis by point count (for more accurate quantification) or Transmission Electron Microscopy (TEM), (for enhanced detection capabilities) for materials regulated by EPA NESHAP (National Emission Standards for Hazardous Air Pollutants) and found to contain less than ten percent (<10%) asbestos by polarized light microscopy (PLM). Both services are available for an additional fee.

* All California samples analyzed by Polarized Light Microscopy, EPA Method 600/M4-82-020, Dec. 1982.

LEGEND: NAD = no asbestos detected



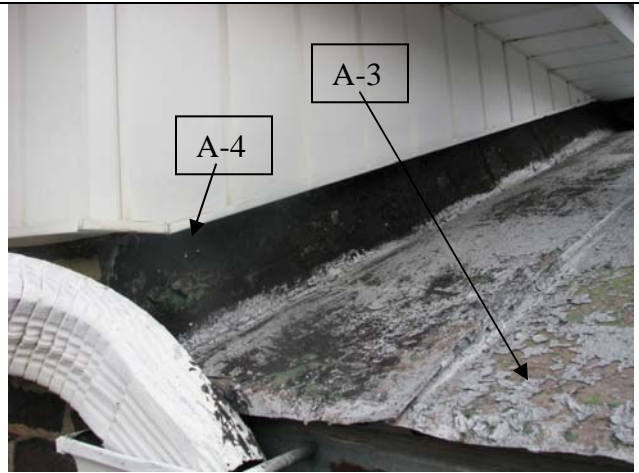
Photograph #1: Pipe insulation (assumed ACM) in crawlspace.



Photograph #2: Attic insulation (Sample A-1).



Photograph #3: Upper roof coating (Sample A-2).



Photograph #4: Lower roof coating and flashing (Sample A-3 & A-4).



Photograph #5: Kitchen linoleum (Sample A-5).



Photograph #6: 1st Floor Bathroom linoleum (Sample A-6).



Photograph #7: Exterior window putty (Sample A-7).



Photograph #8: Kitchen ceiling tile (Sample A-8).



Photograph #9: 1st Floor Office 12'' ceiling tile with holes (Sample A-9).



Photograph #10: 1st Floor Office drop ceiling tile (Sample A-10).



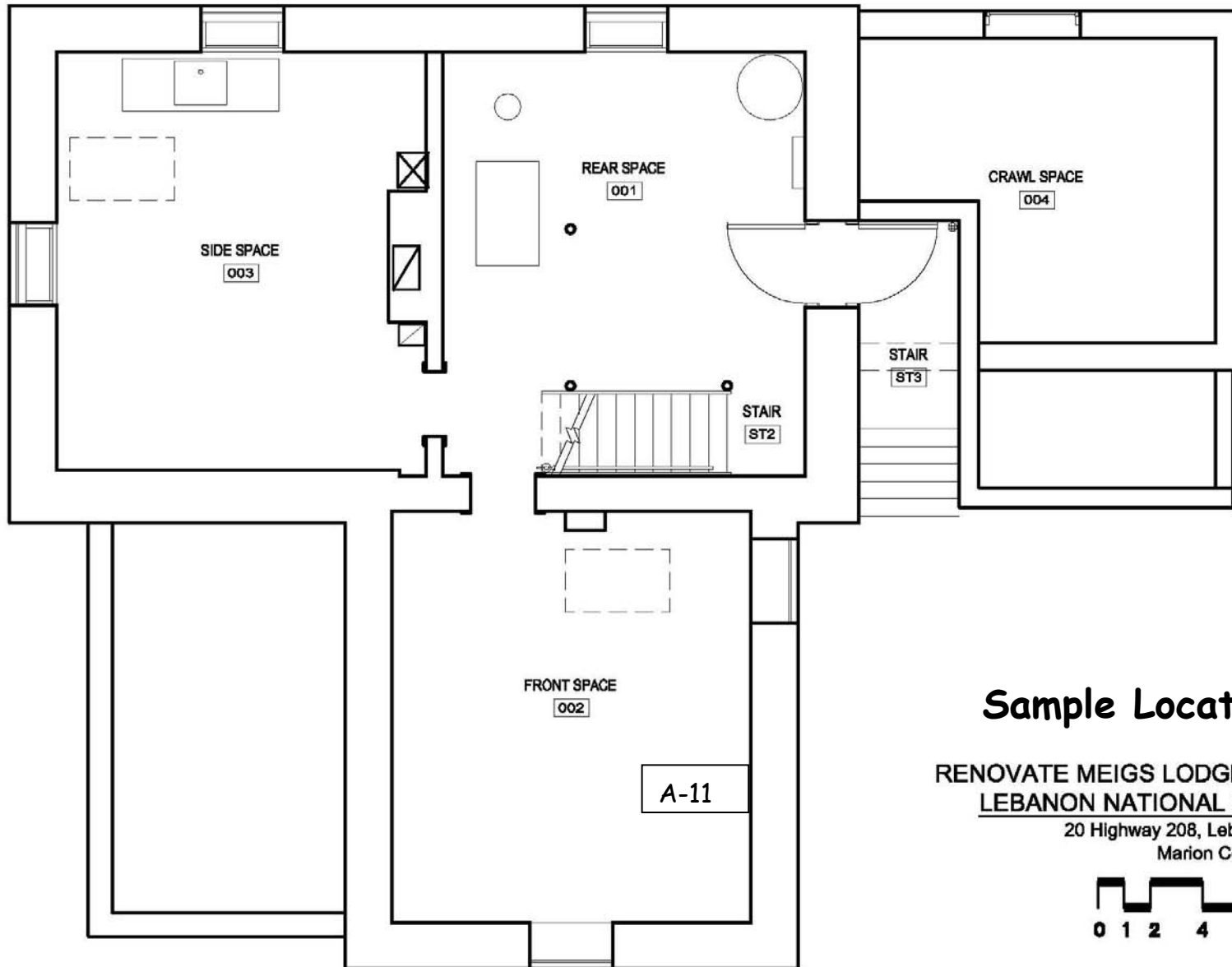
Photograph #11: Basement wall plaster (Sample A-11).



Photograph #12: 1st Floor Office wall plaster (Sample A-12).



