Renton Historical Museum - RFQ Questions and Responses
Addendum One - August 1, 2025

Date	Firm	Name	Question	Answer
07/22/2025	SHKS Architects	Andy Wiselogle	I'm writing from SHKS Architects regarding the City's current Renton Historical Museum Repairs request for qualifications. I would like to ask if there is an established budget for the work described in the RFQ or if that will be determined with the selected consultant.	$350,000.00
07/24/2026	Rock Project Management	Jamie O'Donnell	1. Are 11x17 pages allowed? If so, do they count as one page or two?	An 11x17 page would count as two.
07/24/2026	Rock Project Management	Jamie O'Donnell	2. Is there a preferred completion date for construction?	March 31, 2026, if possible.
07/24/2026	Rock Project Management	Jamie O'Donnell	3. Is there a schedule requirement to get the museum program back up and running by a specific date?	We would like it opened as soon as possible after construction is complete. There will be artifacts to move back and displays to set once construction is completed.
07/28/2025	Architectural Resources Group	Nu NHI Nguyen	Are CAD or Revit files available of the existing plans and elevations?	See attached. This is all I have currently. Renton Historal Museum.PDF and CAPArchitect_final.pdf.
07/28/2025	Architectural Resources Group	Nu NHI Nguyen	Do historic construction drawings of the building exist?	Same as above.
07/28/2025	Architectural Resources Group	Nu NHI Nguyen	Does scope include assessment and repair specifications for the exterior doors?	Yes, the doors need replacement along with the ADA access.
07/28/2025	Architectural Resources Group	Nu NHI Nguyen	Is roofing work to be included in the scope of work?	No since the budget is limited.
07/28/2025	Architectural Resources Group	Nu NHI Nguyen	Are exterior window fabricated of steel?	Yes.

07/30/2025	All	All	Is a condition assessment required?	Yes, the COR would like an updated condition assessment.
	Attachments	N/A	N/A	Exhibit A - Site Walk Sign In Sheet
	Attachments	N/A	N/A	Exhibit B - Good Faith Survey
	Attachments	N/A	N/A	Exhibit C - Limited Good Faith Survey
	Attachments	N/A	N/A	Exhibit D - CAP Architect

EXHIBIT A

Renton Historical Museum - RSVP/Sign In Sheet for Project Site Walk

7/30/2025, 2:00 PM

Date	Firm	Name	Signature
07/21/2025	ARC Architects	Paul Curtis	
07/21/2025	ARC Architects	Andrew Miller	
07/22/2025	BCRA Design	Kim Doyle	
07/23/2025	City of Renton	Mark Richardson	
07/23/2025	City of Renton	Trey Tandecki	
07/23/2025	City of Renton	Ava Jo Schuldt	
07/24/2025	ECH Architeture PS	Fred Lawson	
07/21/2025	ARC Architects	Paul Hanway	
07/23/2025	Rock Project Management	Bernie O'Donnell	
07/23/2025	Rock Project Management	Jamie O'Donnell	
07/29/2025	SHKS Architects	Jerad Allen	
07/29/2025	Stantec	Petersen Lambert	
07/23/2025	Stemper Architecture Collaborative	Heather Landis	
07/28/2025	Studio Meng Strazzara	Kris Feliciano	
07/29/2025	Walker Consultants	Kelven Liu	
07/29/2025	~~Walker Consultants~~ RICHAYEN ARCHITECTURE & PRESERVATION	Brian Rich	

Date	Firm	Name	Signature
	PACIFIC ENVIRO	PAUL HANNAH	
	Johnson Oakliet Architecture	Jeff Anderson	
	WISS JANNEY ELSTNER	JONATHAN KOLEN	
	Wiss Janney Elstner	Kelly Hillard	
	Wiss Janney ELSTNER	Justin David	

EXHIBIT B

REGULATED BUILDING MATERIALS SURVEY

Renton Historical Museum Remodel
235 Mill Avenue South
Renton, WA 98057

Performed for:
City of Renton
1055 South Grady Way
Renton, WA 98057-3232

Prepared By:
Jamie Dueck
Project Administrator
PacRim

Sr. Review By:
Tricia Lewis
AHERA Accredited BI
PacRim

Report Date: 11/25/2024
PacRim#: 18089

TABLE OF CONTENTS

QAQC Review By: _____ Date Reviewed: 11/19/2024

Section 1.0 Scope of Work

Introduction: **On November 13th and 15th, 2024, Todd Carter, an AHERA Accredited Building Inspector and a DOC certified Lead Risk Assessor, and Paul Hanway, an AHERA Accredited Building Inspector for Pacific Rim Environmental, Inc. (PacRim), performed a regulated building materials survey at the subject property described below.**

Site: **Renton Historical Museum – 235 Mill Avenue South, Renton, WA 98057 – a 5,442 square foot one-story museum originally built in 1941.**

Limitations: **Sampling of interior and exterior suspect materials was performed using discreet, non-destructive sampling methods. No roof testing was requested.**

Field inspection, data collection, and report generation were performed according to the following **Scope of Work**:

Asbestos-Containing Materials (ACM)

1. Bulk sampling and analysis of suspect asbestos-containing materials (ACM).
2. Analysis of suspect ACM by a NVLAP accredited laboratory.
3. Quantity estimates of ACM.
4. Written report based on the technician's observations, sample descriptions, and sample location.
5. Statement of Compliance with W.A.C. 296-62-07721 Sign-off form.

Lead-Based Paints (LBP)

6. Perform limited screening of suspect lead-based paints.
7. Written report including: Sample descriptions, conditions, locations, analytical results, and recommendations.

Universal Waste Inventory

8. Inspect and inventory lights and other equipment to identify and quantify fixture and lamp type to determine presence of PCB and/or mercury.
9. Written report including quantity of Exit signs, HID Lights, and any other universal waste present onsite.

Polychlorinated Biphenyls (PCB)

10. Sampling of suspect materials for PCB analysis.
11. Written report including Sample descriptions, locations, and analytical results.

Section 2.0 Survey Definitions and Purpose

DEFINITIONS:

Surfacing: Materials, which are either spray-applied or troweled-on for acoustical, decorative, or fireproofing purposes.

Thermal System Insulation (TSI): Insulating materials used to inhibit heat transfer or to prevent condensation on pipes, boilers, tanks, ducts, and various other components.

Miscellaneous (Misc.): All other materials not included in the above categories such as floor tile, ceiling tile, roofing felt, cementitious materials, wallboard systems and products such as caulking, mastics and putties.

Homogeneous Material: For the purposes of this report; ***Homogeneous Material*** is defined as an area of surfacing material, thermal system insulation, or miscellaneous material that is uniform in color, texture, and application. When materials are determined to be Homogeneous by the on-site AHERA Accredited Building Inspector; although laboratory results may vary, in accordance with AHERA regulations, if any of the samples in a Homogeneous Material Sample Set are found to contain asbestos, then all materials in the Sample Set must be considered to contain asbestos.

HM#: Homogeneous Material Number indicates which Homogeneous Material Sample Set that the collected sample belongs to.

Homogeneous Area: For the purposes of this report, ***Homogeneous Area*** is defined as a summary of all areas where a Homogeneous Material was identified within the Project Scope.

PACM: Presumed Asbestos-Containing Material indicates suspect building material for asbestos is treated as Asbestos-Containing Material (ACM) until destructive testing can be completed to determine otherwise.

PURPOSE:

The survey was intended to identify possible asbestos-containing materials, lead-based paints, universal waste, and PCBs on the interior and exterior of the building. This inspection covered only those areas which were exposed and/or physically accessible to the inspector.

Materials uncovered during the course of demolition, renovation, or maintenance activities that are not identified in this inspection report must be presumed to contain asbestos until PLM analysis proves that this material is not asbestos-containing.

This survey is not intended for, nor should be used as a design specification.

The Asbestos in Schools Hazard Amendment and Reauthorization Act (ASHARA), effective November 20, 1990, expanded accreditation requirements to apply to persons who work with asbestos in public and commercial buildings as well as schools. Specifically, ASHARA expanded the Toxic Substances Control Act (TSCA) Section 206 (a) (1) and (3) to require accreditation for any person who designs or conducts a response action with respect to friable ACM in a building. TSCA Section 207 provides for civil penalties of $5,000 for each day of a violation for not employing accredited individuals to design and conduct response actions.

Sampling of suspect asbestos-containing materials was conducted as prescribed in 40 CFR 763.86.

Section 3.0 Survey Findings – Statement of Compliance

In accordance with 29 CFR 1910.1001, W.A.C. 296-62-07721, and PSCAA Regulation III, Article 4, Pacific Rim Environmental, Inc. performed a regulated building materials survey of the Renton Historical Museum located at 235 Mill Avenue South in Renton, Washington 98057. Should employees or contract personnel encounter any suspect asbestos-containing materials (ACM) it is their responsibility to:

1. Contact a representative of the owner.
2. Consult the inspection report to determine whether or not the suspect material contains asbestos.
3. If the suspect material does not appear in the inspection report, then that material was not sampled and must be presumed to contain asbestos until proven otherwise by sampling and PLM analysis.
4. Ensure that all employees and contractors, who may disturb suspect materials, are informed and advised of the location and type of materials that contain asbestos.

Limitations:

Sampling of interior and exterior suspect materials was performed using discreet, non-destructive sampling methods. No roof testing was requested.

Survey Findings:

The following suspect hazardous and regulated materials were sampled and analyzed at the subject property:

Asbestos (See Section 4.0 for details):

The following materials were determined to be ACM by laboratory analysis:

- **Non-ACM Yellow Mastic over ACM 9x9 Floor Tile & ACM Tar Mastic**

Lead-Based Paint (See Section 5.0 for details):

Multiple LBP components were identified during the screening.

Universal Waste (See Section 6.0 for details):

- **Exit Signs – Approximately 5 Each**
- **8-foot 2-tube Fluorescent Lights – Approximately 12 each**
- **4-foot 4-tube Fluorescent Lights – Approximately 12 each**
- **4-foot 1-tube Electric Lights – Approximately 2 each**
- **4-foot 2-tube Fluorescent Lights – Approximately 4 each**
- **8-foot 2-tube Fluorescent Lights – Approximately 1 each**
- **4-foot 2-tube Electric Lights – Approximately 7 each**

Polychlorinated Biphenyls (See Section 7.0 for details):

None of the suspect PCB materials were found to contain greater than 50ppm.

I Hereby Attest:

The inspection report has been made available to me. I will inform all subcontractors of the location and types of materials containing asbestos. I am authorized to sign on behalf of my company.

Contractor:	_____	Owner's Rep:	_____
Signature:	_____	Signature:	_____
Print Name:	_____	Print Name:	_____
Title:	_____	Title:	_____
Date:	_____	Date:	_____

Section 4.0 Asbestos Sampling Summary by Homogeneous Materials

Bulk samples collected were submitted for sample analysis in accordance with method EPA-600/R-93/116: "Method for the Determination of Asbestos in Bulk Building Materials". Analyses were performed at Pacific Rim Environmental, Inc., a NVLAP Accredited Laboratory (Lab Code 101631-0). Materials are positive for asbestos if they are found to contain greater than one percent (1%) or 1% asbestos. Materials that are less than one percent (<1%) asbestos, although not considered positive for asbestos, when removed must follow applicable Washington State regulations.

A total of thirty-one (31) bulk samples were collected by PacRim and submitted for PLM laboratory analysis.

Limitations: Sampling of interior and exterior suspect materials was performed using discreet, non-destructive sampling methods. No roof testing was requested.

The following materials were <u>determined to be ACM</u> by laboratory analysis:

- **Non-ACM Yellow Mastic over ACM 9x9 Floor Tile & ACM Tar Mastic**

<u>Asbestos Sample Summary Table by Homogenous Number:</u>

HM #	AHERA Category	Sample Description	Estimated Quantity	Sample Location	Asbestos Type / %	Sample #
1	Misc.	Acoustical Ceiling Tile and mastic	N/A	Room 110	None Detected (Both Layers)	01
				Room 110	None Detected (Both Layers)	02
2	Surfacing	Hard Plaster Wall tan scratch coat	N/A	Room 110	None Detected	03
				Room 110	None Detected	04
3	Surfacing	Hard Plaster Wall white finish coat	N/A	Room 110	None Detected	05
				Room 110	None Detected	06
4	Surfacing	Coating on concrete floor	N/A	Room 109	None Detected	07
				Room 109	None Detected	08
5	Surfacing	Coating on concrete wall	N/A	Room 109	None Detected	09
				Room 109	None Detected	10
6	Misc.	Expansion Joint	N/A	Room 109	None Detected	11
				Room 109	None Detected	12
7	Misc.	Window Frame Caulk	N/A	Stairs to basement	None Detected	13
				Stairs to basement	None Detected	14
8	TSI	Fiberglass pipe insulation	N/A	Room 109	None Detected (All Layers)	15
9	Surfacing	Coating on concrete wall	N/A	Room 109	None Detected	16
				Room 109	None Detected	17
10	Misc.	Sheet Vinyl Flooring	N/A	Guest restroom	None Detected (All Layers)	18

Section 4.0 Asbestos Sampling Summary by Homogeneous Materials – Continued

HM #	AHERA Category	Sample Description	Estimated Quantity	Sample Location	Asbestos Type / %	Sample #
11	Misc.	Sheet Vinyl Flooring	N/A	Kitchen	None Detected (All Layers)	19
12	Misc.	Cove Base Mastic	N/A	Kitchen	None Detected (All Layers)	20
13	Misc.	Carpet Mastic	N/A	Room 110	None Detected	21
14	Misc.	Sink Undercoating	N/A	Kitchen	None Detected	22
15	Misc.	Sheet Vinyl Flooring	N/A	Kitchen cabinet below sink	None Detected (Both Layers)	23
16	**Misc.**	**9x9 Floor Tile and tar mastic**	**300 SF**	**Room 104 under carpet tile**	**Layer 1: (Yellow Mastic) None Detected Layer 2: (Green Floor Tile) Chrysotile 3-5% Layer 3: (Black Mastic) Chrysotile 3-5%**	**24**
				Room 101	**Layer 1: (Yellow Mastic) None Detected Layer 2: (Green Floor Tile) Chrysotile 3-5% Layer 3: (Black Mastic) Chrysotile 3-5%**	**25**
17	Misc.	Carpet Mastic	N/A	Room 101	None Detected	26
18	Misc.	12x12 Floor Tile	N/A	Room 104	None Detected (Both Layers)	27
19	Misc.	12x12 Floor Tile	N/A	Room 104 record storage	None Detected	28
20	Misc.	Sheet Vinyl Flooring	N/A	Employee restroom	None Detected (All Layers)	29
21	Misc.	9x9 Floor Tile under 12x12 tile	N/A	Room 104	None Detected (All Layers)	30
				Room 104	None Detected (All Layers)	31

Materials uncovered during the course of demolition, renovation, or maintenance activities that are not identified in this inspection report must be presumed to contain asbestos until PLM analysis proves that this material is not asbestos-containing.

