



Environmental Monitoring, LLC.

6548 SW 131st Place Ocala, Florida 34473

◆Asbestos, Lead Paint and Construction Air Monitoring ◆Consulting ◆Bulk Sampling for Laboratory Analysis◆
(352) 203-4081 email: robpo3@gmail.com or rasmussen72@gmail.com

December 11, 2025

Client: City of Ocala
Community Development Services Department
201 SE 3rd St.
Ocala, FL 34471

Project: LEAD - BASED PAINT INSPECTION REPORT
Sheryl Martin
1213 NW 9th St.
Ocala, FL 34475



According to your instructions **PbO₃** Environmental Monitoring, LLC. has completed a LEAD-BASED PAINT INSPECTION of the subject property. The following pages of this report contain the results of this Inspection.

This report is intended for the exclusive use of our client under the terms and conditions of our agreement. The findings are relevant to the conditions observed during the physical process of performing the Inspection. These findings should not be treated as absolute, nor should they be relied upon to represent conditions at significantly later dates. Any other use, reuse, in whole or in part without the expressed written permission of PbO₃ Environmental Monitoring, LLC. is strictly forbidden.

PbO₃ Environmental Monitoring, LLC.

Robert Rasmussen
Risk Assessor

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1. SUMMARY of FINDINGS

According to your instructions **PbO₃** Environmental Monitoring, LLC. of 6548 SW 131st Place Ocala, Florida has completed a LEAD-BASED PAINT INSPECTION of the subject property. The inspection was conducted on December 10, 2025. The Inspection was performed by Julian Spadt, Lead Risk Assessor(s) (certifications on file). This lead-based paint inspection did not include such items as water sampling, soils, mini blinds, lead dust analysis, furniture, bathroom and/or floor tile-except as noted in this report. Non-painted components, such as ceramic tile and vinyl baseboards, were not tested. Factory finish components or paneled areas such as walls, vent covers, countertops, exhaust hood covers, mailboxes, sinks, electrical panels, closet clothing bars, and light fixtures, etc., were not tested unless they were painted.

Ceramic Tile may be a Lead Containing Material such as that found in many Ceramic Tile glazes. Secondary Coverings such as drop ceilings, paneling, vinyl siding, wallpaper, furniture, clutter, etc. may conceal painted components, which were not accessible during this inspection. Care must be taken not to disturb concealed components unless it is determined that they do not contain lead-based paint.

The data in this report represents the entire scope of services for this Inspection. Conclusions drawn or opinions formed by others from this data are their own, and shall in no way obligate **PbO₃** Environmental Monitoring, LLC.

To the best of our knowledge and belief, the data contained herein is true and correct as represented. However, this should not be considered an undertaking where lead hazards are identified nor should any warranty, or guarantee, of suitability be assumed.

When evaluating this report, it is assumed as per HUD's "Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing", Chapter 7, that if one testing combination (ex: living room/window sill/wood) in an interior or exterior room equivalent is found to be positive for lead-based paint, then all other similar testing combinations in that room equivalent are also assumed to be positive for lead-based paint. The exception to this assumption is when 100% of the similar testing combinations in the room equivalent are tested.

Summary of the Findings

Test Method Performed	No. of Samples	No. above Action Level and/or Positive	No. below Action Level and/or Negative
X-ray Fluorescence	129	0	129

Notes

- All windows are aluminum.
- All interior doors are unpainted wood.
- Room 6-Window Casings are unpainted wood.

Results

The Lead Inspection of the subject property showed that **LEAD-BASED PAINT** (as defined in Title X of the 1992 Housing and Community Development Act -equal to or greater than **1.0 mg/cm²**) **WAS NOT FOUND** in the sample locations tested.

Conclusion

We can conclude that **LEAD-BASED PAINT** (as defined in Title X of the 1992 Housing and Community Development Act) was not detected. **NO FURTHER ACTION** required.

*The results of this inspection indicate that **no lead in amounts greater than or equal to 1.0 mg/cm²** in paint was found on any building components using the inspection protocol in Chapter 7 of the HUD Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing (1997 Revision). Therefore, this dwelling **qualifies for the exemption** in 24 CFR part 35 and 40 CFR part 745 for target housing being leased that is free of lead-based paint, as defined in the rule. **However, some painted surfaces may contain levels of lead below 1.0 mg/cm², which could create lead dust or lead-contaminated soil hazards if the paint is turned into dust by abrasion, scraping, or sanding.** This report should be kept by the owner and all future owners for the life of the dwelling.*

Recommendations

1. Notify the owner of the results of this inspection.

“A copy of this summary must be provided to new lessees (tenants) and purchasers of this property under Federal law (24 CFR part 35 and 40 CFR part 745) before they become obligated under a lease or sales contract. The complete report must also be provided to new purchasers, and it must be made available to new tenants. Landlords (lessors) and sellers are also required to distribute an educational pamphlet approved by the U.S. Environmental Protection Agency and include standard warning language in their leases or sales contracts to ensure that parents have information they need to protect their children from lead-based paint hazards”¹

¹ U.S. Department of Housing and Urban Development – “Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing”- Chapter 7

2. REPORT

Purpose

The purpose of this Inspection is to identify and determine the presence or absence of lead-based paint as defined by The U.S. Department Of Housing And Urban Development publication "The Guidelines For The Evaluation And Control Of Lead - Based Paint Hazards in Housing" June 1995. "The Guidelines" were developed pursuant to Section 1017 of Title X, the Residential Lead Based Paint Hazard Reduction Act of 1992, requiring the EPA to develop health- based standards for paint, dust, and soil.

Definition of "Lead - Based Paint Hazard"

Title X redefines the concept of "lead-based paint." Under prior Federal legislation, a lead-based paint was any paint with **1.0 mg/cm²** or more of lead, regardless of paint condition or location. Title X states that a lead-based paint hazard is "any condition that causes *exposure* to lead . . . that would result in adverse human health effects" from:

- Lead-contaminated dust
- Bare, lead-contaminated soil
- Lead-contaminated paint that is deteriorated or present on accessible surfaces, friction surfaces, or impact surfaces.

Title X acknowledges that some lead-based paint hazards are of more immediate concern than others. In these *Guidelines* the hazards considered to be of greatest immediate concern are those to which children are most exposed: lead-contaminated dust; deteriorated lead-based paint; and lead-contaminated soil if it is bare, accessible to young children, and/or likely to be blown or tracked into the dwelling. Also of concern is friction, chewable, and impact surfaces with intact lead-based paint. Friction surfaces are subject to abrasion and may generate lead-contaminated dust in the dwelling; chewable surfaces are protruding surfaces that are easily chewed on by young children; and impact surfaces may become deteriorated through forceful contact. Intact lead-based paint on flat surfaces not subject to abrasion, impact, or other disturbances, although of less concern, is still a potential hazard because the paint could deteriorate over time as a result of age, disturbance (through renovation and repair) or major casualty (such as fire, storms, and water leaks).

Lead - based paint is any paint, varnish, stain, or other applied coating that has 1 mg/cm² (or 5,000 parts per million) or more of lead. For the purposes of these *Guidelines* the terms "leaded paint" and "lead-containing paint" are synonymous with "lead-based paint".

A lead - based paint hazard may be interpreted by environmental sampling for lead dust. If lead dust samples collected by wipe sampling exceed the levels established by HUD, a lead - based paint hazard exists.

Lead Testing Methods

Lead-Based Paint, X-Ray Fluorescence (XRF)

XRF testing is performed to detect the presence of lead on painted surfaces. XRF testing is usually the preferred method of testing because it is non-destructive, quantitative and can be performed on the spot with acceptable accuracy. The results of the XRF testing is one of the major sources of gathering evidence for drawing conclusions and making recommendations in the final report. **Pb03** Inspectors follow the manufacturer's suggested use and the Performance Characteristic Sheet of the XRF instrument being used. **Pb03** currently uses the NITON XL Spectrum Analyzer with automatic substrate correction, software downloading capabilities, 3/8-inch penetration capabilities, and many more sophisticated advantages.

In performing XRF testing all **Pb03** Inspectors follow the Department of Housing and Urban Developments federal guidelines for testing lead by using an XRF instrument. All state and city regulations are followed when applicable and, in

all cases, the most stringent regulation is followed. **Pb03** Inspectors test one of each and every different type of accessible testing combination in each room being inspected or as described in our client services agreement. Testing procedures for XRF testing are usually performed from left to right by room and within each room left to right by component. The testing format is followed unless otherwise noted. Each XRF reading is assigned an exclusive reference number and a measurement that is stored in the instrument. Each reference number location is logged on the data sheets for future reference, testing location and report generation.

Current action levels for lead-based paint testing using XRF vary from state to state. The federal level is currently 1.0 mg/cm².

See Appendix A for LEAD PAINT INSPECTION REPORT DATA SHEETS for measurement, location, substrate, and surfaces tested.

Dust Wipes

Dust wipes are taken after the initial inspection (if applicable), to determine current levels of lead dust (Risk Assessment), during interim controls (regularly scheduled sampling), or after an abatement activity to determine the post abatement levels. Dust wipes are typically taken from three different places: Floor, Window Troughs and Windowsills. The lead dust levels will determine if a Lead Hazard exists and will help in the decision-making process as to what forms of interim controls are needed.

Lead, like iron, oxidizes, though when iron oxidizes it forms rust, and when lead oxidizes it will form lead carbonate. Some people call the lead carbonate "chalking" of the lead. Inhaling or ingesting lead carbonate can be as dangerous as eating a lead paint chip. Most people are unaware that a small child does not have to eat paint chips to acquire an elevated blood lead level (EBL). The hand-to-mouth activity of a crawling child in an area with lead dust can induce Lead Poisoning. Lead dust problems can also place the occupants and participants at risk during *renovation* and/or *construction* activities.

Pb03 believes that high lead dust levels pose a greater health threat than the mere presence of intact lead-based paint. Consequently, we strongly suggest regularly scheduled monitoring by lead dust wipes, until full abatement is completed.

Revised Dust-Lead Hazard Standards (DLHS) as of January 06, 2020;

Current Action Levels for lead in dust:	Interior Floor ≥ 10 ug/ft ²	Porch Floor ≥ 40 ug/ft ²
	Windowsill ≥ 100 ug/ft ²	Troughs ≥ 100 ug/ft ²
Current Action Level Soil for children play areas	Greater than 400 PPM	

Soil

Soil samples are usually taken after the initial inspection (if applicable), to determine the current level of lead in the soil and after any exterior abatement (including pressure washing) or renovation activities have taken place. **Pb03** Inspectors take the soil samples from the side of a property and other areas of concern that are most likely to have a possible elevated lead level. A typical soil sample is collected by taking multiple spoonful's of soil from one side of a piece of property typically along a straight line and a half-inch deep. By performing our sampling in this fashion, we are acquiring a representative sample from a specific side of the property.