Photograph #13: 1st Floor Office ceiling plaster (Sample A-13).



Sample Locations

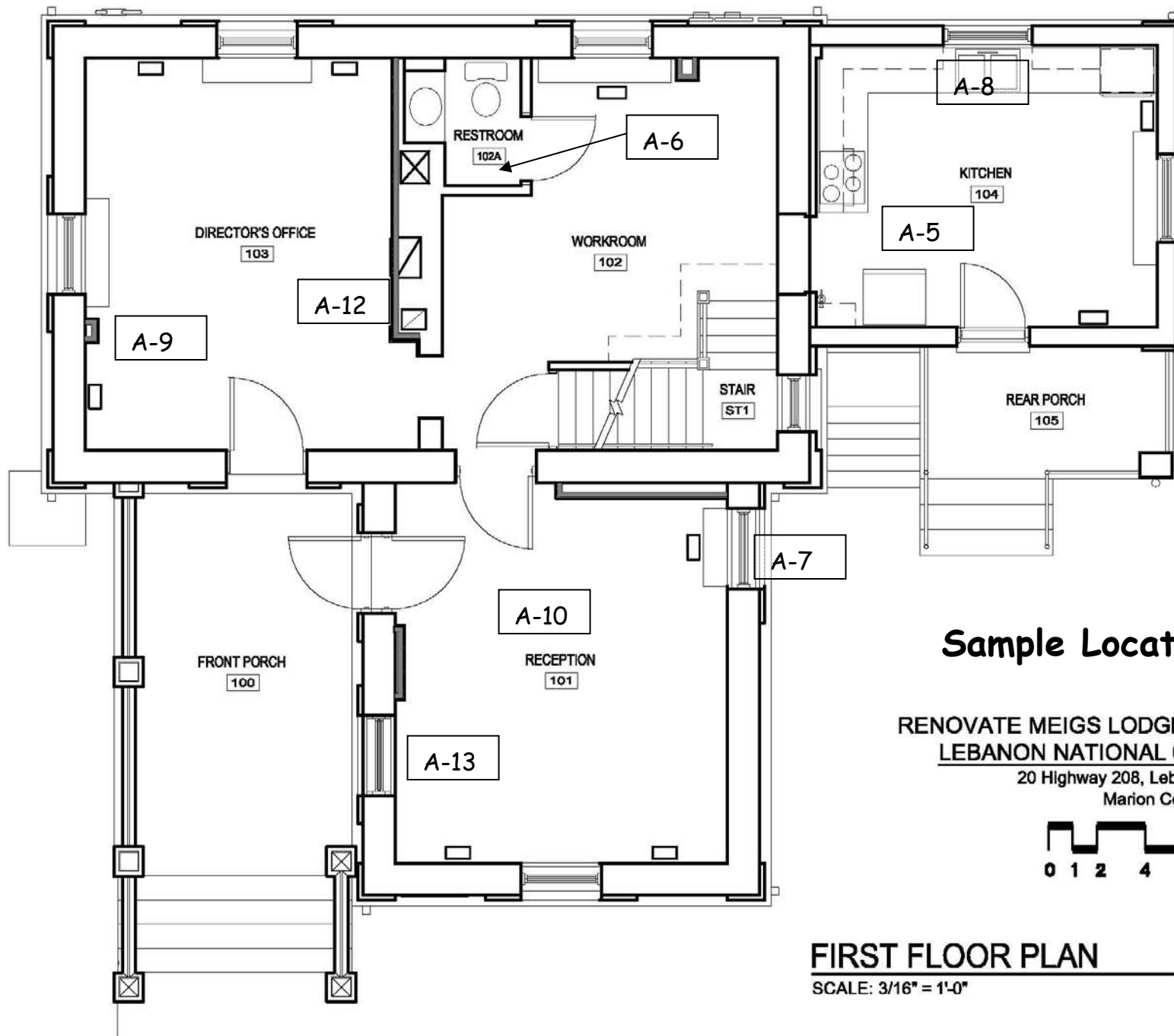
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County , Kentucky



BASEMENT FLOOR PLAN

SCALE: 3/16" = 1'-0"





Sample Locations

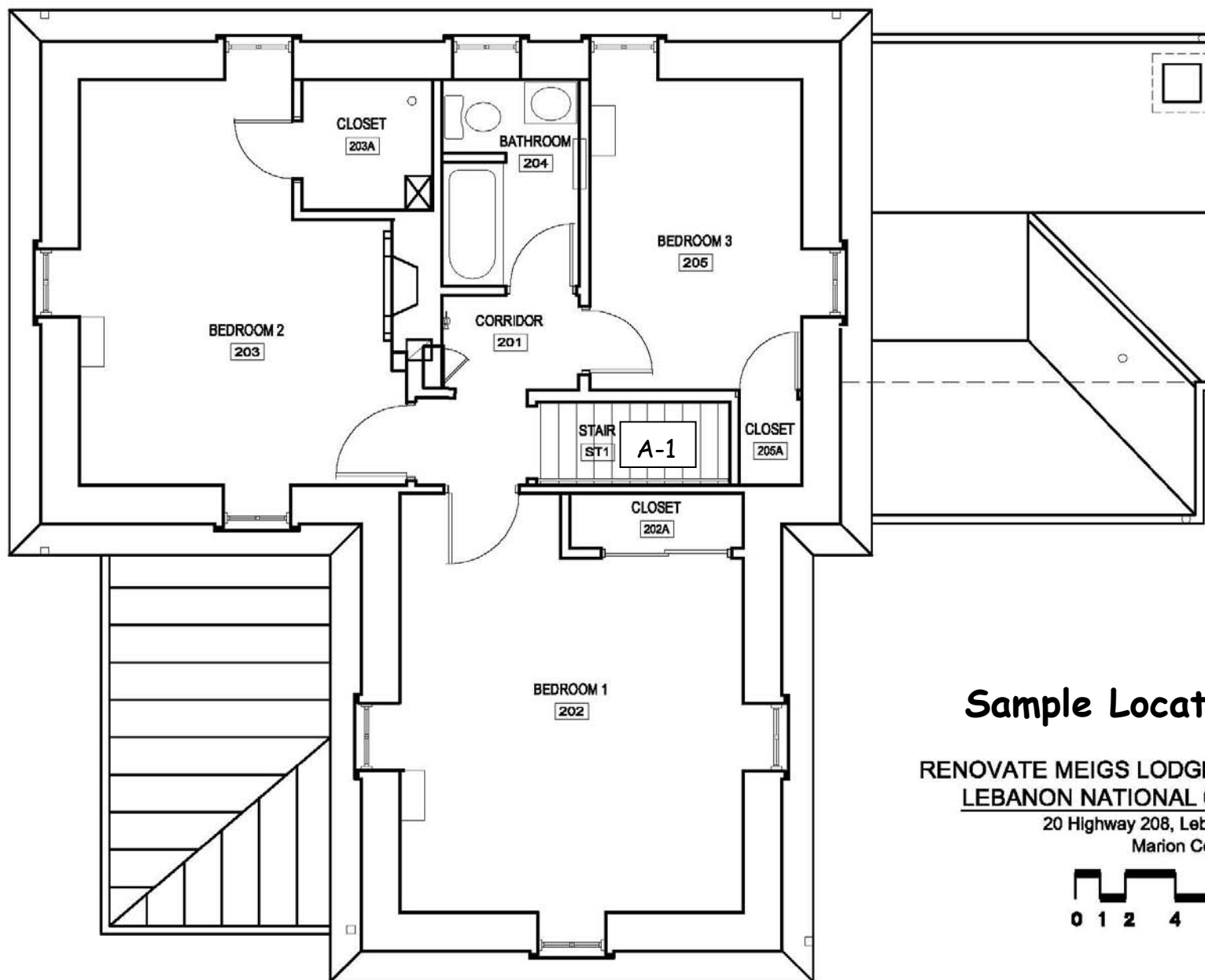
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County , Kentucky



FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"





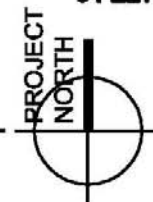
Sample Locations

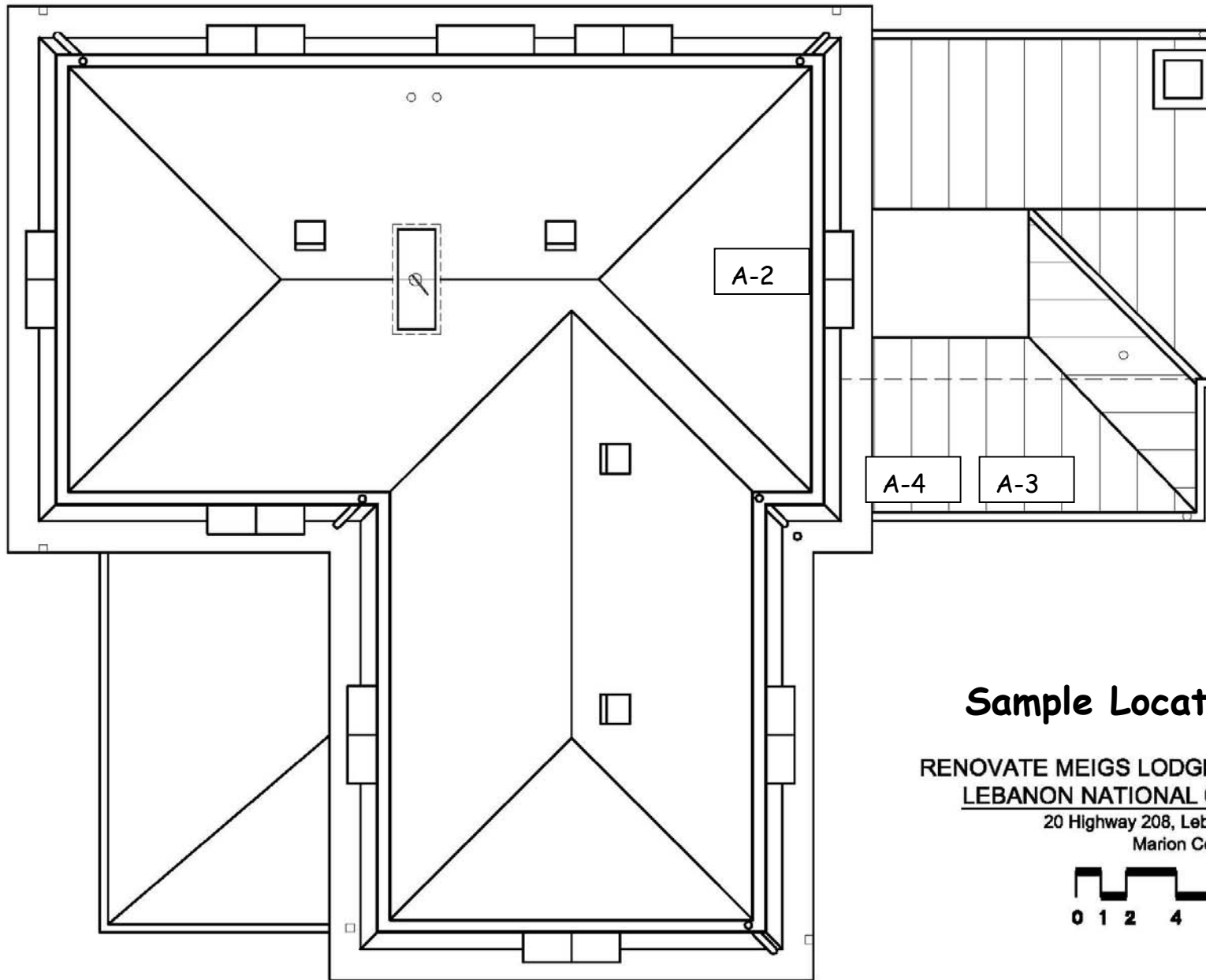
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County, Kentucky



SECOND FLOOR PLAN

SCALE: 3/16" = 1'-0"





Sample Locations

RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County, Kentucky



ROOF PLAN

SCALE: 3/16" = 1'-0"



November 29, 2010

Margie Jacobs
Tate/Hill/Jacobs Architects
346 East Main Street
Lexington, Kentucky 40507