Section 5.0 Lead-Based Paint Screening Summary

The inspection and testing performed on the interior and exterior of the subject structure's painted surfaces ***did identify*** lead-based paint concentrations at or above the **EPA/HUD standard of 1.0 mg/cm2** on the tested components.

Sample#	Substrate	Component	Location	Color	Pb mg/cm^2
12	Wood	Door trim	Room 1	Beige	1.92
14	Wood	Door	Electric Room	Beige	1.59

The XRF sample results are provided in Appendix C.

The Performance Characteristic Sheet for the SciAps X-Ray Fluorescence Spectrometer (XRF) model SciAps X550, February 1, 2022, is provided in Appendix C.

General Information:

It is important to keep in mind that although the EPA/HUD standard uses a criterion of 5,000 parts per million dry weight or 1.00 milligrams per square centimeter (1.00 mg/cm^2) for lead-based paint, there still may be lead present in those results reported as negative. In the event that lead is present, Federal OSHA and Washington State Department of Labor & Industries regulations will still apply since neither agency has established a concentration of lead in paint below which the lead-in construction standards do not apply. Workers wearing respiratory protection and who have received proper training in handling lead-contaminated materials must be used for any construction activities (including manual scraping, manual/power sanding, heat gun applications, general cleanup, and demolition) that affect a paint film containing lead.

If the building is to be renovated or remodeled, there are procedures regarding the disturbance or removal of the lead-based paints that **can** be followed (i.e., initial air monitoring, clearance sampling, etc.). These procedures can be found in *HUD-0006700 Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. It is not required that these regulations/procedures be utilized on this project; however, because these are the only available guidelines for the removal of lead-based paints, PacRim feels it necessary to inform you of these guidelines.

The current state rules or regulations that currently apply to lead-based paints are WAC 296-155-17603 Scope and WAC 296-155-17607 Permissible Exposure Limit. The WAC code states that if lead is detectable in the workplace in any quantity, initial air monitoring must be performed on employees doing demolition, renovation, or remodeling work in areas found to have materials containing lead. Also, workers performing lead removal must be trained in accordance with WAC 296-155-17625.

Section 6.0 Universal Waste Identification Summary

Universal Waste Rules

The Universal Waste Rule (UWR) establishes alternative, streamlined waste management standards in place of most of the Dangerous Waste Regulations, Chapter 173-303 WAC, except for, WAC 173-303-050, 173-303-145 and 173-303-960.

The following lamp types may be characterized as universal waste: fluorescent tubes, high intensity discharge (HID) lamps (mercury vapor, metal halide, high pressure sodium) and compact fluorescent lights.

- **Approximately 5 exit signs**
- **Approximately 12 8-foot 2-tube fluorescent lights**
- **Approximately 12 4-foot 4-tube fluorescent lights**
- **Approximately 2 4-foot 1-tube electric lights**
- **Approximately 4 4-foot 2-tube fluorescent lights**
- **Approximately 1 8-foot 2-tube fluorescent light**
- **Approximately 7 4-foot 2-tube electric lights**

Universal waste must be removed and properly disposed of or recycled prior to building demolition.

Disposal of individual lamps is not regulated. However, disposal of large quantities of lamps is subject to dangerous waste regulations (WAC 173-303) and the waste stream must be subjected to TCLP (Toxicity Characteristic Leaching Procedure) analysis to determine the amount of mercury that could leach out of the waste. The TCLP limit for mercury is 0.2 mg/L.

PCBs belong to a broad family of organic chemicals known as chlorinated hydrocarbons. PCBs are produced by the combination of one or more chlorine atoms and a biphenyl molecule. PCBs range in consistency from heavy oily liquids to waxy solids. Prior to 1979, PCBs were widely used in electrical equipment such as transformers, capacitors, switches, and voltage regulators.

A copy of the Washington State Department of Ecology *Universal Waste Rule for Dangerous Waste Lamps WAC 173-303-573*, Publication # 00-04-020, June 2000, is provided in Appendix G.

Section 7.0 Polychlorinated Biphenyls Analysis (PCB)

1.0 Introduction
This report summarizes the sample collection and analysis of suspect PCB containing materials from the site. The PCB concentrations will be used to determine the appropriate handling and disposal requirements.

2.0 Description of Work
Pacific Rim Environmental (PacRim) collected samples of the suspect PCB-containing caulk, putty and sealants products observed during the survey. Workers wore standard Personnel Protective Equipment (PPE) and disposable nitrile gloves.

3.0 Sample Collection Procedures
Samples were collected using a razor knife or other hand tools. The samples were placed directly into clean sample containers and stored in an iced cooler. The sampling tools were cleaned before and after each sample using acetone followed by an alconox solution scrub and a triple-rinse in de-ionized water. A new pair of disposable gloves was worn during the collection of each sample.

4.0 Sample Containers
Samples were placed in clear glass sample containers (4-ounce certified clean jars with teflon-lined lids) and labeled with a unique identifier. Sample containers were provided by the analytical laboratory.

5.0 Sample Preparation
No sample preparation is required for this method.

6.0 Sample Preservation
The samples were stored in an iced cooler during the sample collection and shipping process. Once collected, the sample containers were not opened until received by laboratory.

7.0 Sample Documentation
Sample location information was logged on a field data sheet and photographed. Samples were shipped and received under chain-of-custody procedures to the analytical laboratory.

8.0 Analytical Procedures
Samples were analyzed by Friedman & Bruya utilizing EPA SW-846 Method 3550C 8082/608.3. Laboratory Accreditations are provided in Appendix F.

8.1 Analytical Results
Zero (0) of the samples were found to contain PCB greater than the regulatory limit. The tabulated results are provided below in Table A. Laboratory analysis reports are provided in Appendix E.

TABLE A

Sample Date	Sample Number	Material Description	Sample Location	Sample Result	Regulatory Limit
11-13-24	PCB-1	Expansion Joint	Main viewing area	<0.02 mg/kg	50 mg/kg (ppm)

Appendix A: Sample Location Drawing

Sample Location Drawings

Samples positive for asbestos appear in squares EX: [#] →

Samples analyzed and non-detected/negative for asbestos appear as numbers only EX: # →

Samples containing less than one percent asbestos appear in circles EX: (#) →

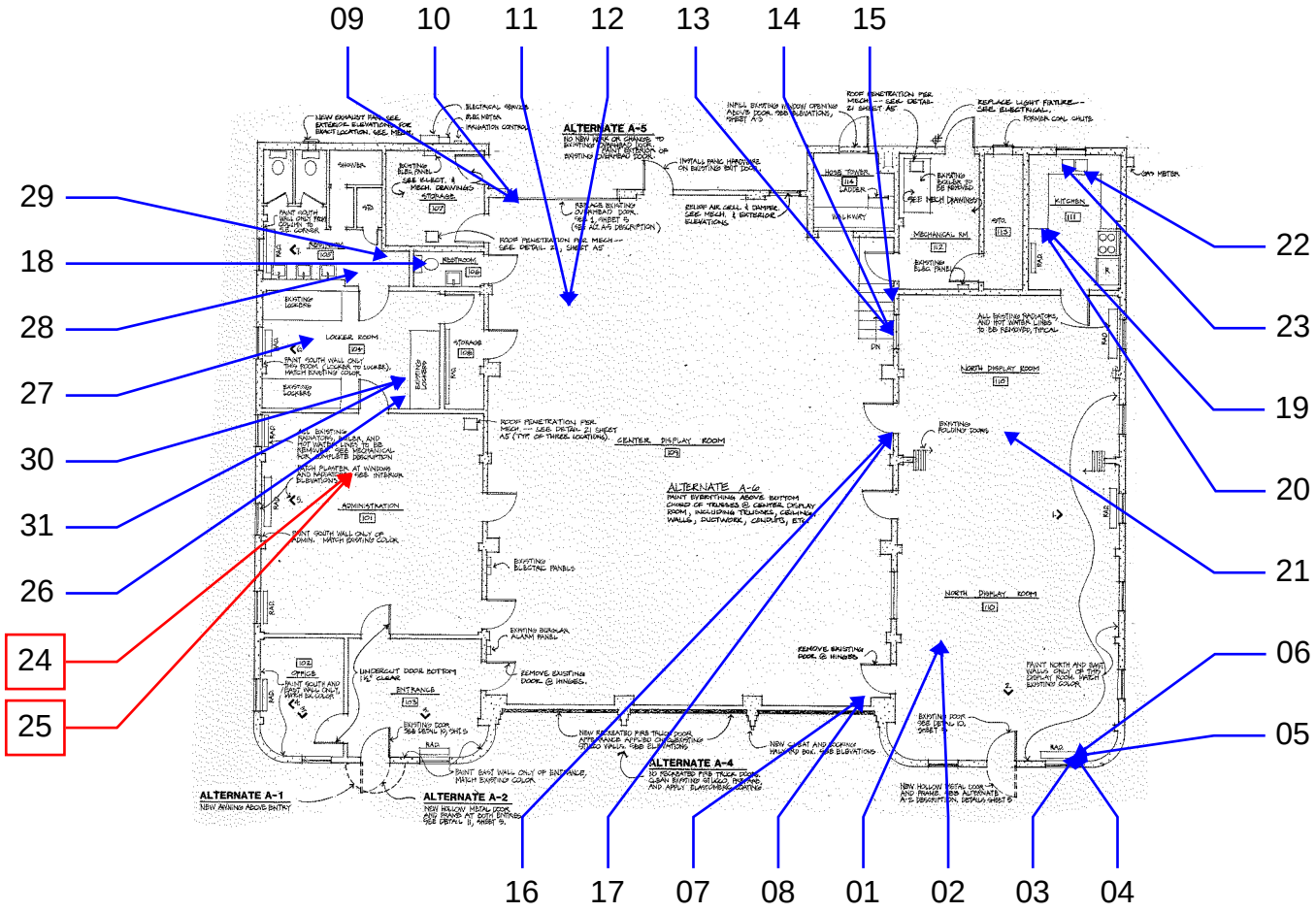
Visually identified suspect materials assumed to be asbestos-containing appear in triangles EX: V-# →

Asbestos Samples

01- ACT & Mastic (C)
02- ACT & Mastic (C)
03- Hard Plaster w/ Tan Scratch Coat (W)
04- Hard Plaster w/ Tan Scratch Coat (W)
05- Hard Plaster w/ White Finish Coat (W)
06- Hard Plaster w/ White Finish Coat (W)
07- Coating on Concrete (F)
08- Coating on Concrete (F)
09- Coating on Concrete (W)
10- Coating on Concrete (W)
11- Expansion Joint (F)
12- Expansion Joint (F)
13- Window Frame Caulk
14- Window Frame Caulk
15- Fiberglass Pipe Insulation
16- Coating on Concrete (W)
17- Coating on Concrete (W)
18- SVF (F)
19- SVF (F)
20- CBM (W)
21- Carpet Mastic (F)
22- Sink Undercoating
23- SVF (F)
24- 9x9 Tile & Tar Mastic (F)
25- 9x9 Tile & Tar Mastic (F)
26- Carpet Mastic (F)
27- 12x12 Tile (F)
28- 12x12 Tile (F)
29- SVF (F)
30- 9x9 Tile under 12x12 Tile (F)
31- 9x9 Tile under 12x12 Tile (F)

Abbreviations and Meanings

ACT- Acoustical Ceiling Tile
SVF- Sheet Vinyl Flooring
CBM- Cove Base Mastic
W- Wall
C- Ceiling
F- Flooring



City of Renton **Renton Historical Museum Remodel** **235 Mill Avenue South** **Renton, WA 98057**	***Pacific Rim Environmental, Inc.*** 6510 Southcenter Boulevard, #40 Seattle, WA 98188 Tel. (206) 244-8965 pacrimenv.com	**Project # : 18089** **Drawing # : 01 of 01** **Sampling Date: 11/14/2024** **Drawing by : J. Dueck** **Drawing Not to Scale**

N →

Appendix B: Asbestos Inspection Summary & Asbestos Bulk Sample Lab Analysis Reports

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Inspection Summary

Project Information	
Job Number:	18089
Project Name:	Renton Historical Museum Remodel
Project Address:	235 Mill Avenue South, Renton, WA
Client:	City of Renton
Date of Survey:	13-Nov-2024
PacRim Technician:	Todd Carter
PacRim Technician 2:	Paul Hanway
Limitations:	No roof testing
Exterior Photo:	
Technician Project Description:	Museum interior and exterior
Turnaround Requested:	5 day

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	01	**Homogeneous Material #**	1
Material Description	Acoustical Ceiling Tile and mastic		
Building Component	Ceiling	**Substrate**	Plaster
Homogen. Mtl Area	N/A		
Sample Location	Room 110		
Quantity	700	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (Both Layers)**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	02	**Homogeneous Material #**	1
Material Description	Acoustical Ceiling Tile and mastic		
Building Component	Ceiling	**Substrate**	Plaster
Homogen. Mtl Area	N/A		
Sample Location	Room 110		
Quantity	See 01	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (Both Layers)**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	03	**Homogeneous Material #**	2
Material Description	Hard Plaster Wall tan scratch coat		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Damage Assessment	Damaged		
Sample Location	Room 110		
Quantity	10	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

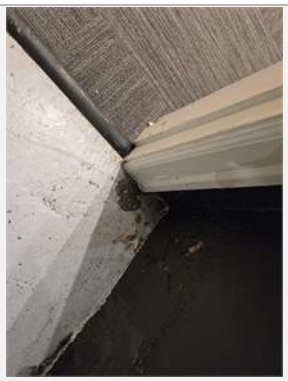
Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	04	**Homogeneous Material #**	2
Material Description	Hard Plaster Wall tan scratch coat		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 110		
Quantity	See 03	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	05	**Homogeneous Material #**	3
Material Description	Hard Plaster Wall white finish coat		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Damage Assessment	Damaged		
Sample Location	Room 110		
Quantity	10	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	06	**Homogeneous Material #**	3
Material Description	Hard Plaster Wall white finish coat		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 110		
Quantity	See 05	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	07	**Homogeneous Material #**	4
Material Description	Coating on concrete floor		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Quantity	2000	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	08	**Homogeneous Material #**	4
Material Description	Coating on concrete floor		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Quantity	See 07	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	09	**Homogeneous Material #**	5
Material Description	Coating on concrete wall		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Damage Assessment	Damaged		
Sample Location	Room 109		
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	10	**Homogeneous Material #**	5
Material Description	Coating on concrete wall		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Damage Assessment	Damaged		
Sample Location	Room 109		
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	11	**Homogeneous Material #**	6
Material Description	Expansion Joint		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Quantity	70	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	12	**Homogeneous Material #**	6
Material Description	Expansion Joint		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Quantity	See 11	**Unit of Measure**	
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	13	**Homogeneous Material #**	7
Material Description	Window Frame Caulk		
Building Component	Window	**Substrate**	Metal
Homogen. Mtl Area	N/A		
Sample Location	Stairs to basement		
Quantity	2	**Unit of Measure**	Each
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	14	**Homogeneous Material #**	7
Material Description	Window Frame Caulk		
Building Component	Window	**Substrate**	Metal
Homogen. Mtl Area	N/A		
Sample Location	Stairs to basement		
Quantity	See 13	**Unit of Measure**	Each
Asbestos Type/%	**None Detected**		
Sample Photo			