EPA recommends the following action levels for lead in soil.

	<u>Action Level</u>	
Children play areas	Greater than 400 PPM	Interim controls.
Non-children play areas	Greater than 2000 PPM	Interim controls.
All areas of exposed soil	Greater than 5000 PPM	Permanent Barrier or Abatement.

Paint Chips

Paint chips are used for confirmation of lead-based paint as part of an inspection (if applicable), **or** as a solution to inconclusive measurement recorded by the use of XRF testing. Paint chips are typically not taken unless absolutely necessary. Every time a paint chip is taken the painted surface must be disturbed, and this leaves the potential for additional lead contamination. When Paint chips are taken, they are usually from non-conspicuous areas and tape is placed over the removed paint location. The paint chips are then sent to the laboratory for analysis.

Current action levels for lead in paint:

*0.5% by weight or 5,000 PPM (parts per million) Weighted concentration
1.0 mg/cm² Loading concentration (by XRF)*

See summary results for chips, wipes, soil & water (if applicable).

Water

Water samples are collected to determine if lead is present in the water system. Two water samples are usually collected, a first draw and a two-minute draw. The first draw is the first draw of the day; it allows for the longest duration of time to allow any sediment in the water lines to collect and typically, if lead is present in the system, gives the highest results. The second sample is drawn after the cold-water tap has been turned on for two minutes. The second draw allows the tap time to flush itself from any particles that might have accumulated while the line was dormant. By taking two samples **PbO₃** Inspectors are better able to assess if there is possible water contamination due to lead and where it might be coming from. If the first draw is high and the second draw is low, it probably means that the lead is coming from the property's plumbing. If both samples produce high levels, the problem is probably coming from the municipal water lines or both.

Current action levels for lead in water:

15 to 20 ppb (parts per billion)

See summary results for chips, wipes, soil & water (if applicable).

Methodology Used

This Inspection has been conducted utilizing an established protocol. The protocol contains four components.

1. Perform a visual assessment of the subject property and paint condition.
2. Calibrate Niton XL XRF # 92540
3. Test building components.
All room equivalents (e.g., room, house exterior, foyer, etc.) are tested. All testing combinations within each room equivalent are tested. All painted surfaces (surfaces coated with paint, shellac, varnish, stain, paint covered with wallpaper, or any other coating) are tested.

At least one XRF reading on each testing combination in each room equivalent are tested. For walls, at least one reading on each wall in a room equivalent is tested.

Certain building components that are adjacent to each other and not likely to have different painting histories can be grouped together into a single testing combination, as follows:

Window casings, stops, jambs and aprons are a single testing combination.

Interior window mullions and window sashes are a single testing combination – we do not group interior mullion and sashes with exterior mullions and sashes.

Exterior window mullions and window sashes are a single testing combination.

Door jambs, stops, transforms, casings, and other door frame parts are a single testing combination.

Door stiles, rails, panels, mullions, and other door parts are a single testing combination.

Baseboards and associated trim, (such as quarter-round or other caps) are a single testing combination (do not group chair rails, crown molding or walls with baseboards).

Painted electrical sockets, switches or plates can be grouped with walls.

Each of these building parts should be tested separately if there is some specific reason to believe that they have a different painting history. In most cases, separate testing will not be necessary.

Building Component Types – A building component type consists of doors, windows, walls, and so on that are repeated in more than one room equivalent in a unit and have a common substrate. If a unique building component is present in only one room, it is considered to be a testing combination. Each testing combination may be composed of more than one building component (such as two similar windows within a room equivalent). Component types can be located inside or outside the dwelling. For example, typical component types in a bedroom would be the ceiling, walls, a door and its casing, the window sash, window casings, and any other distinct surface such as baseboards, crown molding, and chair rails. If trends or patterns of lead-based paint classifications are found among building component types in different room equivalents, an inspection report may summarize results by building component type, as long as all measurements are included in the report. For example, the inspection may find that all doors and casings in a dwelling unit are positive.

4. A compilation of the findings of the Inspection into a report format, which is usable to the client.

APPROXIMATE COST ESTIMATES FOR REMEDIATION

The price estimates below are based on numerous assumptions and variables that are ever changing. The cost estimates are only estimates and should not be considered final and absolute costs to remediate the property inspected of any lead hazards found. **PbO3** estimates are based on average industry prices for the median cost option for various components. Dependent on the course of action the particular property uses to remediate, the price estimates may vary greatly from actual cost proposals.

Approximate abatement costs (per component):

Item Description	No. of Items	Cost per Item*	Total Cost
Remove &replace Window/per window		\$ 400.00	\$ -
Exterior Door/per door		\$ 500.00	\$ -
Interior Door/per door		\$ 200.00	\$ -
Exterior Siding/per Sq Ft		\$ 5.00	\$ -
Interior enclosure/per Sq Ft		\$ 4.00	\$ -
Exterior stripping/per Sq Ft		\$ 9.00	\$ -
Interior Stripping/per Sq Ft		\$ 10.00	\$ -
Replacement of molding/per LF		\$ 6.00	\$ -
Exterior encapsulation/Sq Ft		\$ 4.50	\$ -
Interior encapsulation/Sq Ft		\$ 3.00	\$ -
HEPA vacuuming/Sq Ft		\$ 1.00	\$ -
TSP or Ledizolv washing/Sq Ft		\$ 1.00	\$ -
			\$ -
			\$ -
			\$ -
Total Estimated Costs			\$ -

*Above pricing includes the cost of post abatement cleanups.

APPENDIX A

LEAD SURVEY DATA PAGES

When reviewing "Appendix A Lead Survey Data Pages" you will notice that the components tested are described using the letters A, B, C and D, under the "Surface" column, to designate the walls of the related room. When entering the room, the first wall that is in the same plain or closest to the street address of the property is considered to be "A-wall", "B-wall", "C-wall", and "D-wall" run clockwise.

Lead paint testing using XRF technology results are provided on the attached tables. Per this type of analytical methodology, XRF values tend to vary slightly for lead detected on the same surface, within the parameters of the instrumentation and the paint history of the testing combination. If a component is not shown on the data pages, the assumption should not be made that the particular component is lead safe. The only way to determine the presence of lead on a component is to have it tested.

Note: Negative values in Column mg/cm² (PbC) are likely due to XRF interference and are typically not of concern unless more than 20% of the readings are negative.

Reading No	Time	COMPONENT	FEATURE	SUBSTRATE	SIDE	COLOR	CONDITION	ROOM	Results	PbC
712	12/10/2025 14:51	CALIBRATE							Positive	1
713	12/10/2025 14:51	CALIBRATE							Positive	1.6
714	12/10/2025 14:51	CALIBRATE							Negative	0
715	12/10/2025 14:55	WALL	WALL	DRYWALL	A	WHITE	INTACT	1	Negative	0.03
716	12/10/2025 14:55	WALL	WALL	WOOD	B	WHITE	INTACT	1	Negative	0.03
717	12/10/2025 14:55	WALL	WALL	BLOCK	C	PURPLE	INTACT	1	Negative	0.03
718	12/10/2025 14:55	WALL	WALL	BLOCK	D	PURPLE	INTACT	1	Negative	0.03
719	12/10/2025 14:56	CLOSET	WALL	WOOD	A	BEIGE	INTACT	1	Negative	0.03
720	12/10/2025 14:56	DOOR	CASING	WOOD	A	OFF WHITE	INTACT	1	Negative	0.03
721	12/10/2025 14:57	DOOR	CASING	WOOD	A	OFF WHITE	INTACT	1	Negative	0.04
722	12/10/2025 14:57	DOOR	CASING	WOOD	A	OFF WHITE	INTACT	1	Negative	0.03
723	12/10/2025 14:57	DOOR	CASING	WOOD	A	OFF WHITE	INTACT	1	Negative	0.03
724	12/10/2025 14:57	WINDOW	CASING	WOOD	C	OFF WHITE	INTACT	1	Negative	0.03
725	12/10/2025 14:58	WINDOW	CASING	WOOD	D	OFF WHITE	INTACT	1	Negative	0.16
726	12/10/2025 14:58	CEILING	WALL	WOOD	D	OFF WHITE	INTACT	1	Negative	0.08
727	12/10/2025 14:58	CEILING	UPPER TRIM	WOOD	D	OFF WHITE	INTACT	1	Negative	0.03
728	12/10/2025 14:59	CEILING	UPPER TRIM	WOOD	D	OFF WHITE	INTACT	1	Negative	0.03
729	12/10/2025 15:00	WALL	WALL	WOOD	A	MULTI	INTACT	2	Negative	0.03
730	12/10/2025 15:00	WALL	WALL	WOOD	B	MULTI	INTACT	2	Negative	0.03
731	12/10/2025 15:00	WALL	WALL	WOOD	C	MULTI	INTACT	2	Negative	0.03
732	12/10/2025 15:01	WALL	WALL	BLOCK	D	BLUE	INTACT	2	Negative	0.11
733	12/10/2025 15:01	DOOR	CASING	WOOD	B	OFF WHITE	INTACT	2	Negative	0.04
734	12/10/2025 15:01	DOOR	CASING	WOOD	B	OFF WHITE	INTACT	2	Negative	0.03
735	12/10/2025 15:01	DOOR	CASING	WOOD	B	OFF WHITE	INTACT	2	Negative	0.03
736	12/10/2025 15:01	DOOR	CASING	WOOD	B	OFF WHITE	INTACT	2	Negative	0.03
737	12/10/2025 15:02	WINDOW	CASING	WOOD	D	OFF WHITE	INTACT	2	Negative	0.03
738	12/10/2025 15:02	BASEBOARD	BASEBOARD	WOOD	D	PINK	INTACT	2	Negative	0.03
739	12/10/2025 15:02	WALL	UPPER TRIM	WOOD	D	PINK	INTACT	2	Negative	0.03
740	12/10/2025 15:03	WALL	UPPER TRIM	WOOD	D	BLUE	INTACT	2	Negative	0.03
741	12/10/2025 15:03	WALL	UPPER TRIM	WOOD	D	WHITE	INTACT	2	Negative	0.03
742	12/10/2025 15:03	CEILING	UPPER TRIM	WOOD	D	WHITE	INTACT	2	Negative	0.23
743	12/10/2025 15:03	CEILING	WALL	WOOD	D	WHITE	INTACT	2	Negative	0.03
744	12/10/2025 15:05	WALL	WALL	BLOCK	A	GRAY	INTACT	3	Negative	0.03
745	12/10/2025 15:05	WALL	WALL	WOOD	B	GRAY	INTACT	3	Negative	0.05
746	12/10/2025 15:06	WALL	WALL	DRYWALL	C	MULTI	INTACT	3	Negative	0.03
747	12/10/2025 15:06	WALL	WALL	BLOCK	D	GRAY	INTACT	3	Negative	0.03
748	12/10/2025 15:07	WINDOW	CASING	BLOCK	A	GRAY	INTACT	3	Negative	0.03
749	12/10/2025 15:07	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	3	Negative	0.03
750	12/10/2025 15:07	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	3	Negative	0.03
751	12/10/2025 15:07	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	3	Negative	0.03
752	12/10/2025 15:07	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	3	Negative	0.04
753	12/10/2025 15:08	CLOSET	WALL	WOOD	C	BEIGE	INTACT	3	Negative	0.03

