ASBESTOS REMEDIATION

ATTACHMENT A

ASBESTOS, LEAD PAINT AND PCB CAULK SURVEY

ASBESTOS, LEAD PAINT, AND PCB CAULK SURVEY REPORT

Danforth Tower East – Boiler Room 140 West Avenue Rochester, New York

Prepared For:

Rochester Housing Authority 675 W. Main Street Rochester, New York

Prepared By:

Lu Engineers 280 East Broad Street, Suite 170 Rochester, New York 14604

February 2024



ASBESTOS, LEAD PAINT, AND PCB CAULK SURVEY REPORT

Danforth Tower East – Boiler Room 140 West Avenue Rochester, New York

TABLE OF CONTENTS

				Page
1.0	INTROI	DUCTION AND P	ROJECT OVERVIEW	1
	1.1	Record Review	⁷	1
2.0	SITE IN	SPECTIONS		1
	2.1	Asbestos		1
	2.2	Lead Paint		2
	2.3	PCB Caulk		2
3.0	ANALY	TICAL RESULTS		3
	3.1	Asbestos Resul	lts	3
	3.2	Lead Paint Res	ults	4
	3.3	PCB Caulk Resu	ults	4
4.0	ASBEST	TOS MATERIALS	AND APPROXIMATE QUANTITIES	4
5.0	LIMITA	TIONS OF THE I	NVESTIGATION	5
6.0	RECOM	MENDATIONS .		5
	6.1	Asbestos Conta	aining Materials	5
	6.2	Lead Paint	-	6
	6.3	PCB Caulk		6
<u>ATTA</u>	CHMENT	<u>ΓS</u>		
ATTA	CHMENT	ГА	Licenses and Certifications	
ATTA	CHMENT	ГВ	Sample Location Plans, Analytical Reports, and Chain of Cust Forms	ody
ATTA	CHMENT	ГС	Asbestos Location Plans and Asbestos Inspection Summary T	able
ATTA	CHMENT	ΓD	Site Photographs	

1.0 INTRODUCTION AND PROJECT OVERVIEW

Lu Engineers was retained by Rochester Housing Authority to provide an asbestos, lead paint, and PCB caulk survey of the building located at 140 West Avenue, in Rochester, New York. This survey was performed in anticipation of upcoming renovations to the building.

The asbestos, lead paint, and PCB caulk survey was conducted on January 3, 2024. The intent of this survey was to determine the presence and quantity of asbestos containing materials, lead-based paint, and PCB containing caulk. The asbestos survey was conducted in accordance with New York State Department of Labor (NYSDOL) Industrial Code Rule (ICR) 56 by certified inspectors from Lu Engineers. A copy of Lu Engineers' license and inspectors' certifications can be found in Attachment A.

1.1 Records Review

Record drawings of the building or previous surveys were not available for review prior to conducting the asbestos survey.

2.0 SITE INSPECTION

2.1 Asbestos

One of the purposes of the visual inspection was to identify homogeneous areas of suspect asbestos containing materials that exist throughout the area of inspection, as defined in the scope of work. The Asbestos Hazard Emergency Response Act (AHERA) regulations define a homogeneous area as, "... an area of surfacing material, thermal insulation material, or miscellaneous material that is uniform in color and texture." Furthermore, homogeneous areas should consist of the same age and application.

The inspectors identified homogeneous areas that were present within the building. The suspect asbestos materials were given a homogeneous identification number based on color and texture of the material. A list of homogeneous area numbers of the materials encountered is included with the Asbestos Result Table in Section 3.1.

Occupational Safety and Health Administration (OSHA) and 40 CFR 763 Subpart E – Asbestos Hazard Emergency Response Act (AHERA) bulk sampling protocols were followed.

- Three (3) samples of a homogenous surfacing material in quantities of 1,000 Square Feet (SF) or less were collected.
- Five (5) samples of a homogenous surfacing material in quantities greater than 1,000 SF but less than 5,000 SF were collected.

- > Seven (7) samples of a homogenous surfacing material in quantities greater than 5,000 SF were collected.
- ➤ Three (3) samples of Thermal System Insulation (TSI) material were collected.
- > Two (2) samples of each miscellaneous material were collected.

The suspect asbestos containing materials were extracted using various hand tools, containerized and labeled with unique sample identification numbers. Samples were submitted to the laboratory using standard chain of custody protocols.

Paradigm Environmental Services was the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) approved laboratory used for analysis. A copy of Paradigm's credentials is located in Attachment A.

Friable samples were analyzed using NYS ELAP Method 198.1, Polarized Light Microscopy (PLM). Non-friable organically bound (NOB) samples were analyzed using NYS ELAP Method 198.6 (PLM) and, if found to be negative, NYS ELAP Method 198.4, Transmission Electron Microscopy (TEM). All Samples were analyzed via stop positive protocols meaning that once a positive sample of a series was found, the other samples were not analyzed.

Thirty-four (34) bulk samples were collected from the building as part of this project.

The sample identification number indicated on the Bulk Sample Location Plan corresponds to the homogeneous ID numbers which are also located on the laboratory analytical report and the chain of custody forms. The Bulk Sample Location Plan, laboratory analytical report and the chain of custody forms are included in Attachment B.

2.2 <u>Lead Paint</u>

Lu Engineers conducted a lead-based paint inspection for this project on January 3, 2024.

A total of three (3) bulk paint samples were collected from several painted surfaces. The sample locations are indicated on the Sample Location Plans included in Attachment B. The sample number indicated on the plans corresponds to the sample numbers on the laboratory analytical report and the chain of custody which are included in Attachment B.

The samples were submitted to Paradigm Environmental Services, Inc., an ELAP-certified laboratory. A copy of Paradigm's laboratory credentials is included in Attachment A. Results of Lu Engineer's visual assessment are included in Section 3.3.

2.3 PCB Caulk

Based on our visual assessment of the building, there were no suspect PCB containing caulks identified and therefore sampled.