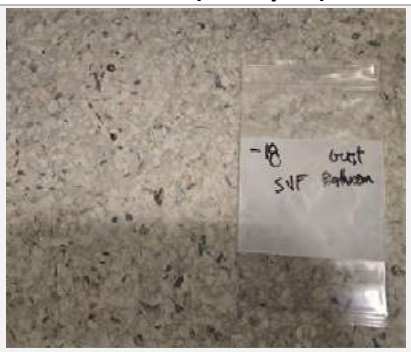
Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	TSI
Sample Number	15	**Homogeneous Material #**	8
Material Description	Fiberglass pipe insulation		
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Quantity	100	**Unit of Measure**	Lineal Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

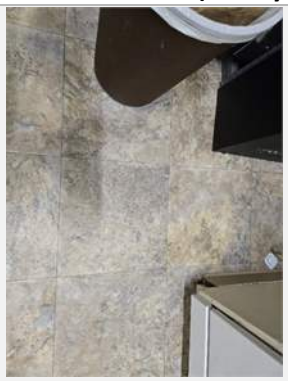
Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	16	**Homogeneous Material #**	9
Material Description	Coating on concrete wall		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Surfacing
Sample Number	17	**Homogeneous Material #**	9
Material Description	Coating on concrete		
Building Component	Wall	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 109		
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	18	**Homogeneous Material #**	10
Material Description	Sheet Vinyl Flooring		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Guest restroom		
Quantity	74	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	19	**Homogeneous Material #**	11
Material Description	Sheet Vinyl Flooring		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Kitchen		
Quantity	150	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	20	**Homogeneous Material #**	12
Material Description	Cove Base Mastic		
Building Component	Wall	**Substrate**	Wood
Homogen. Mtl Area	N/A		
Sample Location	Kitchen		
Quantity	40	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	21	**Homogeneous Material #**	13
Material Description	Carpet Mastic		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 110		
Quantity	700	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	22	**Homogeneous Material #**	14
Material Description	Sink Undercoating		
Homogen. Mtl Area	N/A		
Sample Location	Kitchen		
Quantity	1	**Unit of Measure**	Each
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	23	**Homogeneous Material #**	15
Material Description	Sheet Vinyl Flooring		
Building Component	Floor	**Substrate**	Wood
Homogen. Mtl Area	N/A		
Sample Location	Kitchen cabinet below sink		
Quantity	6	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (Both Layers)**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	24	**Homogeneous Material #**	16
Material Description	9x9 Floor Tile and tar mastic		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 104 under carpet tile		
Quantity	300	**Unit of Measure**	Square Feet
Asbestos Type/%	**Layer 1: (Yellow Mastic) None Detected** **Layer 2: (Green Floor Tile) Chrysotile 3-5%** **Layer 3: (Black Mastic) Chrysotile 3-5%**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	25	**Homogeneous Material #**	16
Material Description	9x9 Floor Tile and tar mastic		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 101		
Quantity	See 24	**Unit of Measure**	Square Feet
Asbestos Type/%	**Layer 1: (Yellow Mastic) None Detected** **Layer 2: (Green Floor Tile) Chrysotile 3-5%** **Layer 3: (Black Mastic) Chrysotile 3-5%**		
Sample Photo			

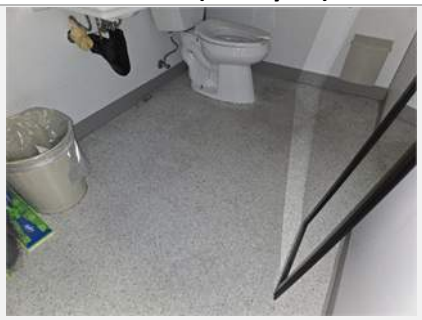
Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	26	**Homogeneous Material #**	17
Material Description	Carpet Mastic		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 101		
Quantity	300	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	27	**Homogeneous Material #**	18
Material Description	12x12 Floor Tile		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 104		
Quantity	80	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (Both Layers)**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	28	**Homogeneous Material #**	19
Material Description	12x12 Floor Tile		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 104 record storage		
Quantity	300	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	29	**Homogeneous Material #**	20
Material Description	Sheet Vinyl Flooring		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Employee restroom		
Quantity	100	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Asbestos Sample		Sample Date: 13-Nov-2024	
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	30	**Homogeneous Material #**	21
Material Description	9x9 Floor Tile under 12x12 tile		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 104		
Quantity	300	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Asbestos Sample			Sample Date: 13-Nov-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Physical Sample	**AHERA Category**	Miscellaneous
Sample Number	31	**Homogeneous Material #**	21
Material Description	9x9 Floor Tile under 12x12 tile		
Building Component	Floor	**Substrate**	Concrete
Homogen. Mtl Area	N/A		
Sample Location	Room 104		
Quantity	See 30	**Unit of Measure**	Square Feet
Asbestos Type/%	**None Detected (All Layers)**		
Sample Photo			

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name:	**City of Renton** 1055 S. Grady Way Renton WA 98055	**PacRim Number:**	18089
		Report Number:	2024-11-0203
		Date Received:	11/13/2024
		Analysis Start Date:	11/19/2024
Customer Project Number:	None Given	**Analysis End Date:**	11/19/2024
Project Name:	Renton Historical Museum Remodel	**Turnaround Time:**	3-5 Days
Project Address:	235 Mill Avenue South Renton WA 98057	**Report Date:**	11/19/2024
		Report By:	Shannon Clegg
		Analyst(s):	Shannon Clegg
PO Number:	None Given	**Samples Analyzed for this report**	
Sample Date:	13-Nov-2024	**Beginning Laboratory ID Number:**	**2024-11-0203**
Total Samples:	31	**Ending Laboratory ID Number:**	**2024-11-0233**
			Sample Set Number 2024-3960

The bulk samples submitted were analyzed for asbestos content using Polarized Light Microscopy (PLM). Analysis was performed in accordance with Appendix E to Subpart E of 40 CFR Part 763 and EPA/600/R93/116.

The test results pertain only to the samples submitted for analysis. Unless otherwise noted, the samples were inhomogeneous; subsamples of components were analyzed to achieve representative analysis. Separate layers of layered samples were analyzed and reported separately. Unless otherwise stated, asbestos content was quantified by calibrated visual estimation (CVES). CVES concentrations are reported in two to three percent ranges for fiber concentrations ranging from one to ten percent, and usually five percent ranges for concentrations greater than ten percent. Samples in which asbestos was not observed are reported as “None Detected”.

Limitations and Uncertainty:

Factors such as sample quality, sample size, interfering matrix material, fiber size, and fiber concentration contribute to the uncertainty in asbestos concentration estimates in bulk materials. Relative errors exceeding 100% may occur in samples containing less than ten percent asbestos. Relative errors are typically below thirty percent in samples having greater than ten percent asbestos, and approach zero as asbestos concentrations approach 100%.

Asbestos fibers with diameters less than approximately 0.25 microns are not detectable by PLM. Fibers with larger diameters may not be visible if obscured by interfering matrix materials. These extremely fine fibers may occur in floor tiles, adhesives, products with cement binders, and other non-friable or semi-friable materials. This limitation can be overcome using alternative analytical methods, such as Transmission Electron Microscopy (TEM).

This report cannot be represented by the customer to claim product endorsement by the National Voluntary Accreditation Program (NVLAP), or any agency of the United States government. This report shall not be reproduced except in full without written permission from Pacific Rim Environmental, Inc. **(**PacRim).

NVLAP Accredited Lab #: 101631-0
Samples Submitted by: PacRim

Report Reviewed by: 11/19/2024
Approved Signatory

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name: City of Renton
Customer Project Number: None Given
Project Name: Renton Historical Museum Remodel
Sample Date: 13-Nov-2024
Report Date: 11/19/2024
Report By: Shannon Clegg

Sample Set Number
2024-3960

PacRim Number: 18089
Report Number: 2024-11-0203
Date Received: 11/13/2024
Analysis Start Date: 11/19/2024
Analysis End Date: 11/19/2024
Analyst(s): Shannon Clegg

Field Sample Number: 01
Lab ID: **2024-11-0203**
Field Sample Description: Acoustical Ceiling Tile and mastic
Field Sample Location: Room 110
Analyst: SLC
Analysis Date: 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Brown, fibrous ceiling tile	**None Detected**	Cellulose 90-95%	Binder, Mineral Aggregate, Paint
Layer: 2 Brown mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 02
Lab ID: **2024-11-0204**
Field Sample Description: Acoustical Ceiling Tile and mastic
Field Sample Location: Room 110
Analyst: SLC
Analysis Date: 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Brown, fibrous ceiling tile	**None Detected**	Cellulose 90-95%	Binder, Mineral Aggregate, Paint
Layer: 2 Brown mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 03
Lab ID: **2024-11-0205**
Field Sample Description: Hard Plaster Wall tan scratch coat
Field Sample Location: Room 110
Analyst: SLC
Analysis Date: 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Tan scratch coat	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate

Field Sample Number: 04
Lab ID: **2024-11-0206**
Field Sample Description: Hard Plaster Wall tan scratch coat
Field Sample Location: Room 110
Analyst: SLC
Analysis Date: 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Tan scratch coat	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate

Field Sample Number: 05
Lab ID: **2024-11-0207**
Field Sample Description: Hard Plaster Wall white finish coat
Field Sample Location: Room 110
Analyst: SLC
Analysis Date: 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
White finish coat	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name:	**City of Renton**	**PacRim Number:**	18089
Customer Project Number:	None Given	**Report Number:**	2024-11-0203
Project Name:	Renton Historical Museum Remodel	**Date Received:**	11/13/2024
Sample Date:	13-Nov-2024	**Analysis Start Date:**	11/19/2024
Report Date:	11/19/2024	**Analysis End Date:**	11/19/2024
Report By:	Shannon Clegg	**Analyst(s):**	Shannon Clegg

Sample Set Number 2024-3960

Field Sample Number: 06 | **Lab ID:** **2024-11-0208** | **Field Sample Description:** Hard Plaster Wall white finish coat | **Field Sample Location:** Room 110 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
White finish coat	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate

Field Sample Number: 07 | **Lab ID:** **2024-11-0209** | **Field Sample Description:** Coating on concrete floor | **Field Sample Location:** Room 109 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Grey, cementitious concrete coating	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 08 | **Lab ID:** **2024-11-0210** | **Field Sample Description:** Coating on concrete floor | **Field Sample Location:** Room 109 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Grey, cementitious concrete coating	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 09 | **Lab ID:** **2024-11-0211** | **Field Sample Description:** Coating on concrete wall | **Field Sample Location:** Room 109 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Mud coating material	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 10 | **Lab ID:** **2024-11-0212** | **Field Sample Description:** Coating on concrete wall | **Field Sample Location:** Room 109 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Mud coating material	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate

Field Sample Number: 11 | **Lab ID:** **2024-11-0213** | **Field Sample Description:** Expansion Joint | **Field Sample Location:** Room 109 | **Analyst:** SLC | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Tan expansion joint	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name:	**City of Renton**	**PacRim Number:**	18089
Customer Project Number:	None Given	**Report Number:**	2024-11-0203
Project Name:	Renton Historical Museum Remodel	**Date Received:**	11/13/2024
Sample Date:	13-Nov-2024	**Analysis Start Date:**	11/19/2024
Report Date:	11/19/2024	**Analysis End Date:**	11/19/2024
Report By:	Shannon Clegg	**Analyst(s):**	Shannon Clegg

Sample Set Number 2024-3960

Field Sample Number: 12 | **Field Sample Description:** Expansion Joint | **Field Sample Location:** Room 109 | **Analyst:** SLC
Lab ID: **2024-11-0214** | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Tan expansion joint	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 13 | **Field Sample Description:** Window Frame Caulk | **Field Sample Location:** Stairs to basement | **Analyst:** SLC
Lab ID: **2024-11-0215** | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Grey caulk	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 14 | **Field Sample Description:** Window Frame Caulk | **Field Sample Location:** Stairs to basement | **Analyst:** SLC
Lab ID: **2024-11-0216** | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Grey caulk	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 15 | **Field Sample Description:** Fiberglass pipe insulation | **Field Sample Location:** Room 109 | **Analyst:** SLC
Lab ID: **2024-11-0217** | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Yellow fibrous insulation	**None Detected**	Fibrous Glass 90-95%	Binder, Mineral Aggregate
Layer: 2 Black mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Tar
Layer: 3 Grey, fibrous wrap with silver foil backing	**None Detected**	Cellulose 40-45%	Binder, Mineral Aggregate

Field Sample Number: 16 | **Field Sample Description:** Coating on concrete wall | **Field Sample Location:** Room 109 | **Analyst:** SLC
Lab ID: **2024-11-0218** | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Grey coating material	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name: City of Renton
Customer Project Number: None Given
Project Name: Renton Historical Museum Remodel
Sample Date: 13-Nov-2024
Report Date: 11/19/2024
Report By: Shannon Clegg

Sample Set Number
2024-3960

PacRim Number: 18089
Report Number: 2024-11-0203
Date Received: 11/13/2024
Analysis Start Date: 11/19/2024
Analysis End Date: 11/19/2024
Analyst(s): Shannon Clegg

Field Sample Number: 17 | **Field Sample Description:** Coating on concrete | **Field Sample Location:** Room 109 | **Analyst:** SLC
Lab ID: 2024-11-0219 | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Grey coating material	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Paint

Field Sample Number: 18 | **Field Sample Description:** Sheet Vinyl Flooring | **Field Sample Location:** Guest restroom | **Analyst:** SLC
Lab ID: 2024-11-0220 | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 White sheet vinyl flooring	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2 Grey, fibrous paper backing	**None Detected**	Cellulose 35-40% Fibrous Glass 8-10%	Binder, Mineral Aggregate
Layer: 3 Yellow mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 19 | **Field Sample Description:** Sheet Vinyl Flooring | **Field Sample Location:** Kitchen | **Analyst:** SLC
Lab ID: 2024-11-0221 | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Grey sheet vinyl flooring	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2 Grey, fibrous paper backing	**None Detected**	Cellulose 35-40% Fibrous Glass 8-10%	Binder, Mineral Aggregate
Layer: 3 Yellow mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 20 | **Field Sample Description:** Cove Base Mastic | **Field Sample Location:** Kitchen | **Analyst:** SLC
Lab ID: 2024-11-0222 | **Analysis Date:** 11/18/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Grey cove base	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2 Tan mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive
Layer: 3 Brown mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name: City of Renton
Customer Project Number: None Given
Project Name: Renton Historical Museum Remodel
Sample Date: 13-Nov-2024
Report Date: 11/19/2024
Report By: Shannon Clegg