Reading No	Time	COMPONENT	FEATURE	SUBSTRATE	SIDE	COLOR	CONDITION	ROOM	Results	PbC
754	12/10/2025 15:08	WINDOW	CASING	BLOCK	D	GRAY	INTACT	3	Negative	0.03
755	12/10/2025 15:09	BASEBOARD	BASEBOARD	WOOD	D	OFF WHITE	INTACT	3	Negative	0.03
756	12/10/2025 15:09	WALL	UPPER TRIM	WOOD	D	OFF WHITE	INTACT	3	Negative	0.03
757	12/10/2025 15:09	CEILING	WALL	WOOD	D	OFF WHITE	INTACT	3	Negative	0.03
758	12/10/2025 15:10	WALL	WALL	BLOCK	A	GRAY	INTACT	4	Negative	0.03
759	12/10/2025 15:10	WALL	WALL	BLOCK	B	GRAY	INTACT	4	Negative	0.03
760	12/10/2025 15:10	WALL	WALL	WOOD	C	VARNISH	INTACT	4	Negative	0.05
761	12/10/2025 15:11	WALL	WALL	WOOD	D	VARNISH	INTACT	4	Negative	0.11
762	12/10/2025 15:11	DOOR	CASING	WOOD	A	GREEN	INTACT	4	Negative	0.05
763	12/10/2025 15:11	DOOR	CASING	WOOD	A	GREEN	INTACT	4	Negative	0.04
764	12/10/2025 15:11	DOOR	DOOR	METAL	A	GREEN	INTACT	4	Negative	0.03
765	12/10/2025 15:12	DOOR	DOOR	METAL	A	WHITE	INTACT	4	Negative	0.03
766	12/10/2025 15:12	WINDOW	CASING	WOOD	A	WHITE	INTACT	4	Negative	0.03
767	12/10/2025 15:12	WINDOW	CASING	BLOCK	A	WHITE	INTACT	4	Negative	0.03
768	12/10/2025 15:13	WINDOW	CASING	BLOCK	B	WHITE	INTACT	4	Negative	0.03
769	12/10/2025 15:13	WINDOW	CASING	WOOD	B	WHITE	INTACT	4	Negative	0.03
770	12/10/2025 15:13	WINDOW	CASING	WOOD	B	WHITE	INTACT	4	Negative	0.03
771	12/10/2025 15:14	DOOR	CASING	WOOD	C	VARNISH	INTACT	4	Negative	0.06
772	12/10/2025 15:14	DOOR	CASING	WOOD	C	VARNISH	INTACT	4	Negative	0.05
773	12/10/2025 15:14	DOOR	CASING	WOOD	C	VARNISH	INTACT	4	Negative	0.19
774	12/10/2025 15:14	DOOR	CASING	WOOD	C	VARNISH	INTACT	4	Negative	0.07
775	12/10/2025 15:14	BASEBOARD	BASEBOARD	WOOD	C	WHITE	INTACT	4	Negative	0.04
776	12/10/2025 15:14	WALL	UPPER TRIM	WOOD	C	WHITE	INTACT	4	Negative	0.3
777	12/10/2025 15:15	CEILING	WALL	WOOD	C	WHITE	INTACT	4	Negative	0.05
778	12/10/2025 15:15	WALL	WALL	WOOD	A	RED	INTACT	5	Negative	0.05
779	12/10/2025 15:16	WALL	WALL	BLOCK	B	GREEN	INTACT	5	Negative	0.3
780	12/10/2025 15:16	WALL	WALL	BLOCK	C	GREEN	INTACT	5	Negative	0.18
781	12/10/2025 15:16	WALL	WALL	WOOD	D	RED	INTACT	5	Negative	0.05
782	12/10/2025 15:17	WINDOW	CASING	WOOD	B	OFF WHITE	INTACT	5	Negative	0.4
783	12/10/2025 15:17	BASEBOARD	BASEBOARD	WOOD	B	OFF WHITE	INTACT	5	Negative	0.04
784	12/10/2025 15:17	WALL	UPPER TRIM	WOOD	B	GREEN	INTACT	5	Negative	0.48
785	12/10/2025 15:18	CEILING	WALL	WOOD	B	GREEN	INTACT	5	Negative	0.42
786	12/10/2025 15:18	WALL	WALL	BLOCK	A	OFF WHITE	INTACT	6	Negative	0.03
787	12/10/2025 15:19	WALL	WALL	WOOD	B	GREEN	INTACT	6	Negative	0.03
788	12/10/2025 15:19	WALL	WALL	WOOD	C	GREEN	INTACT	6	Negative	0.03
789	12/10/2025 15:19	WALL	WALL	WOOD	D	GREEN	INTACT	6	Negative	0.03
790	12/10/2025 15:20	DOOR	DOOR	WOOD	A	OFF WHITE	INTACT	6	Negative	0.21
791	12/10/2025 15:20	DOOR	DOOR	WOOD	A	BLACK	INTACT	6	Negative	0.07
792	12/10/2025 15:20	DOOR	CASING	WOOD	A	BLACK	INTACT	6	Negative	0.12
793	12/10/2025 15:20	DOOR	CASING	WOOD	A	BLACK	INTACT	6	Negative	0.11
794	12/10/2025 15:20	DOOR	CASING	WOOD	A	RED	INTACT	6	Negative	0.04
795	12/10/2025 15:20	DOOR	CASING	WOOD	A	RED	INTACT	6	Negative	0.1

Reading No	Time	COMPONENT	FEATURE	SUBSTRATE	SIDE	COLOR	CONDITION	ROOM	Results	PbC
796	12/10/2025 15:21	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	6	Negative	0.03
797	12/10/2025 15:21	DOOR	CASING	WOOD	C	OFF WHITE	INTACT	6	Negative	0.03
798	12/10/2025 15:22	DOOR	DOOR	METAL	C	OFF WHITE	INTACT	6	Negative	0.05
799	12/10/2025 15:22	WALL	UPPER TRIM	WOOD	C	GREEN	INTACT	6	Negative	0.03
800	12/10/2025 15:22	CEILING	WALL	WOOD	C	GREEN	INTACT	6	Negative	0.03
801	12/10/2025 15:23	WALL	WALL	DRYWALL	A	MULTI	INTACT	7	Negative	0.03
802	12/10/2025 15:23	WALL	WALL	WOOD	B	BROWN	INTACT	7	Negative	0.06
803	12/10/2025 15:24	WALL	WALL	DRYWALL	C	MULTI	INTACT	7	Negative	0.03
804	12/10/2025 15:24	WALL	WALL	DRYWALL	D	MULTI	INTACT	7	Negative	0.03
805	12/10/2025 15:24	BASEBOARD	BASEBOARD	WOOD	D	BROWN	INTACT	7	Negative	0.03
806	12/10/2025 15:24	WALL	UPPER TRIM	WOOD	D	OFF WHITE	INTACT	7	Negative	0.03
807	12/10/2025 15:25	CEILING	WALL	WOOD	D	OFF WHITE	INTACT	7	Negative	0.11
808	12/10/2025 15:27	COLUMN	WALL	METAL	EXT A	GREEN	INTACT	PORCH	Negative	0.03
809	12/10/2025 15:27	CEILING	BEAM	WOOD	EXT A	GREEN	INTACT	PORCH	Negative	0.17
810	12/10/2025 15:28	CEILING	WALL	WOOD	EXT A	GREEN	INTACT	PORCH	Negative	0.05
811	12/10/2025 15:28	CEILING	UPPER TRIM	WOOD	EXT A	GREEN	INTACT	PORCH	Negative	0.05
812	12/10/2025 15:29	WALL	WALL	STUCCO	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.03
813	12/10/2025 15:29	WINDOW	CASING	STUCCO	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.03
814	12/10/2025 15:29	WINDOW	SILL	BLOCK	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.03
815	12/10/2025 15:30	DOOR	CASING	WOOD	EXT A	OFF WHITE	INTACT	EXTERIOR	Negative	0.03
816	12/10/2025 15:31	DOOR	CASING	WOOD	EXT A	OFF WHITE	INTACT	EXTERIOR	Negative	0.03
817	12/10/2025 15:31	DOOR	DOOR	METAL	EXT A	WHITE	INTACT	EXTERIOR	Negative	0.03
818	12/10/2025 15:31	DOOR	DOOR	METAL	EXT A	BEIGE	INTACT	EXTERIOR	Negative	0.03
819	12/10/2025 15:32	GABLE	WALL	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.09
820	12/10/2025 15:32	ROOF	SOFFIT	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.35
821	12/10/2025 15:32	ROOF	SOFFIT	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.11
822	12/10/2025 15:33	ROOF	FASCIA	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.1
823	12/10/2025 15:33	ROOF	RAFTER	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.6
824	12/10/2025 15:34	GABLE	WALL	WOOD	EXT A	GREEN	INTACT	EXTERIOR	Negative	0.51
825	12/10/2025 15:35	WALL	WALL	STUCCO	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.03
826	12/10/2025 15:35	WINDOW	CASING	STUCCO	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.03
827	12/10/2025 15:36	WINDOW	CASING	WOOD	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.03
828	12/10/2025 15:36	WINDOW	SILL	BLOCK	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.06
829	12/10/2025 15:36	WALL	UPPER TRIM	WOOD	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.77
830	12/10/2025 15:37	ROOF	RAFTER	WOOD	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.4
831	12/10/2025 15:37	ROOF	SOFFIT	WOOD	EXT B	GREEN	INTACT	EXTERIOR	Negative	0.3
832	12/10/2025 15:38	WALL	WALL	STUCCO	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.03
833	12/10/2025 15:38	WINDOW	CASING	STUCCO	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.03
834	12/10/2025 15:39	WINDOW	SILL	BLOCK	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.03
835	12/10/2025 15:39	GABLE	WALL	WOOD	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.21
836	12/10/2025 15:40	ROOF	SOFFIT	WOOD	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.3
837	12/10/2025 15:40	ROOF	FASCIA	WOOD	EXT C	GREEN	INTACT	EXTERIOR	Negative	0.07