3.0 ANALYTICAL RESULTS

3.1 <u>Asbestos Results</u>

As defined by the New York State Department of Labor (NYSDOL) 12 NYCRR 56, a sample is considered to be asbestos containing if it contains greater than 1% asbestos by weight based on laboratory analysis. The Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 requires specific work practices and prohibitions if asbestos in any quantity, i.e., trace <1%, is present in potentially impacted materials.

A list of Homogeneous Areas (HA) identified for the building area surveyed is included below. The **bold** and *italicized* HA description indicates that the material is positive, based on the sample results.

Homogeneous Area No. (HA)	Description	Condition	Friability	Asbestos Content
1	Silver Paint	Intact	NF	NAD
2	Blue Paint	Intact	NF	Trace Chrysotile <1.0%
3	White Boiler Rope	Intact	NF	NAD
4	Grey Mudded Fittings/Insulation	Intact	F	Chrysotile 1.9% - 15%
5	White Pipe Covering	Intact	F	Chrysotile 2.0% - 2.9%
6	Tan Fiberglass Pipe Covering	Intact	NF	NAD
7	Orange Gasket	Intact	NF	Chrysotile 57% - 67%
8	Tan Boiler Rope	Intact	NF	NAD
9	White Cover	Intact	F	Chrysotile 11% - 15%
10	Grey Breeching	Intact	F	Chrysotile 5.6% - 25% Amosite 6.0% - 7.0%
11	White Sealer	Intact	F	NAD
12	Tan Boiler Insulation	Intact	F	NAD
13	Refractory Cement, Inside of Boiler	-	-	Note 1
14	Valve Gasket	-	-	Note 1

 ${\sf NAD-No}$ Asbestos Detected

F – Friable; NF – Non-Friable

Note 1 – Client informed on-site inspectors of the presence of this material, but it could not be accessed at this time. Material is assumed to be asbestos-containing and can be sampled during construction.

3.2 <u>Lead Paint Results</u>

According to the United States Environmental Protection Agency (EPA), paint is considered lead-based if the concentration is equal to or greater than 0.5% by weight.

According to the Occupational Safety and Health Administration (OSHA), lead means metallic lead, all inorganic lead compounds, and organic soaps with any concentrations of lead. Therefore, all samples collected are considered lead containing per OSHA standards.

Lu Engineers collected a total of three (3) bulk lead paint samples from various locations of the building. The samples were submitted to Paradigm Environmental Services, Inc., an ELAP-certified laboratory. A list of the areas sampled for this survey is included below. The **bold** and *italicized* description indicates that the material is positive for lead per EPA standards, based on the sample results.

Sample No.	Description	Lead Conc. (% by Wt.)
LP-1	Silver Paint	0.276
LP-2	Blue Paint	0.100
LP-3	Grey Paint	0.0320

3.3 PCB Caulk Results

EPA defines PCB bulk waste, "as waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was > 50 ppm PCBs". Solid wastes containing 50 ppm by weight or greater are listed hazardous wastes in New York State (6 NYCRR Part 371.4(C)).

No suspect PCB caulks were identified or sampled at the time of this survey.

4.0 ASBESTOS MATERIALS AND APPROXIMATE QUANTITIES

Asbestos exists throughout the inspected areas. Based on the analytical results, the following table identifies the Homogeneous Areas that contain asbestos along with the material description and approximate quantity.

Homogeneous Area No. (HA)	Description	Approximate Quantity
4	Grey Mudded Fittings/Insulation	40 LF
5	White Pipe Covering	Note 1
7	Orange Gasket	4 SF
9	White Cover	745 SF

Homogeneous Area No. (HA)	Description	Approximate Quantity
10	Grey Breeching	Note 2
13	Refractory Cement	20 SF
14	Valve Gasket	10 SF

SF = Square Feet

5.0 LIMITATIONS OF THE INVESTIGATION

This report has been prepared for the exclusive use of the client. This report relies on information supplied by the building owner, employees, tenants and other sources of information. Lu Engineers has prepared this report in accordance with generally accepted practices within the industry.

This report identifies and assesses the location, quantity, and condition of materials that were accessible and visible at the time of sampling. The condition of the suspect materials is based on the actual inspection date. The quantities indicated in the report are based on the visual inspection and are only estimates of the material present. Additional quantities may exist above ceilings, behind walls or in areas of the building beyond the scope of the survey.

This survey is not intended to be an abatement design. Per NYCRR 56, an abatement design must be completed by a certified Project Designer.

This survey is intended to be a pre-renovation survey and was limited to building materials expected to be impacted by planned boiler replacement. Asbestos containing materials are expected to remain after the current scope of work is completed.

The building was an occupied, functioning building at the time of the survey.

6.0 RECOMMENDATIONS

6.1 <u>Asbestos Containing Materials</u>

Asbestos containing materials have been identified as part of this assessment as shown in Section 4.0. The locations of asbestos containing materials and a summary of quantities are included in Attachment C.

In accordance with 12 NYCRR 56, no renovation or demolition work shall be commenced by any owner or agent prior to completion of asbestos abatement performed by a licensed asbestos abatement contractor. NYSDOL regulations require that the asbestos containing material that will be disturbed by the renovation or demolition be removed prior to any disturbance of the material.

LF = Linear Feet

Note 1 – Quantity is included with Grey Mudded Fittings/Insulation (HA #4) because materials are part of a non-separable system.

Note 2 – Quantity is included with White Cover (HA #9) because materials are part of a non-separable system.

If suspect asbestos containing materials not identified in this asbestos survey report are discovered during the demolition and/or renovation process; it is required that the presence, location and quantity of newly discovered material, be conveyed within twenty-four (24) hours of discovery to the building owner or their representative. All activities must cease in the area where the presumed asbestos containing material or suspect miscellaneous ACM is found, until a licensed asbestos contractor appropriately assesses and manages the discovered materials.