Sample Set Number
2024-3960

PacRim Number: 18089
Report Number: 2024-11-0203
Date Received: 11/13/2024
Analysis Start Date: 11/19/2024
Analysis End Date: 11/19/2024
Analyst(s): Shannon Clegg

Field Sample Number: 21 | **Field Sample Description:** Carpet Mastic | **Field Sample Location:** Room 110 | **Analyst:** SLC
Lab ID: **2024-11-0223** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Yellow mastic	**None Detected**	Cellulose <1% Synthetics <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 22 | **Field Sample Description:** Sink Undercoating | **Field Sample Location:** Kitchen | **Analyst:** SLC
Lab ID: **2024-11-0224** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Black sink undercoat	**None Detected**	Synthetics 1-3% Cellulose <1%	Binder, Mineral Aggregate, Tar

Field Sample Number: 23 | **Field Sample Description:** Sheet Vinyl Flooring | **Field Sample Location:** Kitchen cabinet below sink | **Analyst:** SLC
Lab ID: **2024-11-0225** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Off-white sheet vinyl flooring	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2 Grey, fibrous paper backing	**None Detected**	Cellulose 45-50% Synthetics 1-3% Fibrous Glass <1%	Binder, Mineral Aggregate

Field Sample Number: 24 | **Field Sample Description:** 9x9 Floor Tile and tar mastic | **Field Sample Location:** Room 104 under carpet tile | **Analyst:** SLC
Lab ID: **2024-11-0226** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1 Yellow mastic	**None Detected**	Cellulose <1% Synthetics <1%	Binder, Mineral Aggregate, Adhesive
Layer: 2 Green floor tile	**Chrysotile 3-5%**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 3 Black mastic	**Chrysotile 3-5%**	Cellulose <1%	Binder, Mineral Aggregate, Tar

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name: City of Renton
Customer Project Number: None Given
Project Name: Renton Historical Museum Remodel
Sample Date: 13-Nov-2024
Report Date: 11/19/2024
Report By: Shannon Clegg

Sample Set Number
2024-3960

PacRim Number: 18089
Report Number: 2024-11-0203
Date Received: 11/13/2024
Analysis Start Date: 11/19/2024
Analysis End Date: 11/19/2024
Analyst(s): Shannon Clegg

Field Sample Number: 25 | **Field Sample Description:** 9x9 Floor Tile and tar mastic | **Field Sample Location:** Room 101 | **Analyst:** SLC
Lab ID: **2024-11-0227** | **Analysis Date:** 11/19/2024

	Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1	Yellow mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive
Layer: 2	Green floor tile	**Chrysotile 3-5%**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 3	Black mastic	**Chrysotile 3-5%**	Cellulose <1%	Binder, Mineral Aggregate, Tar

Field Sample Number: 26 | **Field Sample Description:** Carpet Mastic | **Field Sample Location:** Room 101 | **Analyst:** SLC
Lab ID: **2024-11-0228** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Yellow mastic	**None Detected**	Cellulose <1% Synthetics <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 27 | **Field Sample Description:** 12x12 Floor Tile | **Field Sample Location:** Room 104 | **Analyst:** SLC
Lab ID: **2024-11-0229** | **Analysis Date:** 11/19/2024

	Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1	White floor tile	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2	Yellow mastic	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 28 | **Field Sample Description:** 12x12 Floor Tile | **Field Sample Location:** Room 104 record storage | **Analyst:** SLC
Lab ID: **2024-11-0230** | **Analysis Date:** 11/19/2024

Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
White floor tile	**None Detected**	Cellulose <1%	Binder, Mineral Aggregate, Vinyl

Pacific Rim Environmental Inc.
Bulk Sample Analysis Report

Customer Name: City of Renton
Customer Project Number: None Given
Project Name: Renton Historical Museum Remodel
Sample Date: 13-Nov-2024
Report Date: 11/19/2024
Report By: Shannon Clegg

Sample Set Number
2024-3960

PacRim Number: 18089
Report Number: 2024-11-0203
Date Received: 11/13/2024
Analysis Start Date: 11/19/2024
Analysis End Date: 11/19/2024
Analyst(s): Shannon Clegg

Field Sample Number: 29 | **Field Sample Description:** Sheet Vinyl Flooring | **Field Sample Location:** Employee restroom | **Analyst:** SLC
Lab ID: 2024-11-0231 | **Analysis Date:** 11/19/2024

	Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1	White sheet vinyl flooring	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Vinyl
Layer: 2	Grey, fibrous paper backing	None Detected	Cellulose 35-40% Fibrous Glass 8-10%	Binder, Mineral Aggregate
Layer: 3	Yellow mastic	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Adhesive

Field Sample Number: 30 | **Field Sample Description:** 9x9 Floor Tile under 12x12 tile | **Field Sample Location:** Room 104 | **Analyst:** SLC
Lab ID: 2024-11-0232 | **Analysis Date:** 11/19/2024

	Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1	Yellow mastic	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Adhesive
Layer: 2	Grey floor tile	None Detected	Cellulose 1-3%	Binder, Mineral Aggregate
Layer: 3	Black mastic	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Tar

Field Sample Number: 31 | **Field Sample Description:** 9x9 Floor Tile under 12x12 tile | **Field Sample Location:** Room 104 | **Analyst:** SLC
Lab ID: 2024-11-0233 | **Analysis Date:** 11/19/2024

	Lab Sample Description	Asbestos Type/%	Non-Asbestos Fibers	Non-Fibrous Materials
Layer: 1	Yellow mastic	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Adhesive
Layer: 2	Grey floor tile	None Detected	Cellulose <1%	Binder, Mineral Aggregate
Layer: 3	Black mastic	None Detected	Cellulose <1%	Binder, Mineral Aggregate, Tar

Appendix C: Lead-Based Paint (XRF) Data Sheets & XRF Performance Characteristic Sheet

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead-Based Paint (XRF) Data Sheet

Client:	**City of Renton**	XRF Serial #:	**01183**
Project:	**Renton Historical Museum Remodel**	Inspection Date:	**15-Nov-2024**
Project Address:	**235 Mill Avenue South, Renton, WA**	Inspection By:	**Todd Carter**
Reviewed by:	**Jamie Dueck**	PacRim Job#	**18089**

Sample#	Calibration	Substrate	Component	Location	Color	Result*	Pb mg/cm^2
01	Yes		System Calibration			Pass	1.16
02	Yes		System Calibration			Pass	1.17
03	Yes		System Calibration			Pass	1.18
04	No	Concrete	Floor	Main display room	Grey	Negative	0.00
05	No	Plaster	Wall	Room 2	White	Negative	0.00
06	No	Plaster	Window sill	Room 2	White	Negative	0.00
07	No	Concrete	Wall	Room 1	Black	Negative	0.55
08	No	Plaster	Wall	Entry lobby	White	Negative	0.00
09	No	Plaster	Wall	Office	White	Negative	0.00
10	No	Plaster	Window sill	Office	White	Negative	0.00
11	No	Concrete	Wall	Room 1	Beige	Negative	0.68
12	**No**	**Wood**	**Door trim**	**Room 1**	**Beige**	**Positive**	**1.92**
13	No	Concrete	Wall	Room 1	Beige	Negative	0.62
14	**No**	**Wood**	**Door**	**Electric Room**	**Beige**	**Positive**	**1.59**
15	No	Plaster	Wall	Office	White	Negative	0.00

** HUD standard is 1.0 mg/cm^2 WISHA standard is any amount of lead is considered lead containing material*

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Sample#	Calibration	Substrate	Component	Location	Color	Result*	Pb mg/cm^2
16	No	Wood	Door trim	Office	White	Negative	0.20
17	No	Wood	Door trim	Office	White	Negative	0.61
18	No	Concrete	Wall	Stairwell	White	Negative	0.81
19	No	Concrete	Wall	Room 1	Black	Negative	0.72
20	Yes		System Calibration			Pass	1.18
21	Yes		System Calibration			Pass	1.22
22	Yes		System Calibration			Pass	1.16

** HUD standard is 1.0 mg/cm^2 WISHA standard is any amount of lead is considered lead containing material*

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead Inspection Summary

Project Information	
Job Number:	18089
Project Name:	Renton Historical Museum Remodel
Project Address:	235 Mill Avenue South, Renton, WA
Client:	City of Renton
Date of Survey:	15-Nov-2024
PacRim Technician:	Todd Carter
Exterior Photo:	
Limitations:	Lead screen for renovation
XRF ID#:	01183
Technician signature	TC

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead Samples	
Sample Number	-117
Calibration	No
Substrate Description	Concrete
Component	Wall
Color	Black
Sample Location	Room 1
XRF Reading (Mg/cm2 lead)	0.55
Result	Negative
Sample Photo	

Lead Samples	
Sample Number	-121
Calibration	No
Substrate Description	Concrete
Component	Wall
Color	Beige
Sample Location	Room 1
XRF Reading (Mg/cm2 lead)	0.68
Result	Negative
Sample Photo	

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead Samples	
Sample Number	-122
Calibration	No
Substrate Description	Wood
Component	Door trim
Color	Beige
Sample Location	Room 1
XRF Reading (Mg/cm2 lead)	1.92
Result	Positive
Sample Photo	

Lead Samples	
Sample Number	-124
Calibration	No
Substrate Description	Wood
Component	Door
Color	Beige
Sample Location	Elec Room
XRF Reading (Mg/cm2 lead)	1.59
Result	Positive
Sample Photo	

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead Samples	
Sample Number	-126
Calibration	No
Substrate Description	Wood
Component	Door trim
Color	White
Sample Location	Office
XRF Reading (Mg/cm2 lead)	0.20
Result	Negative
Sample Photo	

Lead Samples	
Sample Number	-127
Calibration	No
Substrate Description	Wood
Component	Door trim
Color	White
Sample Location	Office
XRF Reading (Mg/cm2 lead)	0.61
Result	Negative
Sample Photo	

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead Samples	
Sample Number	-128
Calibration	No
Substrate Description	Concrete
Component	Wall
Color	White
Sample Location	Stairwell
XRF Reading (Mg/cm2 lead)	0.81
Result	Negative

Lead Samples	
Sample Number	-129
Calibration	No
Substrate Description	Concrete
Component	Wall
Color	Black
Sample Location	Room 1
XRF Reading (Mg/cm2 lead)	0.72
Result	Negative

Performance Characteristic Sheet

EFFECTIVE DATE: **February 1, 2022**

MANUFACTURER AND MODEL:

Make: ***SciAps***
Models: ***Model X-550***
X-Ray Source: ***Rhodium (Rh) or Gold (Au) Anode***

FIELD OPERATION GUIDANCE

ACTION LEVEL SETTING IN THE INSTRUMENT: 1.0 mg/cm²

NOTE: This PCS is not applicable at other Action Level settings; the Action Level setting of the instrument must be 1.0 mg/cm² to use this PCS.

OPERATING PARAMETERS:

Timed mode: fixed 10-second reading.

Quick mode: variable-time reading (approximately 2-6 seconds).

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm² (inclusive) on NIST SRM 2579 (1.02 mg/cm²)/NIST SRM 2573, or equivalent

SUBSTRATE CORRECTION:

Not applicable

INCONCLUSIVE RANGE OR THRESHOLD:

Rh Anode (Timed or Quick) READING DESCRIPTION	**SUBSTRATE**	**THRESHOLD (mg/cm²)**
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	0.5 0.5 0.5 0.5 0.5 0.5
Au Anode (Timed or Quick) READING DESCRIPTION	**SUBSTRATE**	**INCONCLUSIVE RANGE (mg/cm²)**
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	(0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6)

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, 2012 Edition ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in February 2022, with two separate instruments of each Anode type, operated in both Timed and Quick modes.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film; for NIST SRM 2579a, use film 2573 (1.04 mg/cm²).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below. Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this

procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

The reading time in Archive tests was 10 seconds in Timed mode and from 2-6 seconds in Quick mode, for both the Rh Anode and Au Anode.

CLASSIFICATION OF RESULTS:

XRF results for the Rh Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.5 mg/cm² and ***negative*** if they are ***less than*** 0.5 mg/cm².

XRF results for the Au Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.6 mg/cm², ***negative*** if they are ***less than or equal*** to 0.4 mg/cm² and ***inconclusive*** if they are ***greater*** than 0.4 mg/cm² **AND** ***less than*** 0.6 mg/cm².

DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to develop Performance Characteristic Sheets at the Federal standard (Action Level) of 1.0 mg/cm² and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997. The methodology was subsequently generalized by QuanTech for application to other Action Levels.

Appendix D: Universal Waste Identification Summary

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Universal Waste Inspection Summary

Project Information	
Job Number:	18089
Project Name:	Renton Historical Museum Remodel
Project Address:	235 Mill Avenue South, Renton, WA
Client:	City of Renton
Date of Survey:	13-Nov-2024
PacRim Technician:	Todd Carter
PacRim Technician 2:	Paul Hanway
Exterior Photo:	
Technician Project Description:	Museum interior and exterior
Turnaround Requested:	5 Day

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Universal Waste Sample			Sample Date: 17-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-01		
Material Description	Exit signs		
Quantity	5	**Unit of Measure**	Each
Sample Photo			
Sample Location Photo			

Universal Waste Sample			Sample Date: 17-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-02		
Material Description	8-foot 2-tube fluorescent lights		
Quantity	12	**Unit of Measure**	Each
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Universal Waste Sample			Sample Date: 17-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-03		
Material Description	4-foot 4-tube fluorescent lights		
Quantity	12	**Unit of Measure**	Each
Sample Photo			

Universal Waste Sample			Sample Date: 18-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-04		
Material Description	4-foot 1-tube electric lights		
Quantity	2	**Unit of Measure**	Each
Sample Photo			

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Universal Waste Sample			Sample Date: 18-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-05		
Material Description	4-foot 2-tube fluorescent lights		
Quantity	4	**Unit of Measure**	Each
Sample Photo			

Universal Waste Sample			Sample Date: 18-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-06		
Material Description	8-foot 2-tube fluorescent lights		
Quantity	1	**Unit of Measure**	Each
Sample Photo			

Universal Waste Sample			Sample Date: 18-May-2024
Project Name	Renton Historical Museum Remodel		
Sample Type	Universal Waste		
Sample Number	UW-07		
Material Description	4-foot 2-tube electric lights		
Quantity	7	**Unit of Measure**	Each

Appendix E: Polychlorinated Biphenyls Inspection Summary & PCB Lab Analysis Report

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

PCB Inspection Summary

Project Information	
Job Number	18089
Project Name	Renton Historical Museum Remodel
Project Address:	235 Mill Avenue South, Renton, WA
Client:	Performance Abatement Svc.
Date of Survey:	13-Nov-2024
PacRim Technician:	Todd Carter
PacRim Technician 2:	Paul Hanway
Exterior Photo:	

PCB Sample	
Project Name	Renton Historical Museum Remodel
Sample Date	13-Nov-2024
Sample Type	Solid
Sample Number	PCB-01
Material Description	Expansion Joint
Sample Location	Main viewing area
PCB Result	**<0.02 ppm**

FRIEDMAN & BRUYA, INC.