Reading No	Time	COMPONENT	FEATURE	SUBSTRATE	SIDE	COLOR	CONDITION	ROOM	Results	PbC
838	12/10/2025 15:40	ROOF	SOFFIT	WOOD	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.48
839	12/10/2025 15:41	ROOF	RAFTER	WOOD	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.5
840	12/10/2025 15:41	WALL	UPPER TRIM	WOOD	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.15
841	12/10/2025 15:42	WALL	WALL	STUCCO	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.03
842	12/10/2025 15:42	WINDOW	CASING	STUCCO	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.03
843	12/10/2025 15:42	WINDOW	SILL	BLOCK	EXT D	GREEN	INTACT	EXTERIOR	Negative	0.03
845	12/10/2025 15:43	CALIBRATE							Positive	1
846	12/10/2025 15:43	CALIBRATE							Positive	1.5
847	12/10/2025 15:43	CALIBRATE							Negative	0

APPENDIX B

PHOTOS & DRAWINGS



Side A



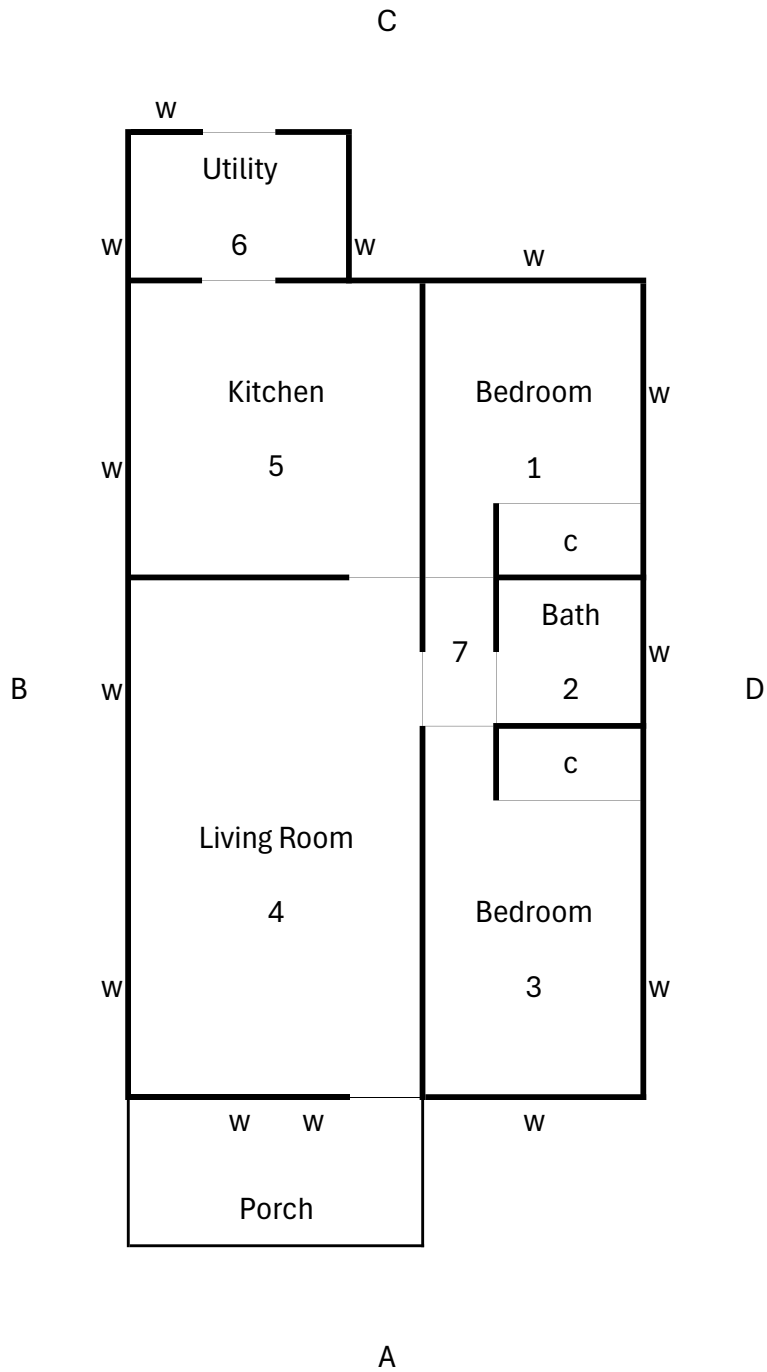
Side B



Side C



Side D



1213 NW 9th St.

Ocala, FL 34475

APPENDIX C

LEAD PRECAUTIONARY PROCEDURES

CONTROLLING LEAD DUST LEVELS

Lead painted surfaces that are renovated or in disrepair can release hazardous lead dust. **PbO₃** advises that abatement and cleanup measures specified in the HUD Guidelines be employed where lead surfaces are disturbed and prior to re-occupancy of affected areas. In such cases, clean-up procedures should be performed by a contractor who can commit to conformance with the HUD Guidelines and Clearance requirements. Lead dust sampling conducted after the abatement will verify the effectiveness of the clean-up measures.

The wipe samples are then analyzed by a laboratory which is approved and accredited by professional organizations to analyze environmental samples for the presence of lead.

MAINTENANCE OF LEAD PAINTED SURFACES

This discussion relates to intact lead painted surfaces.

Government authorities now recognize that even intact lead painted surfaces pose a health risk and should be abated (covered or removed). Accordingly, it is recommended that any lead painted surfaces (particularly surfaces such as protruding windowsills and door stops which children are likely to come into contact with) should be properly abated.

In the absence of full removal or covering of lead paint with impermeable barriers (e.g., sheet rock, encapsulants), it is advisable that a primer and several layers of high-quality paint be applied over intact lead painted surfaces. The following program of inspecting and maintaining such intact painted surfaces can lower the risk of lead dust hazards from lead painted surfaces in a home or work environment.

1. **Avoid any activities that disturb lead-painted surfaces. Even chemical stripping of lead-based paint will generate lead dust.**
2. **Wet wipe surfaces with water containing a detergent called LEDIZOLV (non-TSP biodegradable, metal ionizing lead detergent), with a frequency sufficient to prevent accumulation of dust.**
3. **Frequently survey lead painted surfaces to ensure that they are intact. Problematic surfaces should be abated in conformance with HUD regulations and by a trained professional.**
4. **Avoid the use of regular vacuum cleaners on debris that may contain lead dust. Use of high efficiency particulate air (HEPA) vacuums is recommended, with a frequency sufficient to prevent accumulation of dust. Note: Changing HEPA filters requires that special safety and health precautions be followed.**
5. **Monitor activities of young children. Prevent them from coming into contact with lead painted surfaced as much as possible and regularly wash their hands (especially before they handle food).**
6. **Determine children's blood lead levels, at a frequency prescribed by a physician who specializes in lead poisoning. In cases where concern is raised about potential exposure to lead, **PbO₃** recommends that concerned parties have blood levels analyzed by an OSHA-approved laboratory, and that the results be interpreted by a physician. We recommend routine blood lead testing of children under the age of six.**

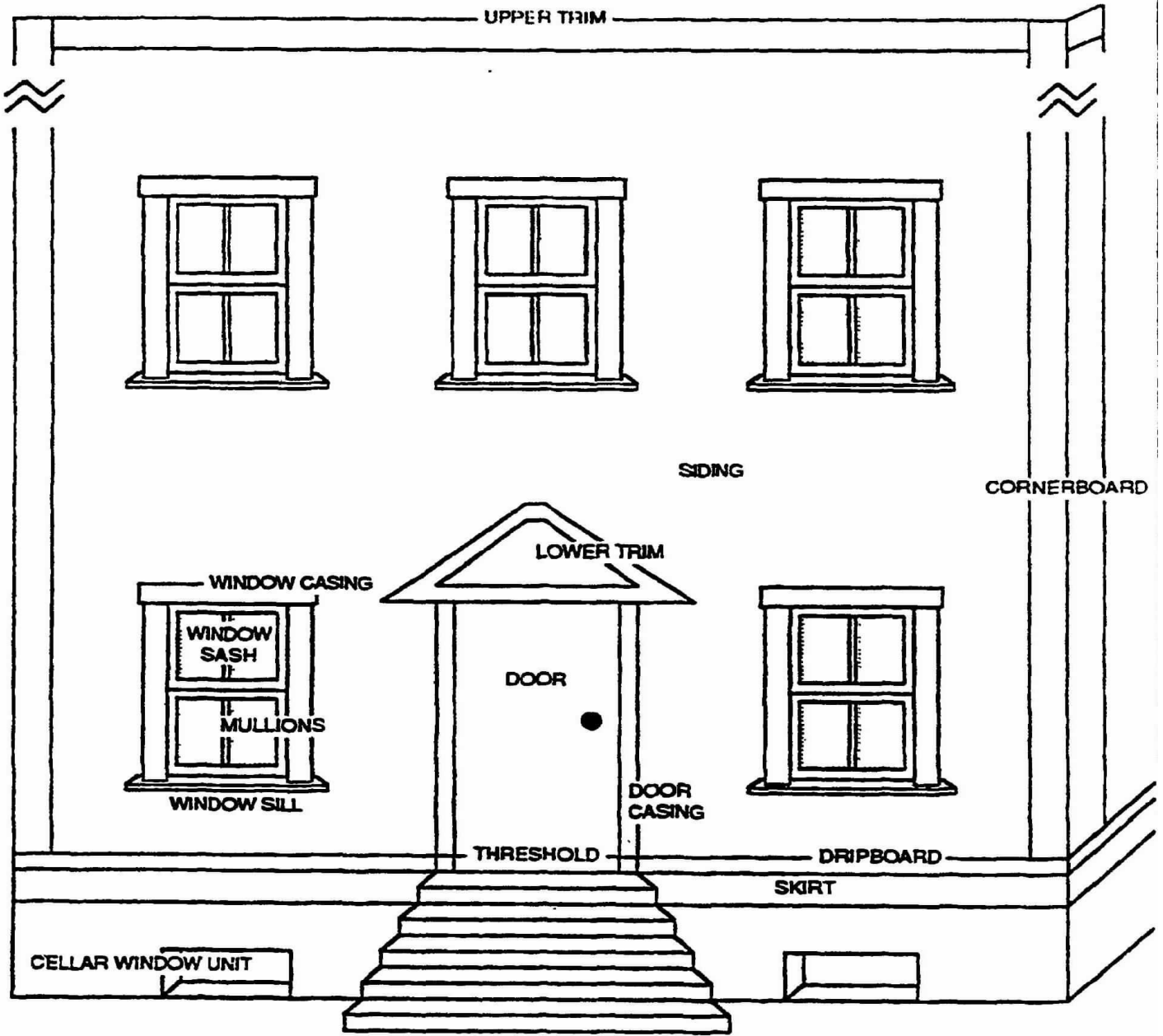
PbO₃ has provided general information on reducing the risk of lead poisoning in both residential and commercial spaces. Detailed Information on avoiding and/or treating lead poisoning can be obtained without cost from: The National Center for Education in Maternal and Child Health, 38th and R Street, NW, Washington D.C. 20057, phone (703) 524-7802.