6.2 <u>Lead Paint</u>

According to the United States Environmental Protection Agency (USEPA), paint is considered lead based if the concentration is equal to or greater than 0.5% by weight. The Occupational Safety and Health Administration (OSHA) Regulation in 29 CFR 1926.62 considers any amount of lead in paint to be of concern. The regulation states that the employer shall assure that no employee is exposed to lead concentrations greater than fifty micrograms per cubic meter (50 mg/m³) of air averaged over an eight hour period.

There was no lead paint identified as part of this survey.

6.3 PCB Caulk

Caulks containing 50 parts per million (ppm) by weight (on a dry weight basis for other than liquid wastes) or greater of PCBs may be listed as hazardous waste in accordance with New York State Department of Conservation regulations (6 NYCRR Part 371). PCB wastes are also regulated by EPA in the 40 CFR Part 761 regulations.

There were no PCB containing caulks identified as part of this survey.

ATTACHMENT A

License and Certifications



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK

WE ARE YOUR DOL



DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT, STATE OFFICE CAMPUS, BLDG. 12, ALBANY, NY 12226

ASBESTOS HANDLING LICENSE

Joseph C. Lu Engineering, P.C. 280 E. Broad Street, Suite 170, Rochester, NY, 14604

License Number: 29286

License Class: RESTRICTED
Date of Issue: 05/10/2023

Expiration Date: 05/31/2024
Duly Authorized Representative: Mitchell Smith

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

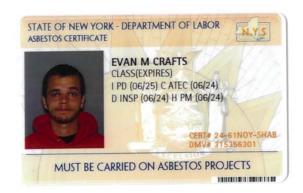
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Amy Phillips, Director
For the Commissioner of Labor

SH 432 (12/21)



280 East Broad, Suite 170 Rochester, New York 14604





01213 007119191 08

IF FOUND, RETURN TO: NYSDOL - L6C UNIT ROOM 161A BUILDING 12 STATE OFFICE CAMPUS ALBANY NY 12226

EVAN CRAFTS
I – Project Designer
C – Air Sampling Technician
D – Inspector
H – Project Monitor

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2024 Issued April 01, 2023

NY Lab Id No: 10958

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. STEVE DEVITO
PARADIGM ENVIRONMENTAL SERVICES INC
179 LAKE AVENUE
ROCHESTER, NY 14608

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material Item 198.1 of Manual

EPA 600/M4/82/020

Asbestos in Non-Friable Material-TEM Item 198.4 of Manual

Lead in Dust Wipes EPA 6010C
Lead in Paint EPA 6010C

Sample Preparation Methods

EPA 3050B



Serial No.: 67573

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/, by phone (518) 485-5570 or by email to elap@health.ny.gov.

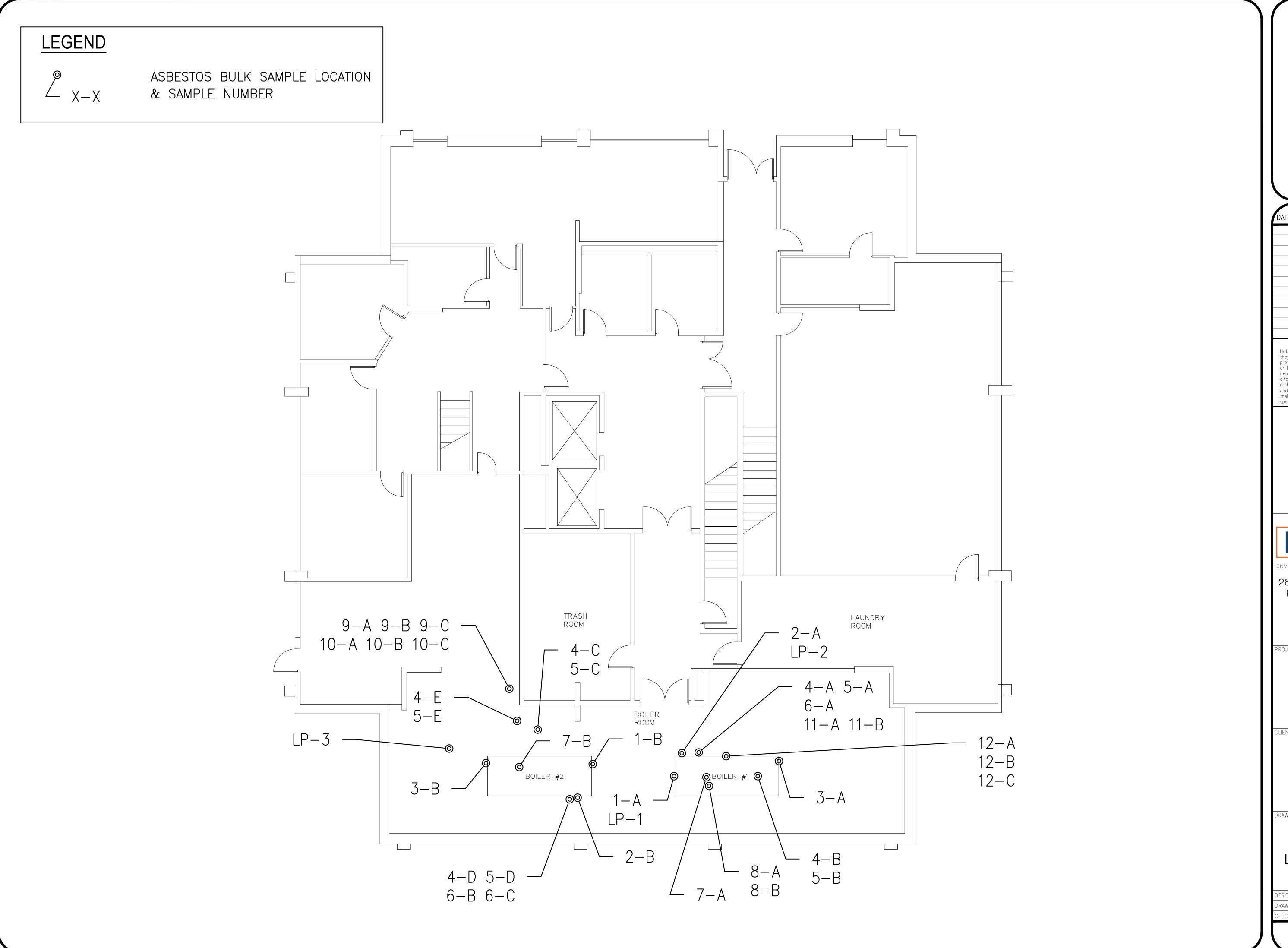
ATTACHMENT B

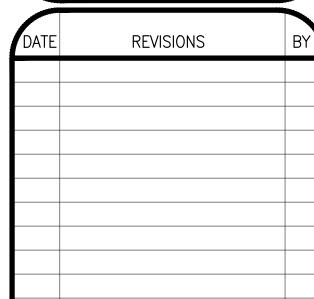
Sample Location Plans, Analytical Reports and Chain of Custody Forms