ENVIRONMENTAL CHEMISTS

James E. Bruya, Ph.D.
Yelena Aravkina, M.S.
Michael Erdahl, B.S.
Vineta Mills, M.S.
Eric Young, B.S.

5500 4th Ave South
Seattle, WA 98108-2419
(206) 285-8282
office@friedmanandbruya.com
www.friedmanandbruya.com

November 19, 2024

Paul Hanway, Project Manager
Pacific Rim Environmental
6510 Southcenter Blvd., Suite 40
Seattle, WA 98188

Dear Mr Hanway:

Included are the results from the testing of material submitted on November 13, 2024 from the Renton Museum 18089, F&BI 411194 project. There are 5 pages included in this report. Any samples that may remain are currently scheduled for disposal in 30 days, or as directed by the Chain of Custody document. If you would like us to return your samples or arrange for long term storage at our offices, please contact us as soon as possible.

We appreciate this opportunity to be of service to you and hope you will call if you should have any questions.

Sincerely,

FRIEDMAN & BRUYA, INC.

Michael Erdahl
Project Manager

Enclosures
c: Pacific Rim A/P (PRM), Mark Hohn
PRM1119R.DOC

CASE NARRATIVE

This case narrative encompasses samples received on November 13, 2024 by Friedman & Bruya, Inc. from the Pacific Rim Environmental Renton Museum 18089, F&BI 411194 project. Samples were logged in under the laboratory ID's listed below.

Laboratory ID	Pacific Rim Environmental
411194 -01	PCB-01

All quality control requirements were acceptable.

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	PCB-01	Client:	Pacific Rim Environmental
Date Received:	11/13/24	Project:	Renton Museum 18089
Date Extracted:	11/14/24	Lab ID:	411194-01 1/600
Date Analyzed:	11/15/24	Data File:	111510.D
Matrix:	Soil	Instrument:	GC12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	86 d	41	139
Decachlorobiphenyl	106 d	48	145

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.4
Aroclor 1232	<0.4
Aroclor 1016	<0.4
Aroclor 1242	<0.4
Aroclor 1248	<0.4
Aroclor 1254	<0.4
Aroclor 1260	<0.4
Aroclor 1262	<0.4
Aroclor 1268	<0.4

Analysis For PCBs By EPA Method 8082A

Client Sample ID:	Method Blank	Client:	Pacific Rim Environmental
Date Received:	Not Applicable	Project:	Renton Museum 18089
Date Extracted:	11/14/24	Lab ID:	04-2824 mb 1/30
Date Analyzed:	11/14/24	Data File:	111442.D
Matrix:	Soil	Instrument:	GC12
Units:	mg/kg (ppm) Dry Weight	Operator:	VM

Surrogates:	% Recovery:	Lower Limit:	Upper Limit:
Tetrachlorometaxylene	79	41	139
Decachlorobiphenyl	106	48	145

Compounds:	Concentration mg/kg (ppm)
Aroclor 1221	<0.02
Aroclor 1232	<0.02
Aroclor 1016	<0.02
Aroclor 1242	<0.02
Aroclor 1248	<0.02
Aroclor 1254	<0.02
Aroclor 1260	<0.02
Aroclor 1262	<0.02
Aroclor 1268	<0.02

Date of Report: 11/19/24
Date Received: 11/13/24
Project: Renton Museum 18089, F&BI 411194

QUALITY ASSURANCE RESULTS FOR THE ANALYSIS OF SOIL SAMPLES FOR POLYCHLORINATED BIPHENYLS AS AROCLOR 1016/1260 BY EPA METHOD 8082A

Laboratory Code: Laboratory Control Sample 1/30

Analyte	Reporting Units	Spike Level	Percent Recovery LCS	Percent Recovery LCSD	Acceptance Criteria	RPD (Limit 20)
Aroclor 1016	mg/kg (ppm)	0.25	92	98	50-138	6
Aroclor 1260	mg/kg (ppm)	0.25	100	108	54-146	8

Data Qualifiers & Definitions

a - The analyte was detected at a level less than five times the reporting limit. The RPD results may not provide reliable information on the variability of the analysis.

b - The analyte was spiked at a level that was less than five times that present in the sample. Matrix spike recoveries may not be meaningful.

ca - The calibration results for the analyte were outside of acceptance criteria, biased low; or, the calibration results for the analyte were outside of acceptance criteria, biased high, with a detection for the analyte in the sample. The value reported is an estimate.

c - The presence of the analyte may be due to carryover from previous sample injections.

cf - The sample was centrifuged prior to analysis.

d - The sample was diluted. Detection limits were raised and surrogate recoveries may not be meaningful.

dv - Insufficient sample volume was available to achieve normal reporting limits.

f - The sample was laboratory filtered prior to analysis.

fb - The analyte was detected in the method blank.

fc - The analyte is a common laboratory and field contaminant.

hr - The sample and duplicate were reextracted and reanalyzed. RPD results were still outside of control limits. Variability is attributed to sample inhomogeneity.

hs - Headspace was present in the container used for analysis.

ht – The analysis was performed outside the method or client-specified holding time requirement.

ip - Recovery fell outside of control limits due to sample matrix effects.

j - The analyte concentration is reported below the standard reporting limit. The value reported is an estimate.

J - The internal standard associated with the analyte is out of control limits. The reported concentration is an estimate.

jl - The laboratory control sample(s) percent recovery and/or RPD were out of control limits. The reported concentration should be considered an estimate.

js - The surrogate associated with the analyte is out of control limits. The reported concentration should be considered an estimate.

k – The calibration results for the analyte were outside of acceptance criteria, biased high, and the analyte was not detected in the sample.

lc - The presence of the analyte is likely due to laboratory contamination.

L - The reported concentration was generated from a library search.

nm - The analyte was not detected in one or more of the duplicate analyses. Therefore, calculation of the RPD is not applicable.

pc - The sample was received with incorrect preservation or in a container not approved by the method. The value reported should be considered an estimate.

ve - The analyte response exceeded the valid instrument calibration range. The value reported is an estimate.

vo - The value reported fell outside the control limits established for this analyte.

x - The sample chromatographic pattern does not resemble the fuel standard used for quantitation.

411194

SAMPLE CHAIN OF CUSTODY

11/13/24 D1

Page # _____ of _____

Report To Paul Hanneday

Company Pacific Rim Env. Inc.

Address 6510 Southcenter BLVD STE. 40

City, State, ZIP Tukwila, WA 98188

Phone 2062448965 Email pre@pacrimenv.com

SAMPLERS (*signature*)

PROJECT NAME: Renton Museum

PO #: 18089

REMARKS

Project Specific RLs - Yes / No

INVOICE TO
Dai Le
dle@pacrimenv.com

TURNAROUND TIME
Standard Turnaround
RUSH _____
Rush charges authorized by: _____

SAMPLE DISPOSAL
Dispose after 30 days
Archive Samples
Other _____

Sample ID	Lab ID	Date Sampled	Time Sampled	Sample Type	# of Jars	ANALYSES REQUESTED: NWTPH-Dx	NWTPH-Gx	BTEX EPA 8021	VOCs EPA 8260	PAHs EPA 8270	PCBs EPA 8082	Lead EPA 6020B	TCLP LEAD	RCRA 8 EPA 6020B			Notes
PCB-01	01	11/13/24	9:00	Solid	1						X						

Samples received at 11 °C

SIGNATURE	PRINT NAME	COMPANY	DATE	TIME
Relinquished by:	TODD CARTER	PAC RIM ENV	11/13/24	11:30
Received by:	Kyle Lewis	Packm	11/13/24	11:33
Relinquished by:	"	"	11/13/24	11:58
Received by:	Anh Pham	FBI	11/13/24	11:58

Friedman & Bruya, Inc.
3012 16th Avenue West
Seattle, WA 98119-2029
Ph. (206) 285-8282

Appendix F: Inspectors & Laboratory Certifications

THE ASBESTOS INSTITUTE

Certifies that

Todd Carter

has attended and received instruction in the EPA approved course

AHERA Building Inspector Refresher

on

August 15, 2024

and successfully completed and passed the competency exam.

Certificate:
ON-188748-10063-081524

Date of Examination:
15-Aug-2024

Date of Expiration:
15-Aug-2025

William T. Cavness
Director

Approved Instructor

THE ASBESTOS INSTITUTE
20033 N. 19th Ave, Building 6, Phoenix, AZ 85027
602-864-6564 – www.theasbestosinstitute.com

The person receiving this certificate has completed the requisite training for asbestos accreditation under TSCA Title II.

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Activities Program

Todd Phillip Carter

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead based paint activities as a ***Risk Assessor.***

Certification #	Issuance Date	Expiration Date
0340	04/05/2024	04/10/2027

Certificate of Completion

This is to certify that

Paul S. Hanway

has satisfactorily completed
4 hours of online refresher training as an

AHERA Building Inspector

to comply with the training requirements of

TSCA Title II, 40 CFR 763 (AHERA)

EPA Provider # 1085

195201
Certificate Number

Instructor: Tracy Bockla

Oct 17, 2024 Expires in 1 year.
Date(s) of Training

Exam Score: N/A
(if applicable)

Terracon
Explore with us

- Facilities
- Environmental
- Geotechnical
- Materials

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101631-0

Pacific Rim Environmental, Inc.

Tukwila, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2024-04-01 through 2025-03-31

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Pacific Rim Environmental, Inc.

6510 Southcenter Boulevard
Suite #40
Tukwila, WA 98188
Shannon Clegg
Phone: 765-469-4508
Email: cleggs@pacrimenv.com
http://www.pacrimenv.com

ASBESTOS FIBER ANALYSIS

NVLAP LAB CODE 101631-0

Bulk Asbestos Analysis

Code	***Description***
18/A01	*EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples*
18/A03	*EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials*

For the National Voluntary Laboratory Accreditation Program

The State of Washington Department of Ecology

Friedman & Bruya, Inc.
Seattle, WA

has complied with provisions set forth in Chapter 173-50 WAC and is hereby recognized by the Department of Ecology as an ACCREDITED LABORATORY for the analytical parameters listed on the accompanying Scope of Accreditation.

This certificate is effective January 10, 2024 and shall expire January 9, 2025.

Witnessed under my hand on January 12, 2024.

Rebecca Wood
Lab Accreditation Unit Supervisor

Laboratory ID
C578

Appendix G: Regulatory Documents WA State – Universal Waste Rule WAC 173-303-573

Mercury-containing Equipment
(WAC 173-303-573(3-4))

This publication focuses on the Universal Waste (UW) requirements for mercury-containing equipment. Publication number 98-407, *The Universal Waste Rule* provides more details on these requirements and the advantages of UW management.

How is "mercury-containing equipment" defined?

Mercury-containing equipment is a broad category of UW including any device or part of a device that contains elemental mercury necessary for its operation. Mercury has been used in hundreds of devices at levels ranging from less than a gram up to several pounds. A few examples include:

- ► Thermometers
- ► Barometers
- ► Manometers
- ► Thermostats
- ► Tilt switches
- ► Flame sensors

Mercury-containing equipment does not include:

- Mercury waste generated as a by-product of manufacturing or waste treatment.
- Elemental mercury such as in vials or jewelry containing drops of mercury.
- Dental amalgam.
- Rubber flooring made with mercury.
- Chemical compounds containing mercury (e.g., pharmaceuticals, pesticides, paints, or lab chemicals).
- Intact devices or toys with removable mercury-containing batteries or lamps (batteries and lamps can be removed and handled according to their UW category).

A **mercury-containing thermostat** is defined as a temperature control device that contains metallic mercury in an ampule attached to a bi-metal sensing element. Thermostats are a type of mercury-containing equipment and are managed in the same way, although alternative labeling is permissible.

Accumulation start date

Both used and unused MCE become wastes on the date the handler decides to discard them.

WHY IT MATTERS

Any business that generates dangerous waste must follow the dangerous waste rules, Chapter 173-303 WAC. In Washington State, the Universal Waste Rule allows less burdensome management of these wastes:

- Batteries, *(98-407a)*
- Mercury-containing equipment *(98-407c)*
- Lamps *(98-407c)*

Businesses have the choice of managing these wastes as universal waste or dangerous waste. Universal waste requirements for storage, transportation, and collection are less stringent.

Visit our website:
http://www.ecy.wa.gov/programs/hwtr/dangermat/universal_waste.html

Contact information

Rob Rieck
360-407-6751
Rori461@ecy.wa.gov

Special accommodations

To ask about the availability of this document in a version for the visually impaired, call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. Persons with hearing loss, call 711 for Washington Relay Service. Persons with a speech disability, call 877-833-6341.

Labeling and marking MCE

Label or mark each device or container of devices with one of the following phrases:

- Universal Waste – Mercury-containing equipment
- Waste Mercury-containing equipment
- Used Mercury-containing equipment

Labeling and marking thermostats

As one option, you may label or mark single thermostats or a container of thermostats with one of the following phrases:

- Universal Waste – Mercury thermostat(s)
- Waste Mercury thermostat(s)
- Used Mercury thermostat(s)

Accumulation and dating

You can accumulate MCE for one year from the date they are generated. To document this, the collection container or individual UW device is typically marked with the first date a device is placed in it. An extension to the one-year accumulation limit is allowed if the facility needs more time to collect enough items to facilitate proper recovery, treatment, or disposal.

Performance standards for ampules

Ampules removed from thermostats and other MCE can also be managed as UW. Use a containment system (e.g., plastic tub under the work area) to prevent spills during removal. Store and transport ampules in closed containers and in a manner that avoids breakage.

Leaks

Place leaking ampules or other MCE in an air-tight container.

Mercury in open housing

MCE with mercury in an open housing (e.g., barometers) can be managed as UW following appropriate precautions. The open housing can be removed, sealed airtight and managed the same as ampules.

If not removed, the housing should be sealed prior to transport and the whole device placed in a closed container.