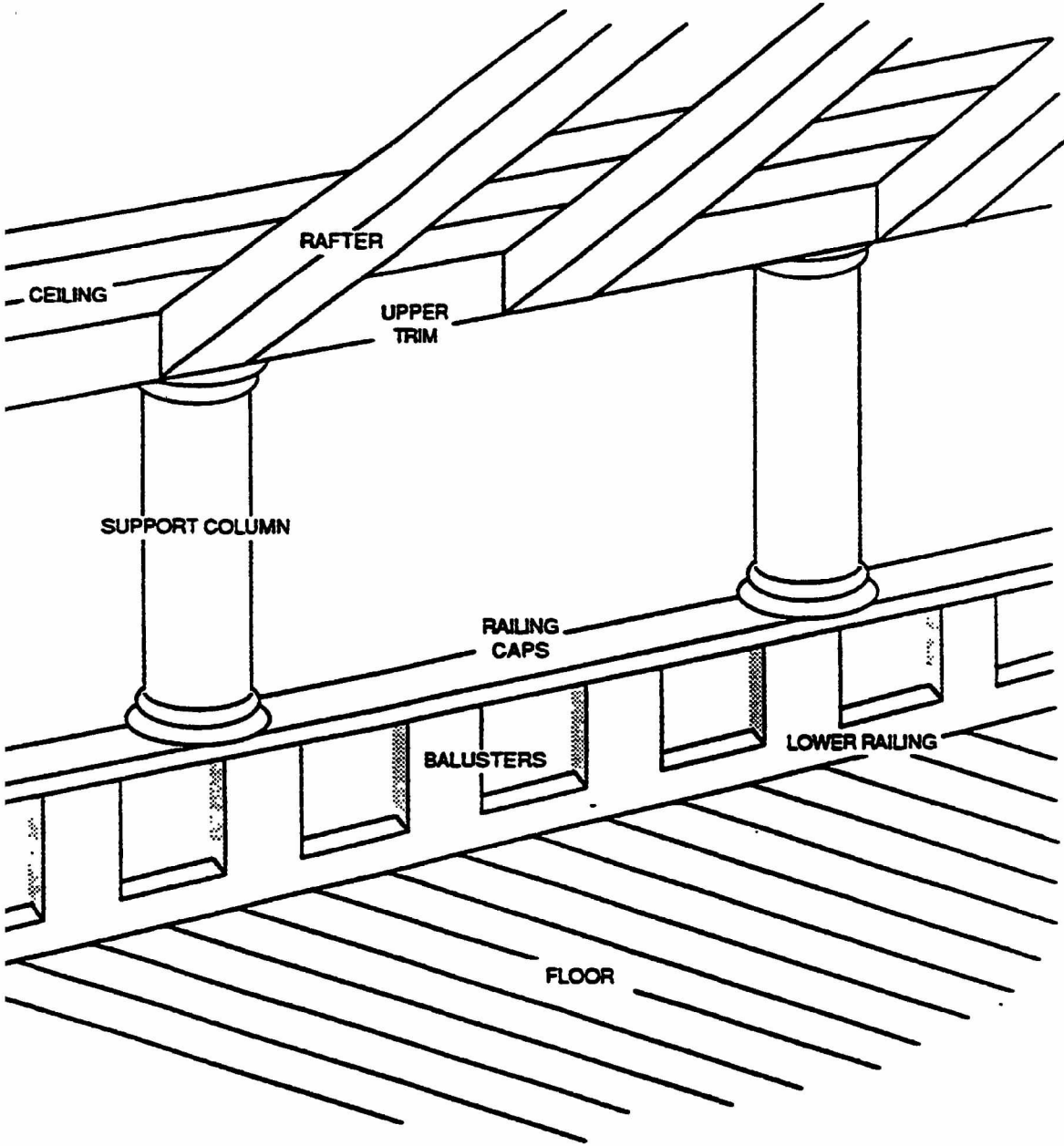
Please call the **PbO₃** if you have any questions regarding this report, (352) 203-4081.

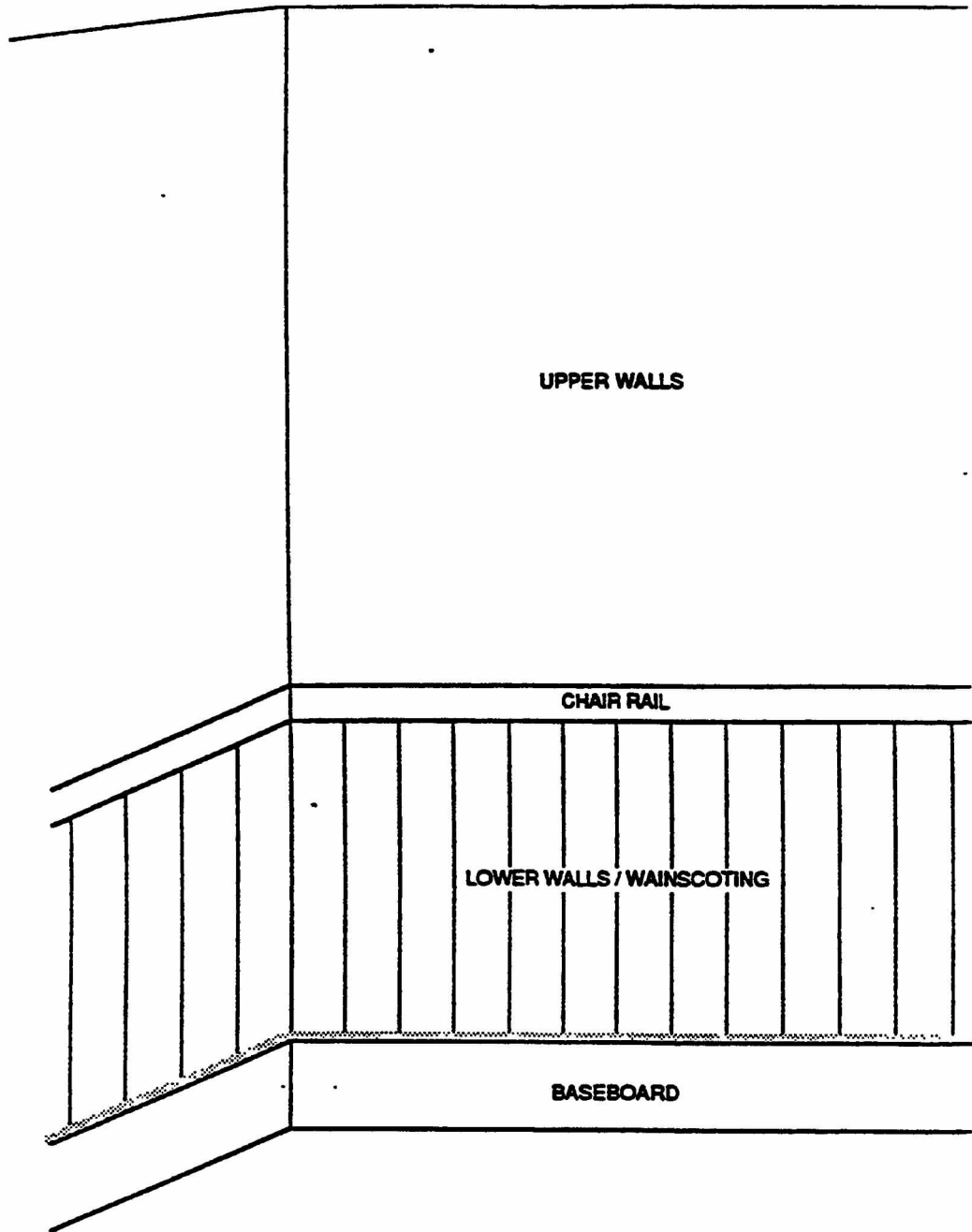
Additional proposals and consulting services are available from **PbO₃.**