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK





Note: It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.

DRAWING ALTERATION



280 E. Broad St., Suite 170 Rochester, N.Y. 14604 (585) 385-7417 Fax: (585) 546-1634 luengineers.com

DANFORTH EAST **BOILER ROOM**

ROCHESTER HOUSING AUTHORITY

675 West Main St. Rochester, NY 14611

DRAWING TITLE:

BULK SAMPLE LOCATION PLAN

1 OF 1	AB-1
SHEET	DRAWING No.
CHECKED BY: MCS	PROJECT No. 40609-56
DRAWN BY: EMC	DATE: 2-21-2024
DESIGNED BY: EMC	SCALE: N.T.S.



Client: <u>Lu Engineers</u>

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 1 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

				PLM Asbestos	PLM	N	TEM Asbestos	TEM	PLM	Non-
				Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrous
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
									Percentage	Material
										%
1-A	655	Boiler #1 Boiler Room	Silver Paint	Inconclusive	0%	П	None Detected	<1.0%	None Detected	100%
				No Asbestos Detected		٧				
1-B	656	Boiler #2 Boiler Room	Silver Paint	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	None Detected	100%
2-A	657	Boiler #1 Boiler Room	Blue Paint	Inconclusive No Asbestos Detected	0%	V	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
2-В	658	Boiler #2 Boiler Room	Blue Paint	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	None Detected	100%
3-A	659	Boiler #1 Seam Boiler Room	White Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Fiberglass 100%	0%
3-B		Boiler #2 Seam Boiler Room	White Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Fiberglass 100%	0%
4-A	661	Boiler #1 Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 3.9%	3.9%		Not Required	N/A	Mineral Wool 30%	66.1%
4-B	662	Boiler #1 Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 3,1%	3.1%		Not Required	N/A	Mineral Wool 30%	66.9%
4-C		Chimney Pipe Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 15%	15%		Not Required	N/A	Mineral Wool 30%	55%
4-D		Boiler #2 on Elbow Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 1,9%	1.9%		Not Required	N/A	Mineral Wool 30%	68.1%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-B2-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/8/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: M. Lochner
Date of Analysis: 1/10/2024/

Laboratory Results Approved By: Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 2 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

				PLM Asbestos	PLM	N	TEM Asbestos	TEM	PLM	Non-
				Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrous
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
									Percentage	Material
										%
4-E	665	Boiler #2 on Elbow Boiler Room	Gray Fibrous Mudded Fittings	None Detected	0%		Not Required	N/A	Mineral Wool 30%	70%
5-A	666	Boiler #1 Boiler Room	White Fibrous Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 50%	50%
5-B	667	Boiler #1 Boiler Room	White Pipe Covering	Chrysotile 2.9%	2.9%		Not Required	N/A	Fiberglass 5%	92.1%
5-C	668	Chimney Pipe Boiler Room	White Pipe Covering	Chrysotile 2.0%	2.0%		Not Required	N/A	Fiberglass 5%	93%
5-D	669	Boiler #2 on Elbow Boiler Room	White Fibrous Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 50%	50%
5-E	670	Boiler #2 on Elbow Boiler Room	White Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 1%	99%
6-A	671	Boiler #1 Boiler Room	Tan Fibrous Fiberglass Pipe Covering	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	Fiberglass 10%	90%
6-B	672	Boiler #2 Boiler Room	Tan Fibrous Fiberglass Pipe Covering	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	Fiberglass 10%	90%
7-A	673	Boiler #1 Boiler Room	Orange Fibrous Gasket	Chrysotile 67%	67%		Not Required	N/A	Cellulose 20%	13%
7-B	674	Boiler #2 Boiler Room	Orange Fibrous Gasket	Chrysotile 57%	57%		Not Required	N/A	Cellulose 30%	13%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

V NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

TESTING TO PLAN A LI

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/8/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: M. Lochner
Date of Analysis: 1/10/2024

Laboratory Results Approved By Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.

Gel Willen



Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement 140 West Avenue, Rochester, New York Page: 3 of 10

Sample Date: 1/3/2024

Client ID	Lab ID			PLM Asbestos	PLM	N	TEM Asbestos	TEM	PLM	Non-
Client ID	Lab ID									
Client ID	Lab ID			Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrous
		Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
						l	-		Percentage	Material
										%
6-C	674a	Not Provided	Tan Pipe Covering	Inconclusive No Asbestos	0%	v	None Detected	<1.0%	None Detected	100%
				Detected		_				
						H				

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/8/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: M. Lochner
Date of Analysis: 1/10/2024

Laboratory Results Approved By:
Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 4 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