Large Quantity Handlers of Universal Waste (LQHUW)

When a handler exceeds 11,000 pounds (or 2,200 pounds for lamps), they become an LQHUW and are subject to extra requirements, including:

- Notification to Ecology of LQHUW status, and which specific types of UW they manage.
- Tracking type and quantity of universal wastes received and shipped.
- Obtaining a RCRA Site Identification Number.

Transporting UW mercury-containing equipment

You may self-transport UW mercury-containing equipment, complying with applicable U.S. Department of Transportation regulations. Refer to Ecology publication number 98-407 *The Universal Waste Rule* for details.

A dangerous waste generator has the choice of managing MCE as UW or under the more stringent dangerous waste requirements. In most cases UW management is easier and a preferable alternative to dangerous waste management. Note that businesses who generate and manage both dangerous wastes and UWs are considered dangerous waste generators and UW handlers. Regardless if you are a generator or a handler, you are liable for ensuring your waste is managed properly once it leaves your site.

Where do I send them?

Universal wastes may be sent to either another handler (acting as a collection point) or to a destination facility. Another handler could include any business that is already managing UW, government-sponsored collections, or hazardous waste management firms.

Businesses that recycle or dispose of UW are called destination facilities. Ultimately, all UW must go to a destination facility. They are subject to dangerous waste regulations for recyclers and hazardous waste disposal facilities. A facility that only accumulates UW would not be a destination facility.

The major thermostat manufacturers set up the Thermostat Recycling Corporation (TRC) to provide recycling of thermostats at participating thermostat wholesale stores. Contractors are encouraged to return old thermostats to the store. Some stores will accept used thermostats from homeowners and other types of businesses. Participating stores can be located at http://www.thermostat-recycle.org.

How do I manage household MCE?

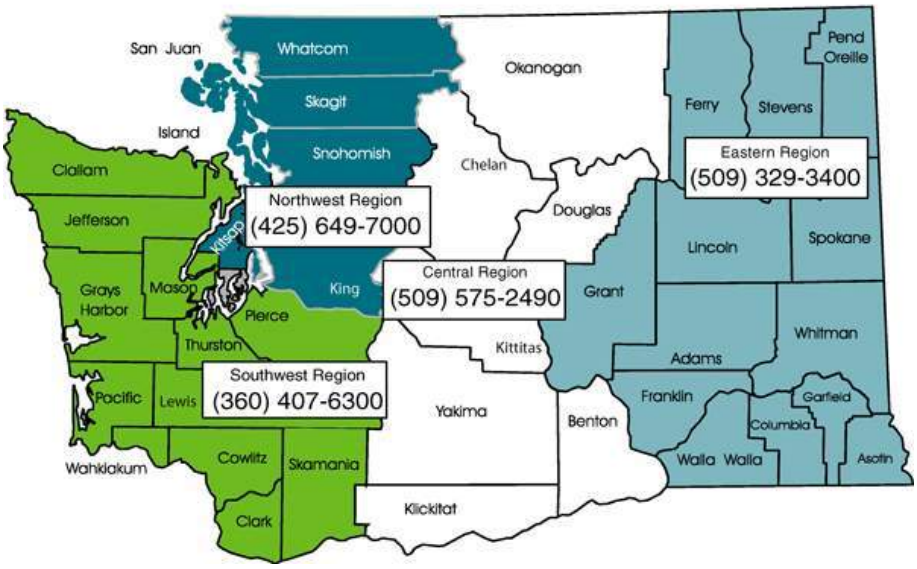
Homeowners are not required to manage their thermostats and MCE as UW, but are strongly encouraged to take them to a local household hazardous waste collection facility if available.

Why is MCE hazardous?

Mercury-containing devices can contain high levels of mercury that makes them a dangerous waste when discarded. Thermostats and thermometers are one of the largest sources of mercury in landfills. When thrown into the garbage, the ampule or glass can break, spilling the mercury. Some MCE can break while in use, spreading mercury droplets and contaminating the area. Because mercury is very toxic to humans and wildlife, it is important to prevent releases to the environment. To avoid future liability, replace mercury-containing devices with non-mercury alternatives.

Department of Ecology Regions

http://www.ecy.wa.gov/programs/hwtr



The Universal Waste Rule for Lamps
WAC 173-303-573(5)

Any business that generates dangerous waste must follow the dangerous waste rules, Chapter 173-303 WAC. In Washington State, the Universal Waste Rule allows less burdensome management of the following wastes:

- Batteries *(#98-407a)*
- Mercury-containing equipment *(#98-407b)*
- Lamps *(#98-407c)*

Businesses have the choice of managing these wastes as universal waste (UW) or dangerous waste. UW requirements for storage, transportation, and collection are less stringent.

This publication focuses on the UW requirements for lamps. Publication number 98-407, *The Universal Waste Rule* provides more details on these requirements and the advantages of UW management.

What types of lamps are considered Universal Waste?

The types of lamps that may be Universal Waste include:

- Fluorescent
- High Intensity Discharge (HID) (e.g., mercury vapor, metal halide, high pressure sodium)
- Compact fluorescent
- Neon[1]
- Any other lamps that are dangerous waste

How can I tell if my lamps are dangerous waste?

The process of determining if a waste is hazardous is called designation. Through EPA test procedures, lamps have been shown to designate as dangerous waste because of their mercury and/or lead content. A generator has three choices when determining if their spent lamps are a dangerous waste:

1. Assume that their lamps are a dangerous waste;
2. Use manufacturer's information, MSDS and other available information to designate by knowledge;
3. Designate by sampling and testing.

[1] "Neon" lamp manufacturers sometimes use gases other than neon, and lamps have been manufactured that contained up to 600 milligrams of mercury per tube.

Certain "green tip" lamps pass the EPA test and are not dangerous waste. Ask your lamp manufacturer or supplier for product testing information that shows these particular lamps are not a dangerous waste.

Some local governments may have landfill bans on disposal of mercury-containing lamps or other mercury-containing items. Check with your local health department, solid waste agency, or landfill for specific requirements, as well as recycling or disposal options.

What are the requirements for Universal Waste management of lamps?

Manage Universal Waste lamps the same as the other Universal Wastes, except for a few specific handling requirements. Because glass bulbs are easily broken, Universal Waste rules require specific handling procedures. Universal waste management requirements for lamps include:

Accumulation start date:

Both used and unused lamps become waste on the date the handler decides to discard them.

Accumulation and dating of Universal Waste lamps:

You can only accumulate lamps for one year from the date they are generated. To document this, the collection container or individual UW lamp is typically marked with the first date of accumulation. An extension to the one-year accumulation limit is allowed if the facility needs more time to collect enough items to facilitate proper recovery, treatment, or disposal.

Labeling and Marking:

Clearly label or mark individual lamps or containers with one of the following phrases:

- *Universal Waste – Lamps*
- *Waste Lamps*
- *Used Lamps*

Packaging:

Contain lamps in structurally sound containers such as cardboard boxes or fiber drums. In addition, keep containers closed when not adding lamps.

Clean up procedures:

Immediately clean up broken lamps and store debris in a closed container.

Large Quantity Handlers[2] of Universal Waste (LQHUW)

When a handler exceeds 11,000 pounds (or 2,200 pounds for lamps), they become an LQHUW and are subject to extra requirements, including:

- Notification to Ecology of LQHUW status, and which specific types of UW they manage.
- Tracking type and quantity of universal wastes received and shipped.
- Obtaining a RCRA Site Identification Number.

[2] Handlers are either the original generators of the UW or businesses that receive and consolidate UW from other handlers before shipping to another handler or to a destination facility.

Lamp crushing prohibited:
Lamps cannot be crushed under Universal Waste regulations. Lamp crushing is allowed as a dangerous waste treatment-by-generator activity, but not as a Universal Waste option.

Transporting Universal Waste lamps:
You may self-transport UW lamps, complying with applicable U.S. Department of Transportation regulations. Refer to Ecology publication number 98-407 "The Universal Waste Rule" for details.

Does the rule apply to me?

The following types of businesses may generate dangerous waste lamps and can take advantage of the Universal Waste regulations:

- Regulated generators[3] of dangerous waste (Medium Quantity and Large Quantity Generators)
- Businesses that generate or accumulate dangerous waste lamps in regulated quantities (this category may include commercial building/property owners that maintain the lighting for tenants)
- Businesses that provide collection and management services (e.g., lighting contractors)

A dangerous waste generator has the choice of managing lamps as UW or under the more stringent dangerous waste requirements. In most cases UW management is much easier and the preferable alternative to dangerous waste management. Note that businesses that generate and manage dangerous wastes and UWs are considered both a dangerous waste generator and a UW handler. Regardless if you are a generator or a handler, you are liable for ensuring your waste is properly managed once it leaves your site.

Where do I send them?

Universal wastes may be sent to either another handler (acting as a collection point) or to a destination facility. Another handler could include any business that is already managing UW, government-sponsored collections, or hazardous waste management firms. Businesses that recycle or dispose of UW are called destination facilities. Ultimately, all UW must go to a destination facility. They are subject to dangerous waste regulations for recyclers and hazardous waste disposal facilities. A facility that only accumulates UW would not be a destination facility.

Why do we care about lamps?

Nationally, about 680 million lamps are disposed of annually, most to solid waste disposal facilities, including landfills and solid waste incinerators. Fluorescent lamps contain a small

[3] Regulated generators of dangerous waste are those that generate over 220 pounds of dangerous waste per month or batch (or 2.2 pounds of extremely hazardous waste), or accumulate greater than 2,200 pounds of dangerous waste (or 2.2 pounds of extremely hazardous waste) at any time. As a point of reference, 4-four-foot long, linear fluorescent tubes weigh approximately 2.2 pounds. It would take about 400 of those tubes to equal 220 pounds and approximately 4,000 tubes to equal 2,200 pounds.

amount of mercury which is released when the lamp is broken. During waste handling and disposal, many lamps break, releasing mercury vapor and potentially exposing waste handlers to inhalation of those vapors. Waste incineration (not common in Washington State) of mercury-containing lamps also releases the mercury into the atmosphere. Mercury in the atmosphere is ultimately deposited back to the earth, rivers and lakes. From that point, mercury is then available to enter the food chain and eventually accumulates in fish.

The mercury content in newer fluorescent tubes ranges from 3.5 milligrams to 8 milligrams or more. Some older fluorescent tubes (pre-1999) contain up to 50 milligrams of mercury. HID lamps may contain up to 250 milligrams, depending on the lamp wattage.

Some lamps contain lead in the glass and lead solder in the base. Lead is a toxic metal that may leach from solid waste landfills into the ground water. Manufacturers are eliminating the lead by using non-leaded glass and solders in new lamps.

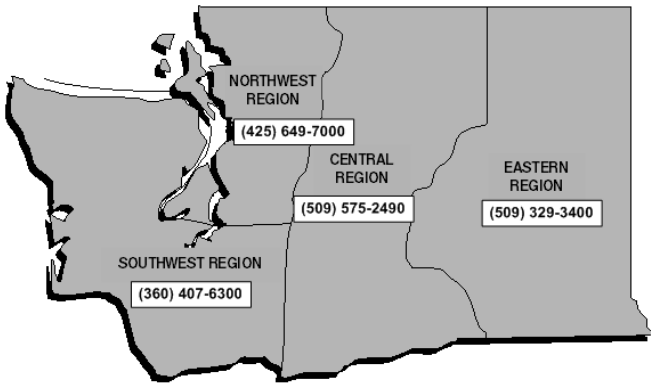
Although fluorescent and HID lamps contain toxic mercury and should be recycled, people are encouraged to continue using them because they use much less electricity and last much longer than other types of lighting. For this reason, fluorescents are a better long-term choice for the environment.

How do I manage lamps at home?

Homeowners are not required to manage their lamps as Universal Waste. They are strongly encouraged to take them to a local household hazardous waste collection facility or other appropriate recycling alternative, if available.

For More Information

Questions on this topic may be directed to your nearest regional office Dangerous Waste Specialist.



If you need this information in an alternate format, please call the Hazardous Waste and Toxics Reduction Program at 360-407-6700. If you are a person with a speech or hearing impairment, call 711, or 800-833-6388 for TTY.

EXHIBIT C

June 8th, 2023

City of Renton
1055 South Grady Way
Renton, WA 98057

Limited Lead-based Paint Testing

Renton History Museum Lead Inspection
235 Mil Ave South
Renton, WA 98057

PacRim Project # 17676

On May 23rd, 2023, Todd Carter, a State of Washington Department of Commerce certified Lead Inspector for Pacific Rim Environmental, Inc. (PacRim), performed limited lead-based paint testing of subject components associated with the fire-damaged exterior of the Museum in Renton, Washington, using a SciApps XRF device.

Field inspection, data collection, and report generation were performed according to the following Scope of Work:

1. Limited XRF testing of suspect lead-based paints (LBP) using a SciApps X550 portable XRF device.
2. Written descriptions of testing combinations and painted component locations
3. Prepare final written report including: Sample descriptions, locations, analytical results, and recommendations (if applicable).

This inspection was conducted following the U.S. Department of Housing and Urban Development (HUD) Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing with the 1997 revisions and all State and Local regulations except that a different visible color shall, by itself, result in a separate testing combination for a room equivalent. The EPA standard for lead-based paint of 1.0 mg/cm^2 was followed. All requirements for the NITON XRF usage contained in the Performance Characteristics Sheet for the specific XRF were followed.

Limited Lead-Based Paint Screening

A limited investigation for lead-based paint on selected painted exterior components was conducted at the subject project. Testing was performed using a SciApps X-Ray Fluorescence Spectrometer (XRF) model X550 serial number 01183. Paints found to contain lead in a concentration equal to or greater than the Federal threshold of 1.0 mg/cm^2 of surface as measured by an XRF are considered lead-based paints by EPA / HUD guidelines.

Pacific Rim Environmental, Inc.
6510 Southcenter Blvd, Ste. #40
Seattle, WA 98188
(206) 244-8965
www.pacrimenv.com

The inspection and testing performed on the exterior painted surfaces of the subject property ***did identify*** lead-based paint at or above the EPA/HUD standard of 1.0 mg/m^2 on the following components.

Test #	Sample ID	Substrate	Component	Side	Color	Pb mg/cm^2
13	13	Wood (Trim)	Door	C	White	2.26

Lead-containing paint was identified greater than 0.0 mg/cm^2 and less than 1.0 mg/cm^2 on some of the tested components.

The XRF data sheets and Characteristic Sheets are attached for your review.

It is important to keep in mind that although the EPA/HUD standard uses a criterion of 5,000 parts per million dry weight or 1.00 milligrams per square centimeter (1.00 mg/cm^2) for lead-based paint, there still may be lead present in those results reported as negative. In the event that lead is present, Federal OSHA and Washington State Department of Labor & Industries regulations will still apply, since neither agency has established a concentration of lead in paint below which the lead in construction standards do not apply. Workers wearing respiratory protection and who have received proper training in the handling of lead contaminated materials must be used for any construction activities (including manual scraping, manual/power sanding, heat gun applications, general cleanup, and demolition) that affect a paint film containing lead.