APPENDIX D

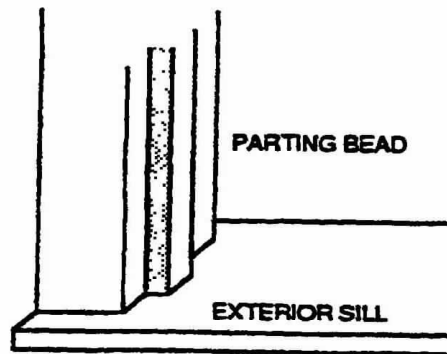
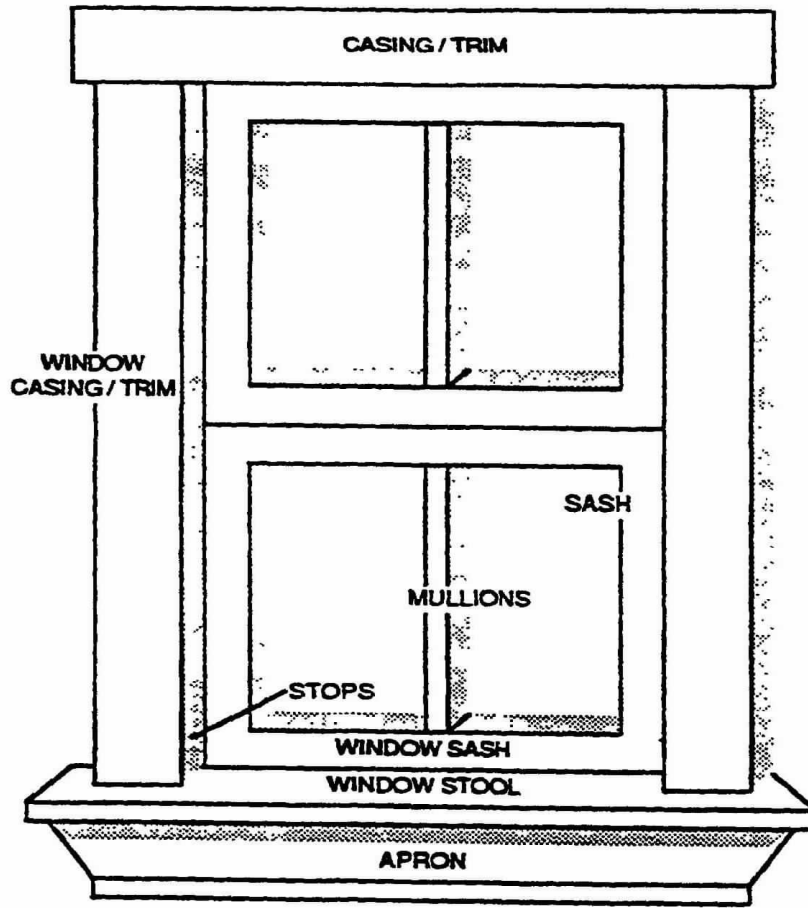
COMMON TERMS FOR COMPONENTS AND TESTING LAYOUT

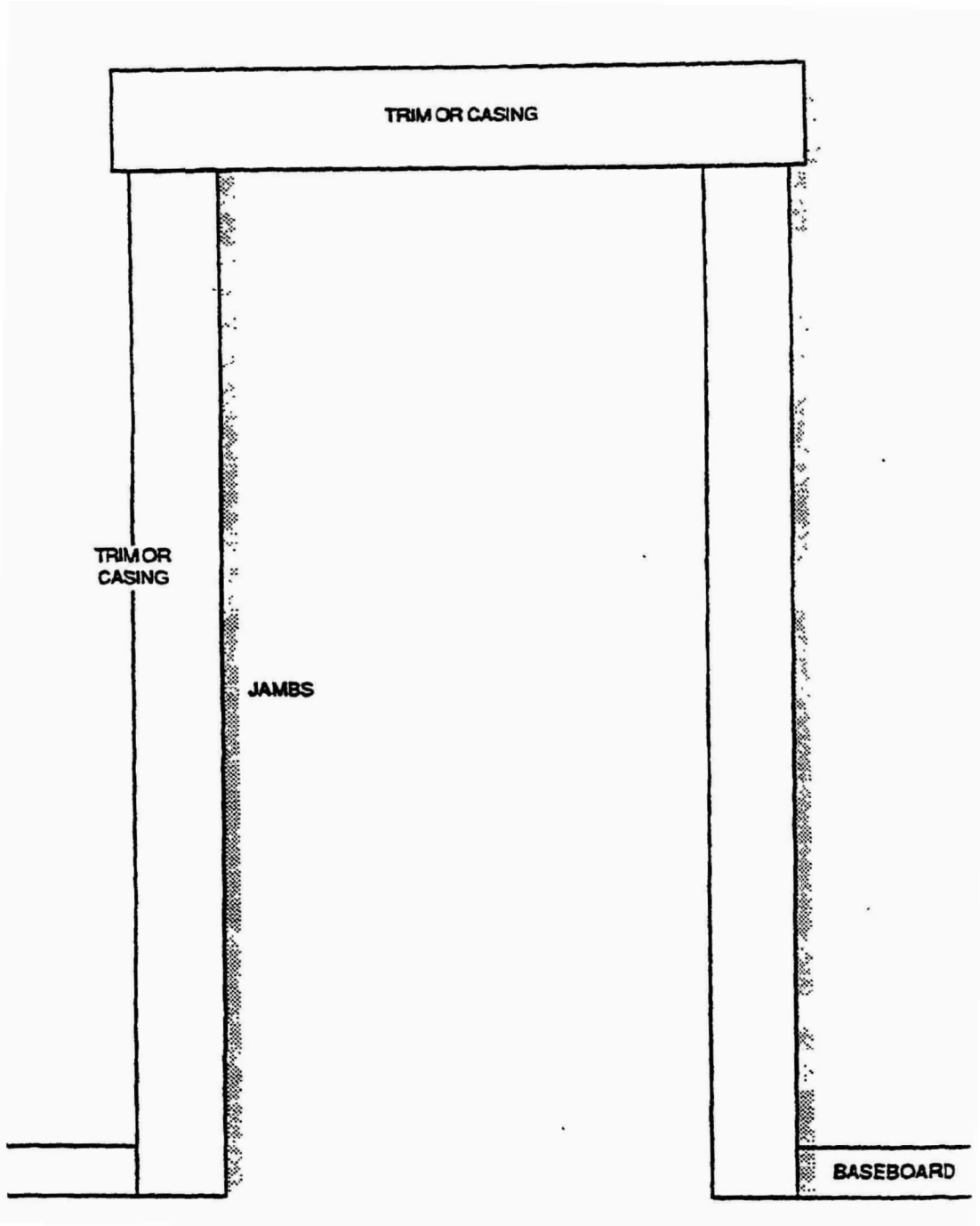


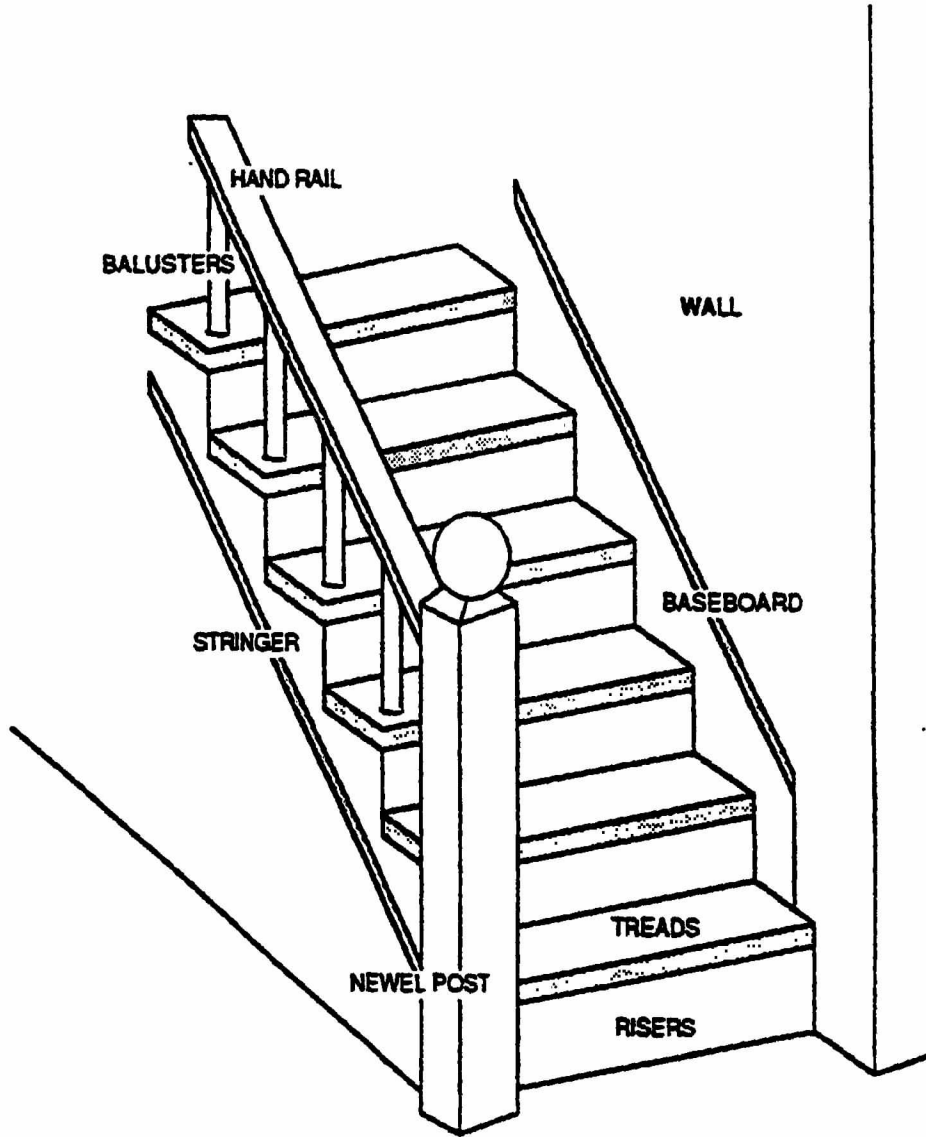




INSIDE VIEW







Glossary

Abatement: A measure designed to permanently eliminate lead-based paint hazards according to standards established by the Environmental Protection Agency (EPA) Administrator, pursuant to Title IV of the Toxic Substances Control Act (TSCA). Abatement strategies include the removal of lead-based paint, its enclosure, its encapsulation with a product shown to meet established or recognized standards pursuant to Title IV of TSCA, replacement of building components coated by lead-based paint, removal of lead-contaminated dust, and removal of lead-contaminated soil or overlaying of a durable covering—not grass or sod, which are considered interim control measures—on top of the soil, as well as preparation, cleanup, disposal, post-abatement clearance testing, recordkeeping, and, if applicable, monitoring.

Accessible surface: Any interior or exterior surface such as sills and protruding surfaces that a young child can mouth or chew.

Action Level: the defining limit for a required regulatory response.

Bare soil: Soil not covered with grass, sod, or some other similar vegetation. Bare soil includes sand (for example, the sand in sandboxes).

Base substrate: The building material beneath the lead-based paint film. The material may be plaster, wood, brick, or metal.

Biological monitoring: The analysis of blood, urine, or both to determine the level of lead contamination in the body. Blood lead levels are expressed in micrograms of lead per one-tenth of a liter of blood (a deciliter), or $\mu\text{g/dL}$.

Building component: Any part of a building coated with paint.