RE: Lebanon National Cemetery Lead Paint Survey
ASTI Project A6928

Dear Ms. Jacobs:

Air Source Technology, Inc. conducted a lead paint renovation survey at the Lebanon National Cemetery Meigs Lodge on November 17, 2010. Paint samples were collected and analyzed for lead content. The following table summarizes the sampling and results:

Paint Samples		
Sample ID	Location/Description	Lead (%)
L-1	1 st Floor Office / White Ceiling Paint	0.29
L-2	Exterior / White Metal Window Grate	30
L-3	Front Porch / Gray Floor Paint	0.22
L-4	Kitchen / White Window Sill Paint	6.3
L-5	1 st Floor Office / White Baseboard Paint	0.082
L-6	1 st Floor Office / Interior White Wood Door Paint	0.20
L-7	1 st Floor Office / Interior White Wood Door Trim Paint	0.069
L-8	1 st Floor Office / White Wall Paint	0.14
L-9	Basement / White Wall Paint	<0.0049
L-10	Basement / White Ceiling Paint	1.5
L-11	Basement / White Paint on Iron Pipe	0.0086

Note: Greater than 0.5% is defined as lead-containing

As you can see, lead paint was identified on the metal window grate, interior window sill, and interior basement ceiling.

Air Source Technology, Inc. appreciates the opportunity to be of service to you and Tate/Hill/Jacobs Architects. Should you have any questions or additional needs, please call me at (859) 299-0046.

Yours truly,

A handwritten signature in black ink that reads "Michael B. McGonigle". The signature is written in a cursive, flowing style.

Michael B. McGonigle, CIEC, MSPH
Senior Industrial Hygienist
Lead Risk Assessor KY# 41-009



Environmental Hazards Services, L.L.C.
7469 Whitepine Rd
Richmond, VA 23237
Telephone: 800.347.4010

Lead Paint Chip Analysis Report

Report Number: 10-11-03010

Client: Air Source Technology Inc.
160 Prosperous Pl. Ste. 201
Lexington, KY 40509

Received Date: 11/19/2010
Analyzed Date: 11/23/2010
Reported Date: 11/23/2010

Project/Test Address: A6928; THJ-National Cemetary; Lebanon, KY
Collection Date: 11/17/2010

Client Number:
18-4340

Laboratory Results

Fax Number:
859-299-0494

Lab Sample Number	Client Sample Number	Collection Location	Pb (ug/g) ppm	% Pb by Wt.	Narrative ID
10-11-03010-001	L-1		2900	0.29	
10-11-03010-002	L-2		300000	30	
10-11-03010-003	L-3		2200	0.22	
10-11-03010-004	L-4		63000	6.3	
10-11-03010-005	L-5		820	0.082	
10-11-03010-006	L-6		2000	0.20	
10-11-03010-007	L-7		690	0.069	
10-11-03010-008	L-8		1400	0.14	
10-11-03010-009	L-9		<49	<0.0049	
10-11-03010-010	L-10		15000	1.5	
10-11-03010-011	L-11		86	0.0086	

Environmental Hazards Services, L.L.C

Client Number: 18-4340

Report Number: 10-11-03010

Project/Test Address: A6928; THJ-National Cemetery; Lebanon, KY

Lab Sample Number	Client Sample Number	Collection Location	Pb (ug/g) ppm	% Pb by Wt.	Narrative ID
----------------------	-------------------------	---------------------	------------------	----------------	-----------------

Method: EPA SW846 7420



Reviewed By Authorized Signatory:

Irma Faszewski

The HUD lead guidelines for lead paint chips are 0.50% by Weight, 5000 ppm, or 1.0 mg/cm². The Reporting Limit (RL) is 10.0 ug Total Pb. Paint chip area and results are calculated based on area measurements determined by the client. All internal quality control requirements associated with this batch were met, unless otherwise noted.

The condition of the samples analyzed was acceptable upon receipt per laboratory protocol unless otherwise noted on this report. Results represent the analysis of samples submitted by the client. Sample location, description, area, etc., was provided by the client. Results reported above in mg/cm³ are calculated based on area supplied by client. This report shall not be reproduced except in full, without the written consent of the Environmental Hazards Service, L.L.C. California Certification #2319 NY ELAP #11714.

LEGEND	Pb= lead	ug = microgram	ppm = parts per million
	ug/g = micrograms per gram	Wt. = weight	



Photograph #1: 1st floor office ceiling paint (Sample L-1).



Photograph #2: Metal window grate paint (Sample L-2).



Photograph #3: Porch floor paint (Sample L-3).



Photograph #4: Interior window sill paint (Sample L-4).



Photograph #5: 1st floor office baseboard paint (Sample L-5).



Photograph #6: 1st Interior door paint (Sample L-6).



Photograph #7: Interior door trim paint (Sample L-7).



Photograph #8: Interior wall paint (Sample L-8).