				PLM Asbestos Fibers Type &	PLM Total	N O	TEM Asbestos Fibers Type &	TEM Total	PLM Non-Asbestos	Non- Fibrous
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type & Percentage	Matrix Materia %
8-A	675	Boiler #1 Boiler Room	Tan Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Cellulose 100%	0%
8-B	676	Boiler #1 Boiler Room	Tan Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Cellulose 100%	0%
9-A	677	Boiler #2 Chimney Boiler Room	White Fibrous Cover	Chrysotile 11%	11%		Not Required	N/A	None Detected	89%
9-B	678	Boiler #1 Chimney Boiler Room	White Fibrous Cover	Chrysotile 13%	13%		Not Required	N/A	None Detected	87%
10-A		Boiler #2 Chimney Boiler Room	Gray Fibrous Breeching	Chrysotile 25% Amosite 6.0%	31%		Not Required	N/A	None Detected	69%
10-B		Boiler #1 Chimney Boiler Room	Gray Fibrous Breeching	Chrysotile 5.6% Amosite 7.0%	12.6%		Not Required	N/A	None Detected	87.4%
11-A	681	Boiler #1 Boiler Room	White Sealer	Inconclusive No Asbestos Detected	0%	V	None Detected	<1,0%	Fiberglass 5%	95%
11-B	682	Boiler #1 Boiler Room	White Sealer	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	Fiberglass 5%	95%
12-A	683	Boiler #1 Boiler Room	Tan Fibrous Boiler Insulation	None Detected	0%		Not Required	N/A	Mineral Wool 100%	0%
12-B	684	Boiler #1 Boiler Room	Tan Fibrous Boiler Insulation	None Detected	0%		Not Required	N/A	Mineral Wool 100%	0%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/9/2024

Microscope: JEOL-100CX-H#EM-156094-87

TEM Analyst: M. Lochney Date of Analysis: 1/10/2024

Laboratory Results Approved By:
Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



Client: <u>Lu Engineers</u>

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement 140 West Avenue, Rochester, New York Page: 5 of 10

Sample Date: 1/3/2024

Client ID	Lab ID		Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	N O B	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non- Fibrous Matrix Material %
9-C	684a	Not Provided	White Fibrous Cover	Chrysotile 15%	15%		Not Required	N/A	None Detected	85%
10-C	684b	Not Provided	Gray Fibrous Breeching	Chrysotile 22%	22%		Not Required	N/A	None Detected	78%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

V NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/9/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: N/A
Date of Analysis: N/A

Laboratory Results Approved By:

Asbestos Technical Director or Designee Fernanda Weini

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.

ELAP ID No.: 10958



Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 6 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

		1,0,2021		PLM Asbestos	PLM	N	TEM Asbestos	TEM	PLM	Non-
				Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrous
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
		F-			11000000	-	l or commen	11000000	Percentage	Material
									rereemage	%
12-C	685	Boiler #2 Boiler Room	Tan Fibrous Boiler	None Detected	0%	H	Not Required	N/A	Mineral Wool	0%
15 0			Insulation		370		Not required	14/11	100%	070
_										

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

VNOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/4/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: N/A
Date of Analysis: N/A

Laboratory Results Approved By:
Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.

Bulk Sample Chain of Custody	of Custody	42-0400	LU Engineers ENVIRONMENTAL . TRANSPORTATION . CIVIL
Project Name: Danforth Tower East - Boiler Replacement	st – Boiler Replacement	Lu Project # 40609-56	50186
Site Address: 140 West Avenue, Rochester, New York	chester, New York	Laboratory Name: Para	Laboratory Name: Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address: 179	179 Lake Avenue
	X NVS EL AD DI M/TEN	Roc	Rochester, New York
Lu Engineers		Turn Around Time 1-10	Comments:
280 East Broad Street, Suite 170 Bochogtor NV 14604	TEM Only	☐ Immediate ☐ 12 HR	Stop Positive
Mothester, In 14004			
Email: msmith@luengineers.com, sdavis@luengineers.com,	luengineers.com,		\$
ecrafts@luengineers.com, hsmith@luengineers.com	eers.com	☐ 72 HR ☐ 5 Day	₹1

۵.				
	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES
668	1-A	Boiler #1, Boiler Room	Silver Paint	
959	1-B	Boiler #2, Boiler Room	Silver Paint	
(57	2-A	Boiler #1, Boiler Room	Blue Paint	
88	2-B	Boiler #2, Boiler Room	Blue Paint	
£3	3-A	Boiler #1 Seam, Boiler Room	White Boiler Rope	
óko	3-B	Boiler #2 Seam, Boiler Room	White Boiler Rope	
199	4-A	Boiler #1, Boiler Room	Grey Mudded Fittings	
662	4-B	Boiler #1, Boiler Room	Grey Mudded Fittings	
699	4-C	Chimney Pipe, Boiler Room	Grey Mudded Fittings	
h99	4-D	Boiler #2 on Elbow, Boiler Room	Grey Mudded Fittings	

Date/Time 1 - 3 - 1-1	Date/Time 1.3.24 16
Relinquished By H. frowan	Received By Gmelian Bungele
Date Sampled: 1・3・1中	Inspector: E · C / H · S

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Lu Engineers

			45°C 42-040 0	20F4	ENVIRONMENTAL . TRANSPORTATION . CIVIL) \(\brace{\brace}{2}
roject Name:	Danforth Tower Ea	roject Name: Danforth Tower East - Boiler Replacement	Lu Project # 40609-56	95-609		
ite Address:	140 West Avenue, Rochester, New York	chester, New York	Laboratory Name:		Paradigm Environmental Services	
Results to:		Sample Type	Laboratory Address:	1	179 Lake Avenue	
,		X MVS EL AB BI M/TEM			Rochester, New York	
Lu Engineers		O BIM Out.	Turn Around Time 1-16	91-10	Comments:	
280 East Broad Street, Suite 170	Street, Suite 170	TEM Only	Immediate	☐ 12 HR	Stop Positive	
NOCIECTE, IN I.	+00+	I will omy	au 1,7	40 110	ハゴ	
Email: msmith@lu	Email: msmith@luengineers.com, sdavis@luengineers.com,	lluengineers.com,		4u of [
ecrafts@luengineer	ecrafts@luengineers.com, hsmith@luengineers.com	eers.com	72 HR	V 5 Day		