Certified: The designation for contractors who have completed training and other requirements to allow them to safely undertake risk assessments, inspections, and abatement work. Risk assessors, lead-based paint inspectors, and abatement contractors should be certified by the appropriate State or Federal agency.

Chalking: The photo-oxidation of paint binders—usually due to weathering—which causes a powder to form on the film surface.

Chewed surface: Any painted surface that shows evidence of having been chewed or mouthed by a young child. A chewed surface is usually a protruding, horizontal part of a building, such as an interior windowsill.

Cleaning: The process of using a HEPA vacuum and wet cleaning agents to remove leaded dust; the process includes the removal of bulk debris from the work area. OSHA prohibits the use of compressed air to blow lead-contaminated dust off a surface.

Clearance examination: Visual examination and collection of environmental samples by an inspector technician or risk assessor and analysis by an accredited laboratory upon completion of an abatement project, interim control intervention, or maintenance job that disturbs lead-based paint (or paint suspected of being lead-based paint). The examination is done to assure that lead exposure levels do not exceed standards established by the EPA Administrator pursuant to Title IV of the Toxic Substances Control Act and that any cleaning following such work adequately meets those standards.

Common area: A room or area that is accessible to all residents in a community (for example, a hallway or a lobby); in general, any area not kept locked.

Compliance plan: A document that describes the tasks, workers, protective measures, and tools and other materials that may be used in lead-based paint hazard control to comply with the OSHA Lead in Construction Standard.

Containment: A process to protect workers and the environment by controlling exposures to lead-contaminated dust and debris created during abatement. See **Worksite preparation level**.

Detection limit: The minimum amount of a substance that can be reliably measured by a particular method.

Deteriorated lead-based paint: Interior or exterior lead-based paint that is peeling, chipping, blistering, flaking, worn, chalking, alligating, cracking, or otherwise becoming separated from the substrate, or lead-based paint on a damaged or deteriorated surface or fixture.

Dust removal: A form of interim control that involves initial cleaning intervention followed by periodic monitoring and recleaning, as needed. Depending on the degree of lead-based paint hazards, dust removal may be the primary activity or just one element of a broader effort that addresses lead-based paint hazards.

Elevated Blood Lead level (EBL): In children, any blood lead level greater than 10 µg/Dl; in adults, any blood lead level greater than 25 µg/dL, as determined by the U.S. Centers for Disease Control and Prevention.

Enclosure: The use of rigid, durable construction materials that are mechanically fastened to the substrate in order to act as a barrier between the lead-based paint and the environment.

Evaluation: Risk assessment, paint inspection, or both.

Exterior work area: Any area such as a porch, stairway, or siding outside a building during lead-based paint hazard control work. This area includes a safety perimeter and access barriers.

Friction surface: Any interior or exterior surface, such as windows or stair treads, that is subject to abrasion or friction.

Hazardous waste: As defined in EPA Regulations (40 CFR 261.3), the term *hazardous waste* means solid waste or a combination of solid wastes that because of its quantity, concentration, physical, chemical, or infectious characteristics may cause or significantly contribute to increases in mortality or serious and irreversible or incapacitating but reversible illnesses or pose a substantial present or potential hazard to human health or the environment when improperly treated, stored, transported, or disposed. As defined in the regulations, solid waste is hazardous if it meets one of four conditions: (1) exhibits a characteristic of hazardous waste (40 CFR Sections 261.20 through 262.24); (2) has been listed as hazardous (40 CFR Section 261.31 through 261.33); (3) is a mixture containing a listed hazardous waste and a nonhazardous solid waste, unless the mixture is specifically excluded or no longer exhibits any of the characteristics of hazardous waste; and (4) is not excluded from regulation as hazardous waste. For the waste produced in lead-based paint abatement, hazardous waste is waste that contains more than 5 ppm of leachable lead as determined by the TCLP Test, or waste that is corrosive, ignitable, or reactive and is not otherwise excluded.

High-Efficiency Particulate Air (HEPA) filter: A filter capable of removing particles of 0.3 microns or larger from air at 99.97 percent or greater efficiency.

High phosphate detergent: See **Trisodium phosphate detergent**.

Impact surface: An interior or exterior surface such as those on doors and door jambs subject to damage by repeated impacts.

Interim controls: A set of measures designed to temporarily reduce human exposure or possible exposure to lead-based paint hazards. Such measures include specialized cleaning, repairs, maintenance, painting, temporary containment, and management and resident education programs. Monitoring levels of lead exposures by owners and reevaluation by professionals is an integral element of interim controls. Interim controls include dust removal, paint film stabilization, treatment of friction and impact surface, and installation of soil coverings, such as grass or sod, or land-use controls.

Interior windowsill: The portion of the horizontal window ledge that protrudes into the interior of the room, adjacent to the window sash when the window is closed; often called the window stool.

Intermediate controls: Coatings or rigid materials such as encapsulants and floor tiles that prevent lead-based paint from causing excessive lead exposures and that rely on adhesion to the existing paint film for their durability.

Lead: Lead includes metallic lead and inorganic and organic compounds of lead.

Lead-based paint: Any paint, varnish, shellac, or other coating that contains lead equal to or greater than 1.0 mg/cm² as measured by x-ray fluorescence detector or laboratory analysis, or 0.5 percent by weight (5,000 µg/g, 5,000 ppm, or 5,000 mg/kg) by laboratory analysis. (Local definitions may differ). Lead-based paint means paint of other surface coatings that contain lead equal to or greater than 1.0 mg/cm² or .05 percent by weight. Surface coatings include paint, shellac, varnish, or any other coating, including wallpaper that covers painted surfaces.

Lead-based paint hazard: A condition in which exposure to lead from lead-contaminated dust, lead-contaminated soil, or from lead-based paint that has deteriorated or coats accessible, friction, or impact surfaces would result in adverse human health effects, as established by the EPA Administrator under Title IV of the Toxic Substances Control Act.

Lead-based paint hazard control: Activities to control and eliminate lead-based paint hazards, including interim controls, intermediate controls, abatement, and complete removal.

Lead carbonate: A pigment used in some lead-based paint as a hiding agent; also known as white lead.

Lead-contaminated dust: Surface dust in residences that contains an area or mass concentration of lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. Until the EPA standards are set.

Lead-contaminated soil: Bare soil on residential property that contains lead in excess of the standard established by the EPA Administrator, pursuant to Title IV of the Toxic Substances Control Act. The interim HUD recommendation is 400 µg/g in high-contact play areas, and 2,000 ppm in other bare areas of the yard. Soil above 5,000 µg/g should be abated by removal or paving.

Lead hazard screen: A means of determining whether residences in good condition built between 1960 and 1978 should have a full risk assessment using dust sampling and visual survey.

Lead loading: The mass of lead in a given surface area on a substrate. Lead loading is typically measured in units of milligrams per square centimeter (mg/cm²). It is also called area concentration.

Lead-poisoned child: A child with a single blood lead level measurement of 20 µg/dL or 15 µg/dL or greater for two measurements taken at least one month apart.

Maintenance: Work to maintain adequate living conditions in a dwelling that may disturb lead-based paint or paint that is suspected to be lead-based paint.

Method detection limit (MDL): The minimum concentration of an analyte that, in a given matrix and by using a specific method, has a 99-percent probability of being identified, qualitatively or quantitatively measured, and reported to be greater than zero.

mg: Milligram; one-thousandth of a gram; a unit of weight.

Monitoring: Surveillance on a continuing basis by a property owner of lead-based paint hazard control measures implemented on a property. In contrast, reevaluation is the visual examination and environmental sampling conducted by a certified risk assessor or certified inspector of target housing units that have undergone abatement or interim control interventions (and clearance tests) to determine if lead-based paint hazards have reappeared. Monitoring *and* reevaluations are needed for interim controls, intermediate controls or encapsulation, and enclosure.

Multifamily housing: Housing that has more than one dwelling unit in one location.

Offsite paint removal: The process of removing a component of a building and stripping the paint from the component at a paint-stripping facility.

Oxidation: A chemical reaction that occurs upon exposure to oxygen. Some coatings cure by oxidation; oxygen enters the liquid coating and crosslinks (attaches) the resin molecules. This film-forming method is also called Air Cure or Air Dry. Oxidation also causes rust to form on metals and paint to chalk.

Paint film stabilization: The process of wet scraping, priming, and repainting deteriorated lead-based paint in a dwelling; the process includes cleanup and clearance.

Paint removal: A strategy of abatement that entails removing lead-based paint from surfaces. For lead-hazard control work this can mean using chemicals, heat guns that produce temperatures below 1100°F, and certain contained abrasive methods but not by open flame burning, open abrasive blasting, sandblasting, water blasting, or extensive dry scraping. (Methylene chloride paint removers are also not recommended.)

Personal Protective Equipment (PPE): Equipment for protecting the eyes, face, head, and/or extremities, including protective clothing, respiratory devices and protective shields when hazards capable of causing bodily injury or impairment are encountered.

Precision: The degree to which a set of observations or measurements of the same property, usually obtained under similar conditions, conform to themselves; a data quality indicator. Precision is usually expressed in either absolute or relative terms as standard deviation, variance, or range.

Reevaluation: In lead hazard control work, a visual assessment and collection of environmental samples by a certified risk assessor or certified inspector technician to determine if a lead-based paint hazard control measure that has been implemented is still effective and if the dwelling is still lead-safe.

Renovation: Work that involves construction and home or building improvement measures such as window replacement, weatherization, remodeling, and repainting.

Replacement: A strategy of abatement that entails the removal of building components that have surfaces coated with lead-based paint, such as windows, doors, and trim, and the installation of new components free of lead-based paint.

Risk assessment: An onsite investigation of a residential dwelling for lead-based paint hazards. Risk assessment includes investigating the age, history, management, and maintenance of the dwelling, and the number of children under age 6 and women of child-bearing age who are residents; conducting a visual assessment; performing limited environmental sampling, such as dust wipe samples, soil samples, and deteriorated paint samples; and reporting the results that identify acceptable abatement and interim control strategies based on specific conditions and the owner's capabilities for controlling identified lead-based paint hazards.

Risk assessor: A certified individual who has completed training from an accredited training program and who has been certified to (1) perform risk assessments; (2) identify acceptable abatement and interim control strategies for reducing identified lead-based paint hazards (3) perform clearance testing and reevaluations; and (4) document the successful completion of lead-based paint hazard control activities.