If you have any questions regarding this project, please so not hesitate to contact our office at 206-244-8965.

Respectfully,

Lindsey Lewis
Project Administration
Pacific Rim Environmental, Inc.

Pacific Rim Environmental, Inc.
6510 Southcenter Blvd, Ste. #40
Seattle, WA 98188
(206) 244-8965
www.pacrimenv.com

LEAD-BASED PAINT (XRF) DATA SHEET

Pacific Rim Environmental Inc.
6510 Southcenter Blvd. Suite 40
Seattle, WA 98188
(206)244-8965 www.PacRimEnv.com

Lead-Based Paint (XRF) Data Sheet

Client:	**City of Renton**	XRF Serial #:	**01183**
Project:	**Renton History Museum**	Inspection Date:	**5/23/2023**
Project Address:	**235 Mill Avenue South**	Inspection By:	**Todd Carter**
Reviewed by:	**Lindsey Lewis**	Pacrim Job#	**17676**

Test #	Sample ID	Substrate	Component	Side	Color	Pb mg/cm^2
1	4	N/A	Calibration	N/A	N/A	1.15
2	4	N/A	Calibration	N/A	N/A	1.15
3	4	N/A	Calibration	N/A	N/A	1.2
4	4	N/A	Calibration	N/A	N/A	1.17
5	5	Concrete	Wall	A	White	0.28
6	6	Metal	Door	A	N/A	ND
7	7	Concrete	Wall	B	White	0.21
8	8	Concrete	Wall	B	White	0.2
9	9	Metal	Window	B	Black	ND
10	10	Concrete	Wall	B	White	ND
11	11	Concrete	Wall	C	White	0.2
12	12	Metal	Door	C	White	0.49
13	**13**	**Wood (Trim)**	**Door**	**C**	**White**	**2.26**
14	14	Concrete	Wall	D	White	0.39
15	15	N/A	Calibration	N/A	N/A	1.19
16	16	N/A	Calibration	N/A	N/A	1.29
17	17	N/A	Calibration	N/A	N/A	1.3

** HUD standard is 1.0 mg/cm^2 WISHA standard is any amount of lead is considered lead containing material*

SCIAPPS XRF PERFORMANCE CHARACTERISTICS

Performance Characteristic Sheet

EFFECTIVE DATE: **February 1, 2022**

MANUFACTURER AND MODEL:

Make: ***SciAps***
Models: ***Model X-550***
X-Ray Source: ***Rhodium (Rh) or Gold (Au) Anode***

FIELD OPERATION GUIDANCE

ACTION LEVEL SETTING IN THE INSTRUMENT: 1.0 mg/cm²

NOTE: This PCS is not applicable at other Action Level settings; the Action Level setting of the instrument must be 1.0 mg/cm² to use this PCS.

OPERATING PARAMETERS:

Timed mode: fixed 10-second reading.

Quick mode: variable-time reading (approximately 2-6 seconds).

XRF CALIBRATION CHECK LIMITS:

0.8 to 1.2 mg/cm² (inclusive) on NIST SRM 2579 (1.02 mg/cm²)/NIST SRM 2573, or equivalent

SUBSTRATE CORRECTION:

Not applicable

INCONCLUSIVE RANGE OR THRESHOLD:

Rh Anode (Timed or Quick) READING DESCRIPTION	**SUBSTRATE**	**THRESHOLD (mg/cm²)**
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	0.5 0.5 0.5 0.5 0.5 0.5
Au Anode (Timed or Quick) READING DESCRIPTION	**SUBSTRATE**	**INCONCLUSIVE RANGE (mg/cm²)**
Results not corrected for substrate bias on any substrate	Brick Concrete Drywall Metal Plaster Wood	(0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6) (0.4-0.6)

BACKGROUND INFORMATION

EVALUATION DATA SOURCE AND DATE:

This sheet is supplemental information to be used in conjunction with Chapter 7 of the HUD *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*, 2012 Edition ("HUD Guidelines"). Performance parameters shown on this sheet are calculated using test results on building components in the HUD archive. Testing was conducted on 146 test samples in February 2022, with two separate instruments of each Anode type, operated in both Timed and Quick modes.

OPERATING PARAMETERS

Performance parameters shown in this sheet are applicable only when properly operating the instrument using the manufacturer's instructions and procedures described in Chapter 7 of the HUD Guidelines.

XRF CALIBRATION CHECK:

The calibration of the XRF instrument should be checked using the paint film nearest 1.0 mg/cm² in the NIST Standard Reference Material (SRM) used (e.g., for NIST SRM 2579, use the 1.02 mg/cm² film; for NIST SRM 2579a, use film 2573 (1.04 mg/cm²).

If the average (rounded to 1 decimal place) of three readings is outside the acceptable calibration check range, follow the manufacturer's instructions to bring the instrument into control before XRF testing proceeds.

EVALUATING THE QUALITY OF XRF TESTING:

Randomly select ten testing combinations for retesting from each house or from two randomly selected units in multifamily housing.

Conduct XRF re-testing at the ten testing combinations selected for retesting.

Determine if the XRF testing in the units or house passed or failed the test by applying the steps below. Compute the Retest Tolerance Limit by the following steps:

Determine XRF results for the original and retest XRF readings. In single-family and multi-family housing, a result is defined as a single reading. Therefore, there will be ten original and ten retest XRF results for each house or for the two selected units.

Calculate the average of the original XRF result and the retest XRF result for each testing combination.

Square the average for each testing combination.

Add the ten squared averages together. Call this quantity C.

Multiply the number C by 0.0072. Call this quantity D.

Add the number 0.032 to D. Call this quantity E.

Take the square root of E. Call this quantity F.

Multiply F by 1.645. The result is the Retest Tolerance Limit.

Compute the average of all ten original XRF readings.

Compute the average of all ten re-test XRF readings.

Find the absolute difference of the two averages.

If the difference is less than the Retest Tolerance Limit, the inspection has passed the retest. If the difference of the overall averages equals or exceeds the Retest Tolerance Limit, this

procedure should be repeated with ten new testing combinations. If the difference of the overall averages is equal to or greater than the Retest Tolerance Limit a second time, then the inspection should be considered deficient.

Use of this procedure is estimated to produce a spurious result approximately 1% of the time. That is, results of this procedure will call for further examination when no examination is warranted in approximately 1 out of 100 dwelling units tested.

TESTING TIMES:

The reading time in Archive tests was 10 seconds in Timed mode and from 2-6 seconds in Quick mode, for both the Rh Anode and Au Anode.

CLASSIFICATION OF RESULTS:

XRF results for the Rh Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.5 mg/cm^2 and ***negative*** if they are ***less than*** 0.5 mg/cm^2.

XRF results for the Au Anode in Timed or Quick mode are classified as **positive** if they are **greater than or equal** to 0.6 mg/cm^2, ***negative*** if they are ***less than or equal*** to 0.4 mg/cm^2 and ***inconclusive*** if they are ***greater*** than 0.4 mg/cm^2 **AND** ***less than*** 0.6 mg/cm^2.

DOCUMENTATION:

A report titled *Methodology for XRF Performance Characteristic Sheets* (EPA 747-R-95-008) provides an explanation of the statistical methodology used to develop Performance Characteristic Sheets at the Federal standard (Action Level) of 1.0 mg/cm^2 and provides empirical results from using the recommended inconclusive ranges or thresholds for specific XRF instruments. The report may be downloaded at http://www2.epa.gov/lead/methodology-xrf-performance-characteristic-sheets-epa-747-r-95-008-september-1997. The methodology was subsequently generalized by QuanTech for application to other Action Levels.

PERSONNEL / COMPANY CERTIFICATION

STATE OF WASHINGTON

Department of Commerce

Lead-Based Paint Abatement Program

Todd P Carter

Has fulfilled the certification requirements of WAC 365-230 and has been certified to conduct lead-based paint activities as a

Risk Assessor

Certification #	Issuance Date	Expiration Date
0340	04/15/2021	04/10/2024

United States Department of Commerce
National Institute of Standards and Technology

Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101631-0

Pacific Rim Environmental, Inc.

Tukwila, WA

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2023-04-01 through 2024-03-31

Effective Dates

For the National Voluntary Laboratory Accreditation Program

National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

Pacific Rim Environmental, Inc.
6510 Southcenter Boulevard
Suite #40
Tukwila, WA 98188
Mr. William F. Golloway
Phone: 206-244-8965 Fax: 206-244-9096
Email: fgolloway@pacrimenv.com
http://www.pacrimenv.com

ASBESTOS FIBER ANALYSIS **NVLAP LAB CODE 101631-0**

Bulk Asbestos Analysis

Code	***Description***
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

For the National Voluntary Laboratory Accreditation Program

EXHIBIT D

RENTON HISTORICAL MUSEUM
Renton, Washington
CAP Architectural Assessment
January 10, 2008

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

EXECUTIVE SUMMARY

The Renton History Museum (RHM) is located at 235 Mill Street, Renton, WA and is approximately twenty-five miles south of Seattle. The museum is located in the old Fire Station No. 1, built by the WPA from 1939 – 1942. (Inferences to dates as they depict the evolution of the building and the site are made by the culmination of facts as known at this time. The history of the building is not the intent of this report. See the 1978 National Register nomination, *Renton Fire Station No. 1*, for a more thorough history).

The Renton History Museum (RHM) began in 1982 with the leasing of the old Fire Station to the Renton Historical Society. The City provides 50% of the museum's budget for operational expenses, salaries, and also provides staff, via Community Services, to maintain the building and site.

The RHM is open year-round with hours of 10 A.M. – 4 P.M. Monday - Saturday. Approximately 4,000 visitors enjoy the facility and grounds each year. The admission price is $3.00.

This building is an artifact! Just as the collection housed in the museum contains artifacts that must be recorded, preserved, and displayed, Fire Station No. 1 is an artifact worth preserving. Structurally this is a sound building and serves well as a museum for greater Renton.

The museum and historical society has growing pains. It is time to grow, expand, and take on a new expression in the community. In order to do this, a master plan needs to be developed and funding sources secured. This may take some time, 10-15 years. Until such time when another, larger facility can be located and renovated or a new building constructed, the present building needs to be maintained and utilized to its fullest.

The biggest concern is the lack of storage and workspace. It is paramount that an environmentally conditioned, off-site collections storage space be secured. The entire collection could be moved there (except the artifacts that are on exhibit) and the current collections room space in the museum could be utilized as an on-site workspace. This, unfortunately, would require shuttling artifacts back and forth.

I have attempted to supply solutions for some of the problems I observed with the building – things that the city maintenance staff could undertake. A few things, like the solution to the problem at all the windows, is a major undertaking for a contractor under the guidance of an historic architect.

OBSERVATIONS *and* COMMENTS by the STAFF &BOARD MEMBERS OF THE MUSEUM

Interview with author on October 29, 2007

What makes the RHM unique?
It is the only museum in Renton and the Greater Renton area.

Are there other museums in the area?
No museum or art center, but some arts groups.

Are there other small county museums in the region?
White River Valley Museum in Auburn – 20 miles away, focus on local history.
Black Diamond Museum – 20 miles away, focus on its coal mining company town.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

King County Historical Society – local, countywide history.

Is there a Master Plan for the facility/museum?
A Strategic Plan for the operations has been developed – focus on goals for 5 yrs.
A Master Plan for the facility for the next 15-20 years is a project for 2008.

Is there a focus on the exhibits that is meaningful to the community and visitors that brings them into the museum?
Native Americans, industries, coal mining, people from WWI & WWII, Boeing (flight simulator), Renton social life, daily life c. 1910-30, subject specific display cases, "Century-to-Century" exhibit (1900-2000), children's section.

Is there a changing gallery space?
There is one case for new acquisitions. Potentially the children's section could be a changing exhibit space area.

Do you accept any donations and do you have a set criteria for artifact acquisition?
No collecting plan, but a policy.

Are you overloaded with donations?
RHM does reject donations. Focus on collecting from greater Renton area, items associated with Renton history only.

What additional space do you see necessary?
1. Storage space – environmentally controlled.
2. Work space – where artifacts can remain for prep, cleaning, research, etc.

Funding sources?
50% from City of Renton for operating expenses and some salaries.
50 % from Renton Historical Society (via an endowment) for some salaries.
Also funds from memberships, gift shop sales, and donations.

How do you advertise?
Website, newsletter, local events, local media, Renton Magazine, Liz speaks to groups outside the museum venue.

Who comes to visit?
Families, senior citizens, tourists, Sister City visitors (Japan & Mexico), school groups.

Do you have Community Partners?
Chamber of Commerce

Wish list items!
Work Space & Collections space

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

OBSERVATIONS and RECOMMENDATIONS

The site visit is recorded using observations. *OBSERVATIONS = O*
Some, not all, observations are followed by recommendations for future repairs, replacement, or considerations for improvements. *RECOMMENDATIONS = R*

SITE
Acreage: less than one acre.

Landscaping, Vegetation, & Walkways
O Lawn and vegetation at the park areas to the north and south are nicely maintained by the City of Renton.

Drainage:
O Some mossy build-up on at the sidewalks at the northwest (rear entry). This area probably receives a minimum of sunlight and does not dry out.
R Monitor, if advanced mossy build-up occurs, apply a treatment of ammonium sulfamate (available at garden supply stores) to concrete areas.

Fencing
O Fencing maintained between the park area north of the museum and the neighboring fire station and along the rear parking lot.

Security
O Some exterior lighting on the building, no site lighting.

Parking
O Four parking spaces at the front off of Mill Street and eight spaces at the rear off the alley. A public parking lot is diagonally across the alley to the northwest via the next street.

Utilities
O Utilities are located in the alley, these services are provided by the City of Renton or other utility companies.

ADA
O The site is flat and accessible via paved sidewalks from other parking areas. The building entries are located at grade and are accessible.

Buildings
O The site accommodates only Fire Station No. 1. Due to its odd shape, location and access, the site is too small to accommodate other buildings.

Outdoor Artifacts
O A logging disconnect on railroad tracks is displayed at the north park area.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

RENTON HISTORY MUSEUM - Fire Station No. 1

The former Fire Station No. 1 has housed the Renton History Museum since 1982. Its history and architecture have been recorded in a 1978 National Register nomination. The building was renovated in 1989 to enhance its use as a public museum facility. The building is of concrete construction with a clear-span truss roof structure over the Large Exhibit Hall (former truck bays).

Fire Station No. 1, constructed 1939 - 1942. Photo by author.

EXTERIOR

Foundation

O The foundation is poured concrete and appears to be in great condition. A small basement is located north of the former hose tower. The basement houses the HVAC system and a small work/storage area. (This was originally the furnace and coal room – the hatch to the coal chute is still intact). An exit leads to an exterior staircase that takes one to grade level. A drain serves the entry at the bottom of the stairs.