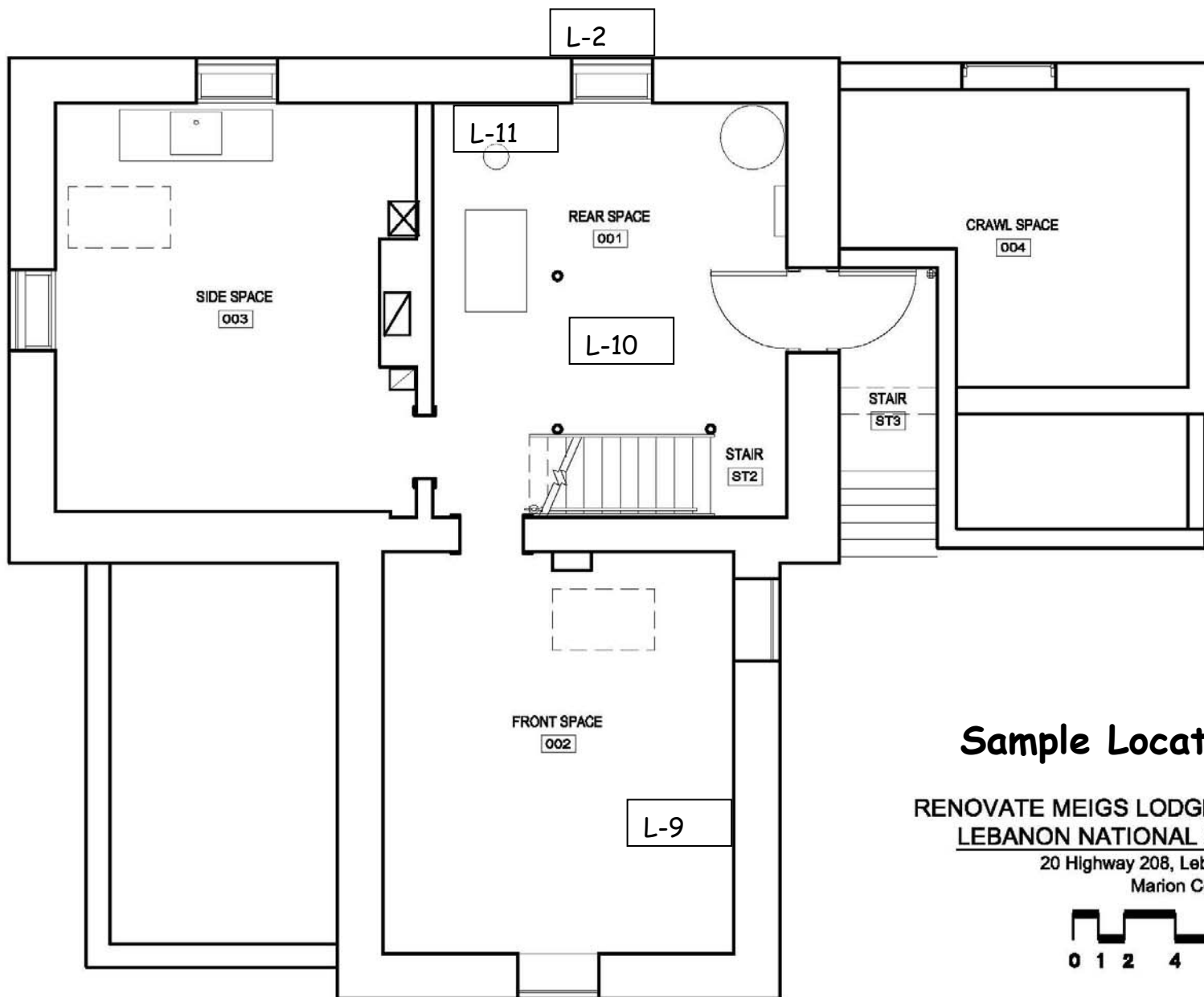
Photograph #9: Basement wall paint (Sample L-9).



Photograph #10: Basement ceiling paint (Sample L-10).



Photograph #11: Basement pipe paint (Sample L-11).



Sample Locations

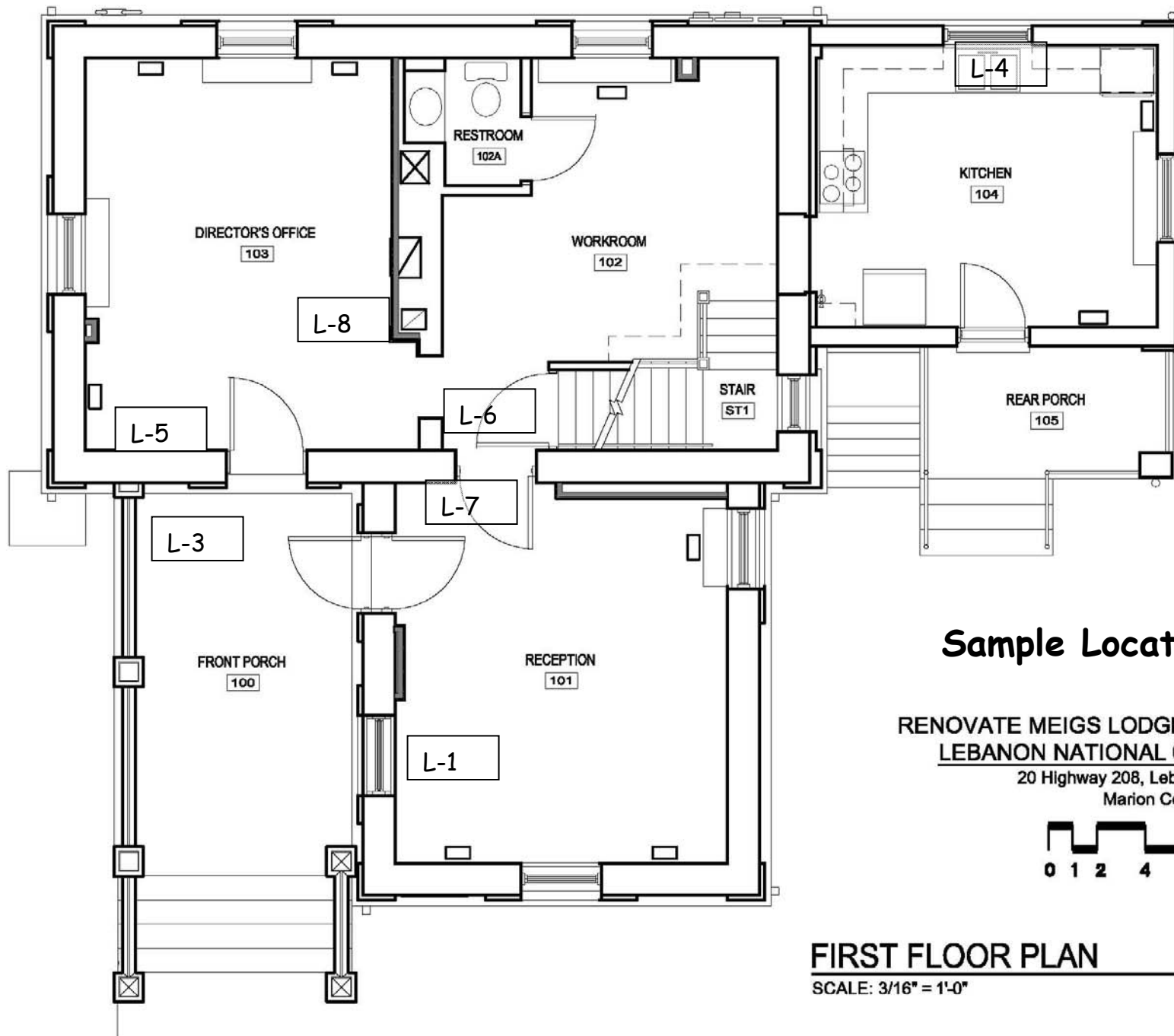
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County, Kentucky