	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES
665	4-E	Boiler #2 on Elbow, Boiler Room	Grey Mudded Fittings	
999	5-A	Boiler #1, Boiler Room	White Pipe Covering	
667	5-B	Boiler #1, Boiler Room	White Pipe Covering	
899	5-C	Chimney Pipe, Boiler Room	White Pipe Covering	
699	5-D	Boiler #2 on Elbow, Boiler Room	White Pipe Covering	
B	5-E	Boiler #2 on Elbow, Boiler Room	White Pipe Covering	
K9	6-A	Boiler #1, Boiler Room	Tan Fiberglass Pipe Covering	
719	6-B	Boiler #2, Boiler Room	Tan Fiberglass Pipe Covering	
673	7-A	Boiler #1, Boiler Room	Orange Gasket	E
K.9	a 7-B	Boiler #2, Boiler Room	Orange Gasket	
A hc9	14 F			

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Received By Gweryn Bugger

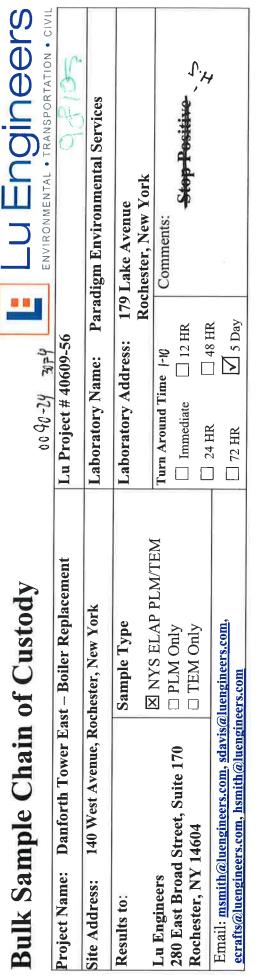
Relinquished By M. Fraudh

Date Sampled: 1 - 3 - 14

Inspector: 6.C / H.5

16:03

Date/Time 1 - 3 - 24



	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES	
629	8-A	Boiler #1, Boiler Room	Tan Boiler Rope		y-
9/9	8-B	Boiler #1, Boiler Room	Tan Boiler Rope		Υ
677	9-A	Boiler #2 Chimney, Boiler Room	White Cover		P ⁰
673	9-B	Boiler #1 Chimney, Boiler Room	White Cover		
K	10-A	Boiler #2 Chimney, Boiler Room	Grey Breeching		
680	10-B	Boiler #1 Chimney, Boiler Room	Grey Breeching		
(89)	A-11	Boiler # 1 , Boiler Room	White SPaler		
789	11 - 13	11	th w		
683	17 - A	n 10	TON Sciler Injuiation		
689	11 - 8	**	N II		
684 B	0-1 Date Sampled: 1-3-14		Relinquished By H. Fm Fen	Date/Time 1 · 3 · 14	-

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Received By GMerry

Inspector: 6.c / H.5

Date/Time 1-3-24 16:03

Bulk Sample Chain of Custody	of Custody	htoh 62-0600	E LU Engineers ENVIRONMENTAL - TRANSPORTATION - CIVIL
Project Name: Danforth East Tower – Boiler Replacement	er – Boiler Replacement	Lu Project # 40609-56	POLYCI
Site Address: 140 West Avenue, Rochester, New York	chester, New York	Laboratory Name: Pa	Laboratory Name: Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address:	179 Lake Avenue
	X NVS EL AB BLAZEN		Rochester, New York
Lu Engineers	DIMONIC	Turn Around Time [-(0	Comments:
280 East Broad Street, Suite 170 Rochester, NV 14604	TEM Only	☐ Immediate ☐ 12 HR	
		74 HR	
Email: msmith@luengineers.com, sdavis@luengineers.com, ecrafts@luengineers.com, hsmith@luengineers.com	lluengineers.com, eers.com	_	

	T	1	4	T	Ť T	T	1	T	1
NOTES									
MATERIAL	Tan Boiler Insulation								
SAMPLE LOCATION	Boiler #2, Boiler Room								
FIELD ID	12-C								

Date Sampled: 1 - 3 - 1014	Relinanished By H. Frank	Date/Time
		Carol Time
spector: 6 · C / H·S	Received By Gow July Burger	Date/Time 132

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com



Analytical Report For

Lu Engineers, Inc.

For Lab Project ID

240051

Referencing

40609-56

Prepared

Monday, January 8, 2024

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below:

Reduced sample size used for Lead analysis due to limited sample volume. Kindly refer to Chain of Custody Supplement for the affected samples.

Emily fainer

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-1 Silver

Lab Sample ID: 240051-01 **Date Sampled:** 1/3/2024 9:00

Matrix: Paint Date Received 1/3/2024

Lead

Analyte Result Units Qualifier Date Analyzed

Lead **0.276** % 1/5/2024 10:42

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 Data File: 240105A



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-2 Blue

Lab Sample ID: 240051-02 **Date Sampled:** 1/3/2024 9:00

Matrix: Paint Date Received 1/3/2024

Lead

Analyte Result Units Qualifier Date Analyzed

Lead **0.100** % 1/5/2024 10:45

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 Data File: 240105A



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-3 Blue-Grey

Lab Sample ID: 240051-03 **Date Sampled:** 1/3/2024 10:00

Matrix: Paint Date Received 1/3/2024

Lead

Analyte Result Units Qualifier Date Analyzed

Lead **0.0320** % 1/5/2024 10:48

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 Data File: 240105A



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

- "<" = Analyzed for but not detected at or above the quantitation limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "H" = Denotes a parameter analyzed outside of holding time.
- "Z" = See case narrative.
- "D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.
- "I" = Result estimated between the quantitation limit and half the quantitation limit.
- "L" = Laboratory Control Sample recovery outside accepted QC limits.
- "P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
- "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
- "*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
- "(1)" = Indicates data from primary column used for QC calculation.
- " \overline{A} " = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
- "F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, term or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.