R Monitor this drain and keep it cleaned out and free of debris.

Exterior Walls

O The concrete walls, painted white, are in great shape. Only two cracks were observed: one at the interior that is reported to have been caused by a recent earthquake (2001). This crack has been filled with epoxy.
The second crack is at the interior corner of the hose tower and west wall. This second crack is most likely caused by differential settlement of the two building masses – the tall, narrow tower and the lower building. The crack may have been widened during the recent earthquake.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

R The exterior crack at the tower needs to be fixed. Infill with an epoxy product as at the interior crack. This crack should be monitored regularly.

Crack at wall, 2007. Hose tower at left.
Photo by author.

O Efflorescence was observed at the upper walls. Efflorescence is the movement of salts within the concrete to the surface due to a wicking effect caused by moisture. What is seen is a salt deposit on the surface of the concrete. If the surface is painted, the salt deposits will cause the paint layers to blister and crack resulting in an unsightly wall surface.

R First the paint layers need to be scraped away. Then try to locate the source of moisture intrusion. This will require looking at possible roof leaks, leaks around the door/window, or cracks in the concrete walls. Roof leaks must be remedied, cracks at door/window openings can be caulked, cracks at walls can be filled with epoxy, and the efflorescence can be removed by dry brushing. If there are particularly heavy deposits, then wash/brush with a dilute solution of muriatic acid (1:12) and rinse with water. Repaint.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Efflorescence at west wall near overhead door causing paint to blister & crack.
Photo by author.

Roof

O The built-up roofing appears to be have been installed in the past 5-10 years and is in good condition. Some leaves and pine needles were building up near the roof drains. The lower roof at the north had a large puddle with leaves and needles.

R Keep the drains clear of debris. Regular monitoring of the roofs is necessary in the wet, rainy climate.

Doors: There are 3 passage doors and one overhead door.

O Each of the passage doors is allowing air infiltration to some degree.

R Reinstall weather stripping at all doors. The rear door needs a threshold and/or door bottom with sweep to keep cold air and moisture out.

First floor level Windows

O The windows at the first floor level were replaced with insulated metal-framed windows (c. 1989). The new windows were smaller than the original openings and the infill material around the windows has deteriorated probably due to heat/cold cycles, moisture, and the new materials (plaster or cement parging) not bonding with the old (1940) concrete. New cement parging is not going to bond with concrete that is decades old. The deterioration varies around the building depending upon the heat/cold cycles, the amount of direct sunlight, and moisture.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Window at workroom, typical, showing spalling finish at window surround. Photo by author.

R To totally remedy this problem, all the material around the windows, inside and out, needs to be removed. It is inevitable that this situation will reoccur given the climate of the area unless a detail that allows for expansion and contraction is applied to each window surround and sill. This finish detail should include a minor expansion joint that can be nicely defined to fit the style of the Fire Station. This requires more research and is not within the scope of this report. This is a project for a contractor to undertake.

Upper Windows.

O As observed at the wall, some leaking at the upper windows has occurred in the past. From the exterior it appears to have been remedied with a serious application of caulking compound. This is not a permanent solution. The caulk will eventually break down due to expansion/contraction and a route for water to infiltrate will once again occur.

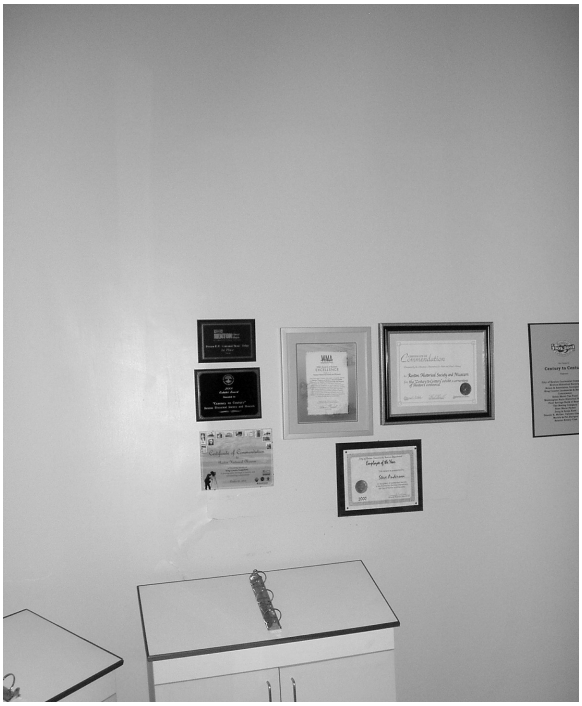
R The City maintenance crew should inspect the windows for possible new leaks annually. Then on a regular basis (a 5-year cycle) remove all the existing caulk and replace with new caulk to prevent any further leaking.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Blocked Windows at northeast corner.

O The windows in the Small Exhibit Room have been blocked for exhibition purposes. The "ghosts" of the windows at the east wall are evident as the perimeter is cracking through the wall finish. (The windows at the north wall in this room are blocked with a wood-framed wall and could not be observed). At the exterior it can be seen that the "black-out" material and filler material has deteriorated and failed. The heat/cold cycles have caused condensation and the sheetrock is failing at the interior.

R This wall, if to be retained as an exhibit wall, should be rebuilt. An airspace should be incorporated between the concrete wall and the exhibit wall. Remove existing sheetrock, install a black-out shade at each window – allowing some air circulation, then build a partition wall – a 2 x 4 frame wall - inside the concrete wall. This will allow air to circulate and retain the appearance of a window at the exterior while blocking out the sunlight.



The "ghost" of the window corner is visible through the sheetrock – directly above table. Photo by author.

ADA

O Entrances to the building are all at grade for handicap accessibility.

O The public restroom is 90% handicap accessible. The only thing lacking is the free space – 18 inches - at the latch side of the door. This is not possible to attain unless the entire doorway is to remodeled, however, this is not a big issue.

O The ADA ramp at the 1920s house exhibit is great, however it is only 4 feet in width - ADA requires 5 feet in width. It is a kicking/tripping hazard at the back door and would be even more so if wider. If moved to make the side (south)

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

door of the house accessible, then it will be a tripping hazard for the research room door. A conundrum indeed!

R Leave it where it is and attach a railing to make it more visible to those using the rear door. The railing could be made to be removable as necessary for moving artifacts, etc.

INTERIOR

Rooms: The museum is comprised of the following rooms – large exhibit hall, small exhibit room, research room, kitchen, basement mechanical room (work & storage space), hose tower, entry/gift shop, workroom, office, collections storage, employee restroom, public restroom, and large mechanical room.

Large Exhibit Hall

This large, high space – formerly the fire truck bays, three trucks wide and two trucks deep - allows the RHM to have both large displays and small, intimate exhibits. It is open to the roof structure and the mechanical ductwork threads through the trusses. There are florescent and track lights. The floor and walls are exposed concrete, except where exhibits are located, some sheet-rocked partitions exist.

O The 1920s house has some artifacts stored on the roof and porch roof.

R Move those artifacts off the roofs!

The Large Exhibit Hall displaying, artifacts large and small, is a flexible space. Photo by author.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Small Exhibit Room
This space, located in the northeast corner was formerly part of the firemen's quarters. The walls were furred out over the windows and finished in sheetrock. The floor has been carpeted. The ceiling is finished with acoustic tiles. Track lights illuminate the space.

Research Room
This space, located in the north center of the fire station was also formerly part of the firemen's quarters. The walls were furred out and finished in sheetrock, but these windows are exposed. The floor has been carpeted. The ceiling is finished with acoustic tiles. This room contains a sliding storage system for documents, flat files, and file cabinets. It is open to the public for research purposes. It also doubles as a meeting space. Fluorescent lights illuminate the space.

Kitchen
This room, located in the northwest corner of the building, is the original kitchen with cabinets and counters at three walls. The floor has been finished with linoleum tiles. Fluorescent lights illuminate the space.

Basement Mechanical Room/Intern's Work Room
Located 7 steps down from the main level, this space serves to house the furnace and hot water heater, a small work space and storage room (former coal cellar). The walls are of exposed concrete as is the floor. An exit to the exterior is located on the west wall.

Hose Tower
This two-story space was originally used to hang and dry hoses by the fire department. It is a nifty tower space, but unfortunately not very usable for museum purposes. It is also not very accessible.

Entry/Gift Shop
This space, located at the southeast corner of the fire station was also formerly part of the administrative offices of the fire station. The walls were furred out and finished in sheetrock with one exposed window. The floor has been carpeted. The ceiling is finished with acoustic tiles. It has displays and shelving for gift items. Fluorescent lights illuminate the space.

Work Room
This space, located at the southeast corner of the fire station was also formerly part of the administrative offices of the fire station. The walls were furred out and finished in sheetrock with two exposed windows. The floor has been carpeted. The ceiling is finished with acoustic tiles. It is utilized as a workroom with a copy machine, worktable, and shelving. Fluorescent lights illuminate the space.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Office
This space, located at the south center of the fire station was also formerly part of the administrative offices of the fire station. The walls were furred out and finished in sheetrock with two exposed windows. The floor has been carpeted. The ceiling is finished with acoustic tiles. It has cubicle dividers for office spaces. Fluorescent lights illuminate the space.

Collections Storage
This space, located at the southwest corner of the fire station was formerly the locker and shower room for the firemen. The walls were furred out and finished in sheetrock with no windows exposed. (There are windows on the south wall that are blocked in the same manner as others and suffer from the same moisture issues). The floor has been finished in tile and the ceiling is finished with acoustic tiles. It contains a sliding storage system for artifacts and is illuminated with fluorescent lights. It is clean and temperature controlled, though the temperature can vary as much as ten degrees in a 24-hour period.

Employee Restroom
The walls and ceiling are finished in sheetrock, the floor is tile. It has one toilet and one sink. The space above the ceiling is used for artifact storage from the adjacent collection storage room.

Public Restroom
The walls and ceiling are finished in sheetrock, the floor is tile. It has one toilet and one sink.

Mechanical Room
The walls and ceiling are finished in sheetrock, the floor is exposed concrete. Mechanical and electrical systems are accessed in this room.

Systems:
HVAC
Exhibit Room – west wall:

O The HVAC system is relatively new. The enormous air intake louver at the west wall near the janitor sink is VERY energy inefficient. When the system is not running, warm air is being sucked out of the building and the reverse is happening with the cooling system in the summer.
R The folks from the City Communities Services Dept. should look at this system. Perhaps there is a louver system that will automatically open and close with the functioning of the HVAC system.
O Not only does this louver allow the loss of warm and cool air, but also dust, insects, and moisture are coming into the building.
R A fine mesh screen needs to be installed over the existing louver or if a new louver system is installed make sure it has a fine mesh screen.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Collections Storage – exhaust duct over storage shelves exiting west wall:

O Coming from the adjacent mechanical room there is an exhaust duct located over the collection shelving. It has excessive amounts of caulk and tape around the joints - suggesting moisture leakage in the past. This is moisture from the HVAC system that must exit the building, but is collecting in the low part of the duct and leaking, potentially onto the collections!

R To protect the collections from further water damage, relocate the ductwork to the mechanical room and exit out the west wall at a new location. This will involve core drilling the concrete wall. It will also move the exhaust vent from beneath the roof scupper that could also be adding unwanted moisture to the system. During the site visit there appeared to be two avenues for rerouting the ductwork in the mechanical room. (Verify with Dennis).

Collections Storage – exhaust duct over storage shelves exiting west wall – a nasty item to have in the collection room. Photo by author.

O The grille/vent at the west wall of the Collections Room appears to be remaining from the period when this space was the locker room for the firemen. Air movement is bringing in dust, insects, and moisture.

R It would be wise to have the city maintenance crew inspect this. If it is not in use it can easily be blocked from the interior, while leaving the fixture at the exterior. Or remove the exterior fixture as well and neatly block the entire hole in the wall.

R If it is in use, provide a filter over/within the grille that can be monitored and regularly changed.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

Plumbing

O All plumbing appears to be functional and no known problems were occurring at the time of the site visit.

Electrical

O The staff and city seemed confident in the electrical and lighting system.

R If anything, when any rooms are remodeled, particularly the Small Exhibit Room and Research Room, incorporate more outlets.

Security

O The museum included the following systems: Low voltage alarms, smoke detectors, fire alarms, motions detectors, and audio – sound activated – alarm system. No exterior lighting or motion detectors are presently part of the security program.

O The research room had no locking door.

R Suggest the installation of a lock on the research room door.

Energy Conservation

O There is no known insulation in the walls or ceiling spaces. The windows are double pane. It would take a tremendous effort to insulate this building and is probably not cost effective.

R If an energy audit has never been conducted, it might be a good starting point if the museum intends to occupy the building and not move to another location. This should be a consideration for the Master Plan.

ADDITIONAL RECOMMENDATIONS for MUSEUM BUILDING

Preservation Maintenance Plan

From discussions with the museum staff, there are no historic districts in the City of Renton nor is there an Historic Preservation Commission to handle any preservation issues. It seems as though the City relies upon the Historical Society to alert them about any historic building issues. It appears, however, that the City highly regards it as "the special historic building" within its jurisdiction. A solution could be that the RHM request that the City provide funding for a Preservation Maintenance Plan. In this Preservation Maintenance Plan process engineers, as well as an historic architect will inspect all systems in the building - including structural, mechanical, and electrical. (This CAP Survey is a rather cursory assessment conducted over the course of two days and therefore captures the obvious issues. More in depth scrutiny of the building should be conducted within a Preservation Maintenance Plan process).

In the Preservation Maintenance Plan, engineers will look at operational records. It will outline all systems within the building and prioritize the items for the building, treatments for specific items of concern, and provide an annual maintenance list and a long-term list (for example -things to be done every five years). This way the maintenance budget can be figured on a yearly basis and the museum and City has a plan in hand from which to work.

Arrow Rock Architects
600 N. Latah
Boise, Idaho 83706
208-344-3722

The Preservation Maintenance Plan should reflect the building's continuing importance, whether the museum stays in it or moves in 10-15 years. RHM should request that the City pay for a plan as they will be using it beyond the museum's occupancy of the building.

RENTON HISTORY MUSEUM – Off-Site Storage Facility

Located about 1 ½ blocks away, this storage space is located in the basement of a building and is under the auspices of the City of Renton facilities department.

O This facility suffers from moisture problems, rodent infestation, dust and air infiltration, and a really funky – gas – odor! It is also accessible by other outside entities that are not a part of the museum staff and these folks should not be allowed access.

R Find a more suitable storage location, which will unfortunately, be off-site and cost money to rent/buy and maintain. Make sure it will accommodate the present collection and more- probably 3,000SF minimum! It needs to be environmentally controlled for the various aspects of the collection and secure.