BASEMENT FLOOR PLAN

SCALE: 3/16" = 1'-0"





Sample Locations

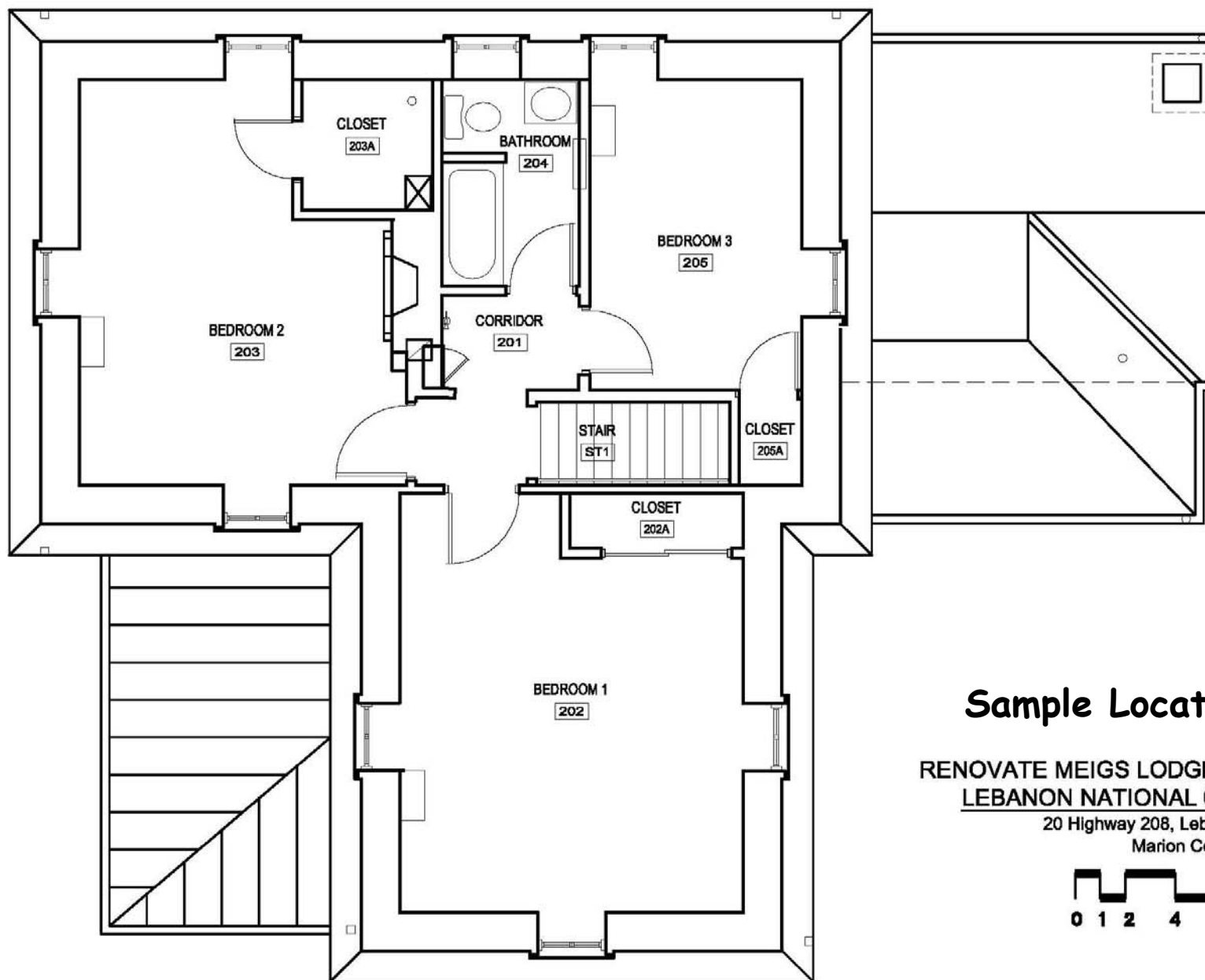
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County, Kentucky



FIRST FLOOR PLAN

SCALE: 3/16" = 1'-0"