Room equivalent: A room equivalent is an identifiable part of a residence, such as a room, a house exterior, a foyer, staircase, hallway, or an exterior area (exterior areas contain items such as play areas painted swing sets, painted sandboxes, etc.). Closets or other similar areas adjoining rooms should not be considered as separate room equivalents unless they are obviously dissimilar from the adjoining room equivalent. Most closets are not separate room equivalents. Exteriors should be included in all inspections. An individual side of an exterior is not considered to be a separate room equivalent unless there is visual or other evidence that its paint history is different from that of the other sides. All sides of a building (typically two for row houses or four for freestanding houses) are generally treated as a single room equivalent if the paint history appears to be similar. For multifamily developments or apartment buildings, common areas and exterior sites are treated as separate types of units, not as room equivalents.

Solid waste: As defined in the Resource Conservation and Recovery Act, the term *solid waste* means garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility, and other discarded materials, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities. The term does not include solid or dissolved material in domestic sewage or solid or dissolved materials in irrigation return flows or industrial discharges that are point sources subject to permits under the Clean Water Act, nor does the term include special nuclear or byproduct material as defined by the Atomic Energy Act of 1954.

Substrate: A surface on which paint, varnish, or other coating has been applied or may be applied. Examples of substrates include wood, plaster, metal, and drywall. The substrate is the material underneath the paint. Substrates should be classified into one of six types: brick, concrete, drywall, metal, plaster or wood. These substrates cover almost all building materials that are painted and are linked to those used in the *XRF Performance Characteristics Sheets*. For example, the concrete substrate type includes poured concrete, pre-cast concrete and concrete block.

If a painted substrate is encountered that is different from the substrate categories shown on the *XRF Performance Characteristic Sheet*, select the substrate type that is most similar in density and composition to the substrate being tested. For example, for painted glass substrates, an inspector should select the concrete substrate, because it has about the same density (2.5 g/cm³) and because the major element in both is silicon.

For components that have layers of different substrates, such as plaster over concrete, the substrate immediately adjacent to (underneath) the painted surface should be used. For example, plaster over concrete block is recorded as plaster.

Testing combination: A testing combination is a unique combination of room equivalents, building component type, and substrate. Visible color may not be an accurate predictor of painting history and is not included in the definition of a testing combination. The following are some common component types that could make up distinct testing combinations within room equivalents:

Air conditioners	Fireplaces	Balustrades	Lattice Work
Floors	Baseboards	Handrails	Walls
Bathroom Vanities	Newel Posts	Beams	Siding
Cabinets	Radiators	Ceilings	Crown Molding Window
Shelf Supports	Chair Rails	Shelves	Window Sashes and Trim
Columns	Stair Stringers	Countertops	Swing Sets and other Play Equipment
Stair Treads/Risers	Stools and Aprons	Doors and Trim	

Toxicity Characteristic Leaching Procedure (TCLP): A laboratory test method to determine if excessive levels of lead or other hazardous materials could leach into groundwater; usually used to determine by its toxicity characteristic if the waste is hazardous.

Treatment: In lead-based paint hazard control, a method designed to control lead-based paint hazards. Treatment includes interim controls, intermediate methods, abatement, and full removal. Hazardous waste treatment is a method, technique, or process, including neutralization, that is designed to change the physical, chemical, or biological character or composition of hazardous waste so as to neutralize it, render it nonhazardous or less hazardous, recover it, make it safer to transport, store, or dispose, or allow for easier recovery, storage, or volume reduction.

Trisodium Phosphate (TSP) detergent: Detergent that contains at least 5 percent trisodium phosphate.

µg (or ug): Micrograms. The prefix micro- means 1/1,000,000 (or one-millionth). A microgram is 1/1,000,000 of a gram and 1/1,000 of a milligram. A microgram is equal to about 35/1,000,000,000 (thirty-five billionths) of an ounce. An ounce is equal to 28,400,000 µg.

White lead: A white pigment; usually lead carbonate.

Worker: An individual who has completed training in an accredited program to perform lead-based abatement in target housing.

Worksite: A hallway, room or group of rooms, or exterior where a lead-based paint hazard control measure takes place.

XRF analyzer: An instrument that determines lead concentration in milligrams per square centimeter (mg/cm²) using the principle of x-ray fluorescence (XRF). Two types of XRF analyzers are used, direct readers and spectrum analyzers. In these *Guidelines*, the term XRF analyzer refers to portable instruments manufactured to analyze paint only and does not refer to laboratory-grade units or portable instruments designed to analyze soil.

APPENDIX E

ABATEMENT OPTIONS

There are different options available for abatement activities depending on what the source of lead is. As the report states, lead can enter the environment commonly from four different avenues: paint, water, soil and dust. Each option has its own cost benefits associated with it. Any one option can be used, or in most cases, a combination of the options can be implemented to reduce the possibility of lead contamination. **Pb03** strongly suggests that each option be thoroughly contemplated before beginning any activity.

LEAD PAINT ABATEMENT OPTIONS:

1. Removal

Removal is a permanent solution to the problem of potential exposure of lead. Removal requires taking the old lead-based painted component out and replacing it with a new non-lead painted component. Depending on the cost of the component you replace the lead-based painted component which will dictate the cost associated with this option.

2. Stripping

Chemical stripping is an option that should only be used if the customer is looking to preserve the original look and integrity of the lead-based painted component. Chemical stripping is labor intensive and is typically a messy process. There are currently multiple products on the market that are used for paint stripping and are environmentally safe (methylchloride-based products should not be used). Some products are acidic oriented, and some are base oriented, and consequently need to be neutralized before repainting. In addition, to dispose of lead-painted waste you must also dispose of chemical waste, and the product used will determine how the waste must be disposed of. Chemical stripping is usually a permanent solution, but if it is not done properly, lead dust and debris can leach into the component and still be detectable through lead analysis.

3. Encapsulation

Encapsulation is the process of using an encapsulant-type of product that is applied over the lead-painted component. There are currently many different types of encapsulants on the market, and they come in many different forms. Some encapsulants are like stucco, some are like a two-part epoxy, some are like a heavy latex paint, and some are like a cement or plaster. Different types of encapsulants have different life expectancies and some come in different colors. None of the encapsulants are guaranteed forever, although some do come with a life or 10-to-20-year guarantee! This option is not a permanent solution, and if the encapsulant ever becomes disturbed the lead-based paint is exposed. Encapsulation is typically the least expensive option, but at this time it is not universally accepted and is currently being studied at the federal level, as a viable and affordable option for lead abatement or in-place management.

4. Enclosure

Enclosure is the option of sealing off the lead-based painted component by sealing it in with another building material. Such materials would include, but are not limited to, sheet rock, some wallpapers, paneling, and joint compounds. Enclosure is not a permanent solution, and if the enclosure material is used for enclosure, this can be an affordable option. Depending on the enclosure option taken it is possible that no lead abatement procedures need to be followed, but of course, consult a professional before beginning.

General statement:

Before beginning any of the above-mentioned options, lead testing should be performed, and if the components tested are positive for the presence of lead, lead control and/or abatement procedures should be followed. Such activities would include, but are not limited to; proper training, respiratory protection, clothing protection, HEPA vacuuming, TSP cleaning, proper containment, and removal or covering of all furniture and fixtures. **After abatement activities are completed, post-abatement lead testing should be performed to ensure that the area is safe for re-occupancy.**

SOIL REMEDIATION OPTIONS:

1. Soil replacement

Remove and dispose of lead-contaminated soil and replace it with clean soil. The extent of soil contamination will determine the extent of soil replacement and the depth of removal. This is a permanent solution, assuming the soil is not re-contaminated due to environmental factors.

2. Encapsulation or enclosure

Depending on the extent of the soil contamination, there are multiple soil encapsulation options, such as, but not limited to; placing grass sod over the lead-contaminated area, placing clean non-contaminated soil over lead-contaminated soil, cover the contaminated area with some form of ground covering plants so as not to allow for easy accessibility with soil. Encapsulation or enclosure is not a permanent solution, however it is an option and is typically not too expensive.

3. Soil reconditioning

New applications are available to have your current soil reconditioned and cleaned of any lead contamination. There are several different processes available, from on-site cleaning to off-site cleaning. Depending on the extent of contamination, the process can be fairly expensive.

WATER REMEDIATION OPTIONS:

1. Water purifying systems

There are currently many different water-purifying systems on the market that have been assessed for lead treatment. Consumer Reports performed tests of lead-removing water treatment devices. The systems vary in price and treatment capabilities.

2. Removal of system

If the extent of the problem is severe the only option might be complete removal of the water system and replacement with a new non-lead water system. This option is a permanent solution but can be very costly.

3. Drinking water

Drink only bottled water that has been tested for the presence of lead.

DUST REMEDIATION OPTIONS:

Perform a proper environmental cleaning of the site. Depending on the area that your property is located in, you can use either a Tri-Sodium Phosphate (TSP) solution or LEDIZOLV cleaning detergent. TSP is currently outlawed in many parts of the country. Perform a thorough cleaning of the area, constantly changing and cleaning materials so as not to cause cross-contamination. After cleaning with solution perform a thorough HEPA vacuuming, using a vacuum that has a High Efficiency Particulate Air (HEPA) filter. After cleaning the area, have an independent, of the contractor, testing company perform a lead dust wipe analysis to ensure that the area is clean of elevated levels of lead.

General Statement: Do not perform any lead dust cleaning with a normal home use vacuum. This can increase the possibility of lead poisoning. If lead sources still exist on the property after completing a lead dust cleaning, the process should be consistently performed on a routine basis and resealing the component should be considered. Elevated levels of lead dust can re-accumulate over a period of time, dependent upon the condition of the property and the surrounding environment.

If you have any further concerns or questions regarding this report or related to the environmental services we have performed, please feel free to call **PbO3** at (352) 203-4081.

NOTES:

Dear Customer:

PbO3 Environmental Monitoring Company would like to thank you for allowing us the opportunity to be of service to you. We value our customers and therefore **PbO3** prides itself on making sure every customer is fully satisfied.

If there is ever another opportunity that we can be of service to you, we would appreciate the call. The services we provide for future reference are as follows.

- **Lead Testing and Consulting, Paint, Soil, Water and Dust.**
- **Asbestos Testing, Consulting and Monitoring.**
- **Indoor Air Quality Testing.**
- **Mold Assessments and Clearances.**
- **And various other environmental issues.**

If you should have any questions, comments, or concerns please contact us at (352) 203-4081. Once again, thank you for using **PbO3**.

Sincerely,

PbO3 Environmental Monitoring, LLC