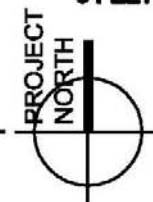
Sample Locations

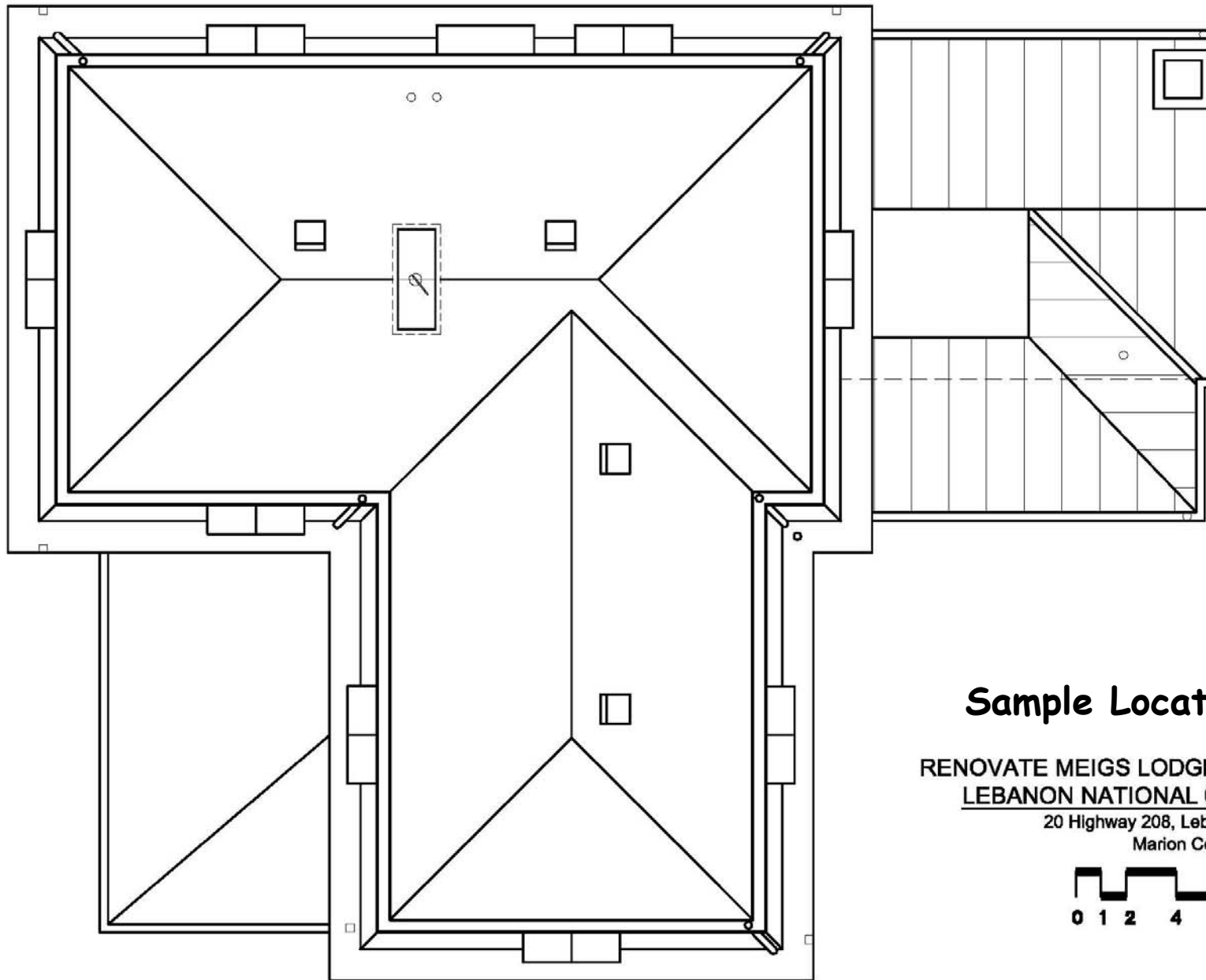
RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County, Kentucky



SECOND FLOOR PLAN

SCALE: 3/16" = 1'-0"





Sample Locations

RENOVATE MEIGS LODGE BUILDING
LEBANON NATIONAL CEMETERY
20 Highway 208, Lebanon, KY 40033
Marion County , Kentucky



ROOF PLAN

SCALE: 3/16" = 1'-0"



LEAD-BASED PAINT INSPECTION REPORT

**National Veterans Cemetery
20, Highway 208
Lebanon, Ky.**

**Project Number: 57122
June, 2002**

Prepared For:

**Mr. Gary Peak
Zachary Taylor National Cemetery
4701 Brownsboro Road
Louisville, Kentucky
(502) 893-3852**

By:

**Micro-Analytics, Inc.
3310-C Gilmore Industrial Blvd.
Louisville, Kentucky 40213
(502) 964-8737**

Lead Based Paint Inspection Report Table of Contents

Lead Inspection Final Summary Report	1
Introduction	2
Procedure	2
Results	3
Conclusion	3
Limitations	3

Appendix

- A - Lead Based Paint Inspection Log**
- B - Inspectors Certificate**
- C - Drawing**

Lead Inspection Final Summary Report
June 14, 2002
Project # 57122

XRF Manufacturer: Niton Corporation
XRF Serial No: XL309-U1142D4512
Model No: 309
License No: 401-675-20
Operator: Sonny Jeffries
KY Certification No: 40-023
Inspection Date: June 14, 2002
Inspection Site: 20 Hwy. 208
 Lebanon, KY 40031
Age of Dwelling Built before 1978

62 testing combinations were tested within the above-identified dwelling. Twelve (28) components contained lead in excess of 1.0 mg/cm². Testing was limited to the exterior of the buildings

Maintenance Building and Lodge:

Room Equivalent	Substrate	Component	Slide	Color
Exterior	Wood	Door casings	A	White
Exterior	Wood	Window casings, troughs	A, C	White
Exterior	Wood	Door, casing, stoop	A	White
Exterior	Wood	Wall	C	Red
Exterior	Wood	Soffit, eve	C	White
Exterior	Metal	Roof	C	Green
Exterior Lodge	Stone, Concrete	Window trough, header,	A, B, C, D	White
Exterior	Aluminum	Soffit, eves	A, B, C, D	White
Exterior	Aluminum	Porch ceiling, eve, soffit	A	White
Exterior	Concrete	Walls	B	White, Blue
Exterior	Metal	Roof	A, B, C,	Silver

INTRODUCTION

Micro-Analytics Inc. was contracted by the Zachary Taylor National Cemetery to perform a lead-based paint inspection limited to exterior surfaces at National Veterans Cemetery located at 20, Hwy 208 in Lebanon, Kentucky. The dwellings were constructed prior to 1978.

Sonny Jeffries of Micro-Analytics, Inc., a Kentucky Certified Lead Hazard Inspector (40-023) conducted the inspection activities. The Lead Hazard Inspection was performed in compliance with federal EPA rules, identified in 40 CFR Part 745.227- Work practice standards for conducting lead-based paint activities: target housing and child occupied facilities.

The survey was conducted on June 14, 2002. Micro-Analytics, Inc. has no knowledge of any prior lead-based paint testing activities at the subject property.

PROCEDURE

Measurements of lead in paint were made by a Kentucky certified lead-based paint inspector using an XRF analyzer and a protocol based on the 1997 Housing Urban Development (HUD) Guideline inspection procedure. The instrument used was a Niton XL-309 Lead Paint Detector and Complete Lead Analyzer XRF (Serial #XL309-U1142D4512). The Niton XL-309 does not require making substrate corrections, nor have an inconclusive range. As such, no destructive sampling was required on painted surfaces. One XRF reading was made per painted component on each exterior wall, approximately in the center of a randomly selected quadrant of the total building component surface area. HUD sample data sheets included in this report were used to inventory painted surfaces and XRF results. The HUD 1.0 mg/cm² action level used to define lead-based paints was utilized on this project.

RESULTS

Lodge (Exterior)

All Window components, Soffits, eaves, porch ceiling, walls, and metal roof tested positive for lead-based paint

Maintenance building

All original door components, window components, soffits, eaves, and metal covered roof tested positive for lead-based paint.

CONCLUSION

The identified exterior lead-based paint on the Lodge was in fair condition. The identified exterior lead-based paint on the Maintenance building was in poor condition at the time

of inspection. Lead-based paint was confirmed on all original wood, concrete, and stone surfaces of both buildings.

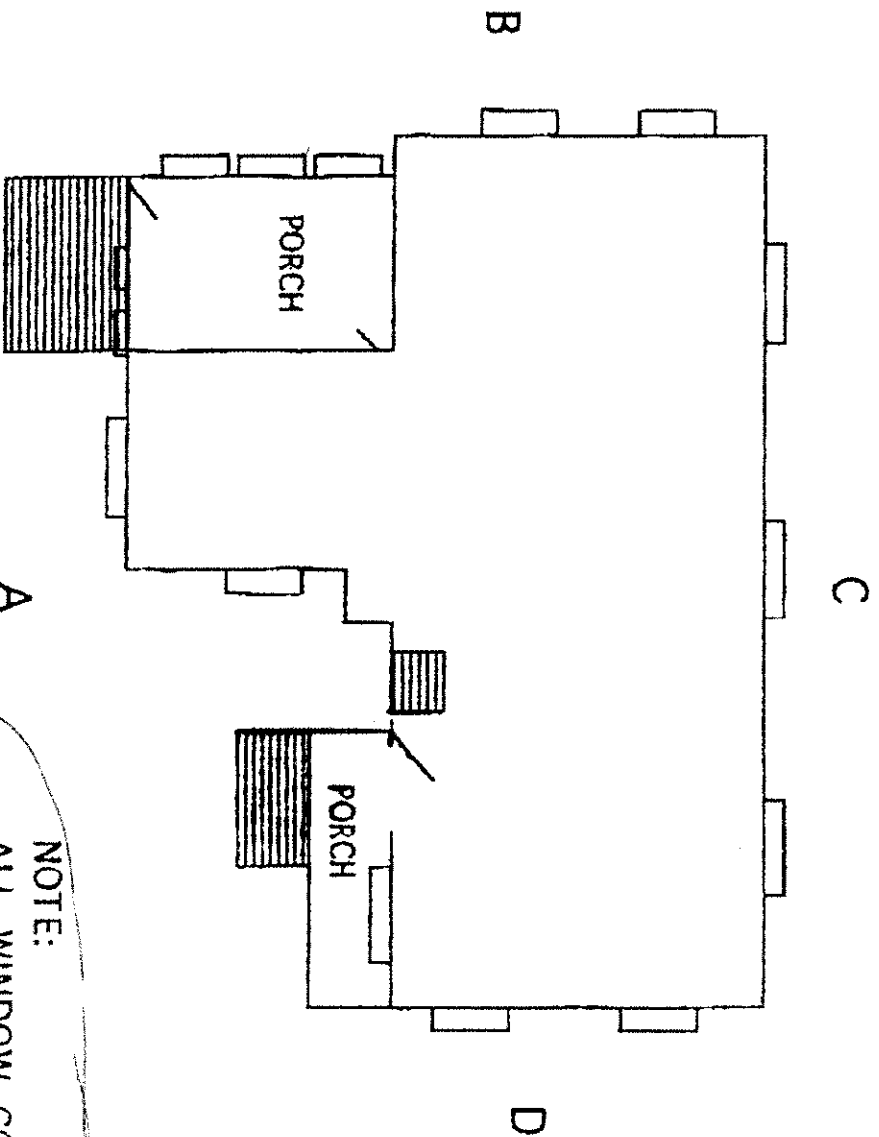
Regulatory requirements with respect to lead and lead abatement on construction projects are covered under two existing federal regulations. Worker protection and work practices are governed under the rules of the Department of Labor, Occupational Safety and Health Administration (OSHA) through the rules found in the Code of Federal Regulations at 40 CFR Part 1926.62, as published in the Federal Register on Tuesday, May 4, 1993. Disposal of lead-containing wastes are regulated under the Resource Conservation and Recovery Act (RCRA) with rules published in the Code of Federal Regulations at 40 CFR Parts 260-268. Neither of these rules is driven by the amount of lead present in the actual surface coating. Technically, the presence of lead in the paint in any quantity triggers applicability of these regulations. The indicator for requiring worker protection under the OSHA regulations is the airborne concentration of lead to which an employee is exposed during an 8-hour work shift is 50 ug/M3 as a time weighted average (TWA). The action level for employee exposure to lead is 30 ug/m3 calculated as an 8-hour TWA.

LIMITATIONS

1. The certification of the Environmental Inspector appearing in the environmental inspection report is subject to the following conditions and to such other specific and limiting conditions as are set forth in the project description.
2. The inspection and inspection report are made by the Inspector solely for the benefit and personal use of the Zachary Taylor Cemetery and any group or entity that is owned, controlled, or associated with them in connection with the subject property. No disclosure may be made of the inspection report without prior written consent of the Inspector.
3. The results of this inspection cannot be construed as a certification of the absence of any contaminants from the property, but rather a diligent and prudent review of data within an established scope of work.
4. This study has been performed in accordance with HUD/EPA lead testing protocol for single-family housing. The scope of this report reflects the standards of care and diligence, which are considered to be representative of environmental engineering practices at the present time.

Signature of Inspector

Date of Signature



LODGE BUILDING

NOTE:
ALL WINDOW COMPONENTS,
SOFFETS, EVES, PORCH CEILING,
AND METAL ROOFING TESTED
POSITIVE FOR LEAD-BASED
PAINT

MICRO-ANALYTICS INC.
3310-C GILMORE INDUSTRIAL BLVD.
LOUISVILLE, KY. 40213-4108

NATIONAL VETERANS CEMETERY LEBANON, KENTUCKY
PDL# 57122
DRAWN BY: SONNY JEFFRIES
DATE: 06-15-02