CHAIN OF CUSTODY

Temperature:	Holding Time:	Preservation:	Container Type:	Receipt Parameter	Sample Condition: Per NELAC/ELAP 210/241/242/243/244	**LAB USE ONLY BELOW THIS LINE**	10	9	8	7	0	G	4	3 7 1000	2	1 1/3/2024 09 80	DATE TIME O			PROJECT NAME/SITE NAME:					
					210/241/242/2	IS LINE**								٧	¥	4	w ≽ zı G		COMMENTS:	ATTN:	PHONE:	CITY: R	ADDRESS	COMPANY:	
z	z []	z 	~ 	NELAC Compliance	143/244		11							LP-3	LP-2	NP-1	SAMPLE LOCATION/FIELD ID		msmith@luengineers.com, sdavis@luengineers.com	Steve Davis	385-7417 FAX: 546-1634	ROCHESTER STATE: NY	ADDRESS: 280 East Broad Street, Suite 170	" LU ENGINEERS	REPORT TO:
Received @ Lab By	Received By	H. Mandel By	EVAN CAAFTS Sampled By											*	~ e	PAINT	X − Z		m, sdavis@lueng	ATTN:		Y ZIP: 14604 CITY:		col	
ANAM			गंड			CONTRACT OF STREET								\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	K K	- ×	TOTAL LEAD	REQUESTED A	ineers.com	īN:		Υ:	ADDRESS:	COMPANY: Same	INVOICE TO:
113 24 Date/Time	Date/Time	1 3 1024 Date/Time	1 3 2024 Date/Time															IESTED ANALYSIS			FAX:	STATE:			E TO:
7730	P.I.F.	15:80	09 50 - 10°C Total Cost:			THE RESERVE THE PERSON NAMED IN							128	BLUE - GREY	BLUE	SILVEE	REMARKS		Quotation #	1 2		ZIP: TURNAROUND TIME: (WORKING DAYS)	740051		
			st											03	1 10 2	O I	PARADIGM LAB SAMPLE NUMBER			3 X 5	STD OTHER		40609 - 56 ge 7	CLIENT PROJECT #:	



Chain of Custody Supplement

Client:	LU	Completed by:	Glen Pezzilo
Lab Project ID:	240051	Date:	1/3/24
	Sample Cond Per NELAC/ELA	ition Requirements P 210/241/242/243/244	
Condition	NELAC compliance with the sam Yes	ple condition requirements u No	upon receipt N/A
Container Type Comments			
Transferred to method- compliant container			
Headspace (<1 mL) Comments			
Preservation Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time Comments			
Temperature Comments			
Compliant Sample Quantity/Ty Comments	pe	24 vol	

ATTACHMENT C

Asbestos Location Plans and Asbestos Inspection Summary Table



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

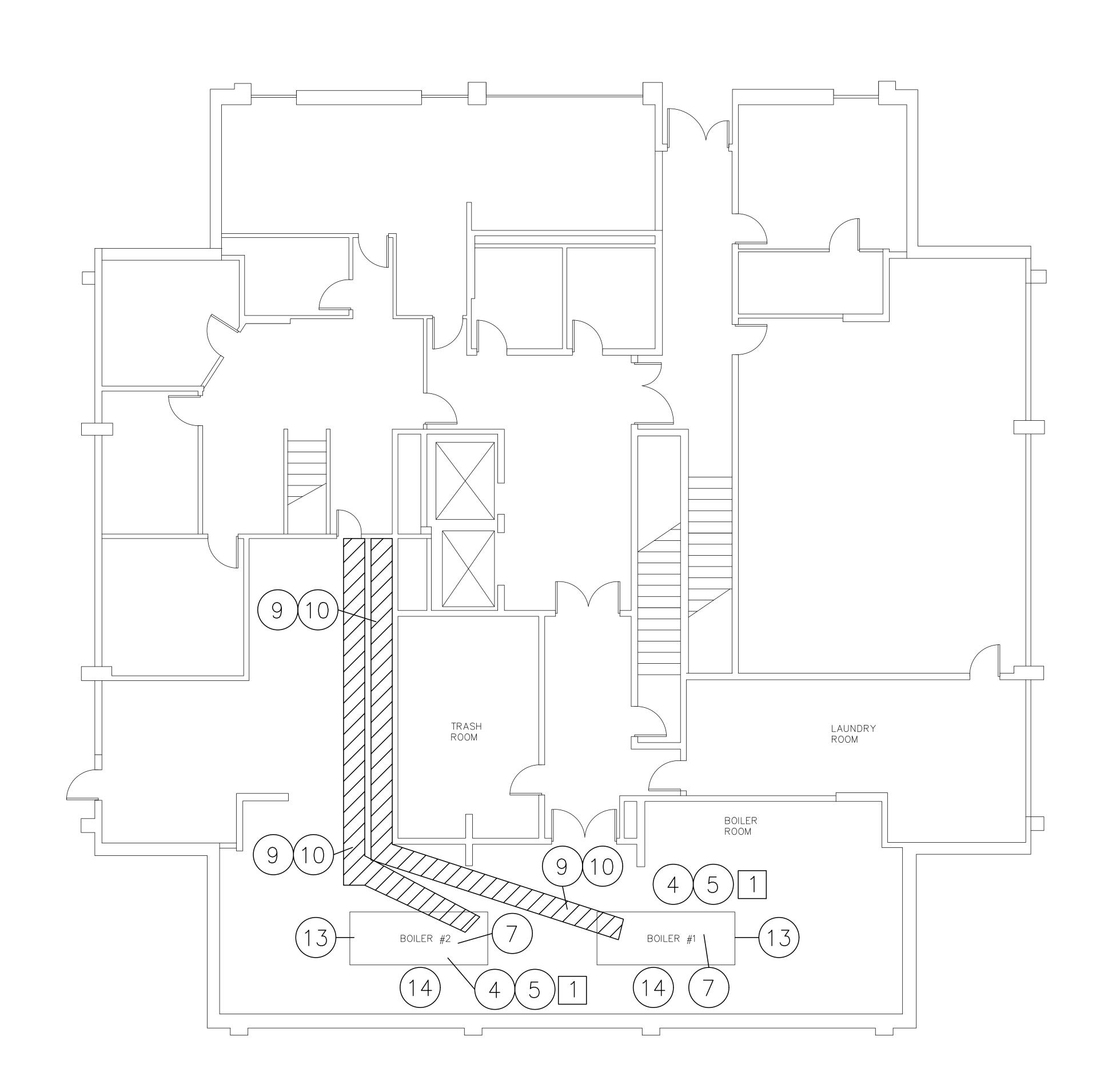
DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK

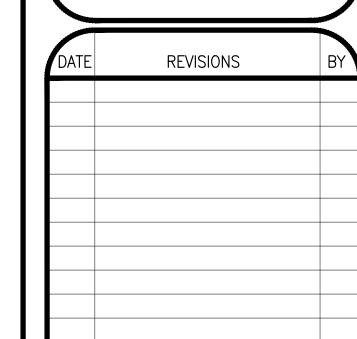
LEGEND

- APPROXIMATE LOCATION OF ASBESTOS CONTAINING GREY MUDDED FITTINGS/INSULATION
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING WHITE PIPE COVERING
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING ORANGE GASKET
- 9 APPROXIMATE LOCATION OF ASBESTOS CONTAINING WHITE COVER
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING GREY BREECHING
 - APPROXIMATE LOCATION OF ASSUMED ASBESTOS CONTAINING REFRACTORY CEMENT
 - APPROXIMATE LOCATION OF ASBESTOS CONTAINING VALVE GASKET

SPECIAL NOTES

ASBESTOS CONTAINING PIPE
COVERING AND MUDDED
FITTINGS EXIST ABOVE AND
BESIDE THE BOILERS





DRAWING ALTERATION

It is a violation of law for any p

Note: It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.



280 E. Broad St., Suite 170 Rochester, N.Y. 14604 (585) 385-7417 Fax: (585) 546-1634 luengineers.com

PROJECT:

DANFORTH EAST BOILER ROOM

CLIENT

ROCHESTER HOUSING AUTHORITY

675 West Main St. Rochester, NY 14611

DRAWING TITLE:

ASBESTOS LOCATION PLAN

DESIGNED BY: EMC SCALE: N.T.S.

DRAWN BY: EMC DATE: 2-21-2024

CHECKED BY: MCS PROJECT No. 40609-56

SHEET DRAWING No.

1 OF 1 AL-1

CADDNAN

Asbestos Inspection Summary Table Danforth Tower East - Boiler Room 140 West Avenue, Rochester, New York

Homogeneous Area Description	Homogeneous Area ID No.	Floor & Location	Tested or Assumed		Approx. Quantity
Grey Mudded Fittings	4	Boiler Room on Piping	Tested	Y Total	40 LF 40 LF
White Pipe Covering	5	Boiler Room on Piping	Tested	Y Total	40 LF 40 LF
Orange Gasket	7	Boiler Room on Piping	Tested	Y Total	4 SF 4 SF
White Cover	9	Boiler Room on Chimney, Ductwork	Tested	Y Total	745 SF 745 SF
Grey Breeching	10	Boiler Room on Chimney, Ductwork	Tested	Y Total	745 SF 745 SF
Refractory Cement	13	Boiler Room inside of Boiler	Tested	Assumed Total	20 SF 20 SF
Valve Gasket	14	Boiler Room on Piping	Tested	Assumed Total	10 SF 10 SF



ATTACHMENT D

Site Photographs

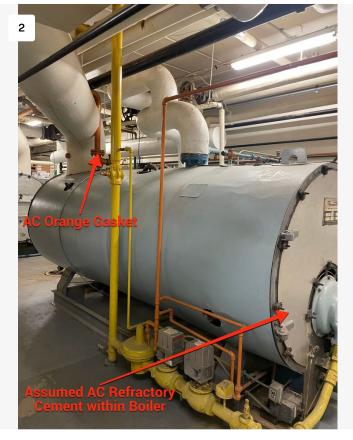


ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

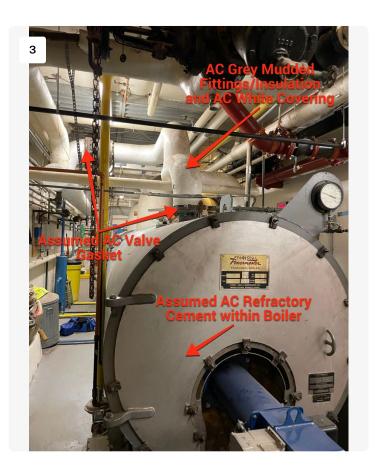
DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK Danforth East Boiler Room 1/11/2024



Project: Danforth East Date: 1/3/2024, 9:23am Creator: Hayden Smith



Project: Danforth East Date: 1/3/2024, 9:23am Creator: Hayden Smith Danforth East Boiler Room 1/11/2024



Project: Danforth East Date: 1/3/2024, 9:24am Creator: Hayden Smith

4



Project: Danforth East Date: 12/5/2023, 11:05am Creator: Mitch Smith

ASBESTOS REMEDIATION

ATTACHMENT B

NYSDOL SITE SPECIFIC VARIANCE

STATE OF NEW YORK DEPARTMENT OF LABOR STATE OFFICE BUILDING CAMPUS ALBANY, NEW YORK 12226-0100

Variance Petition

Of

Lu Engineers Petitioner's Agent on Behalf Of

Rochester Housing Authority
Petitioner

in re

Premises: Danforth Tower East

140 West Avenue Rochester, NY 14611

Interior Boiler Room Friable TSI Removal Project

File No. 24-0367

DECISION

Case 1

ICR 56

The Petitioner, pursuant to Section 30 of the Labor Law, having filed Petition No. 24-0367 on March 22, 2024, with the Commissioner of Labor for a variance from the provisions of Industrial Code Rule 56 as hereinafter cited on the grounds that there are practical difficulties or unnecessary hardship in carrying out the provisions of said Rule; and the Commissioner of Labor having reviewed the submission of the petitioner dated March 21, 2024; and

Upon considering the merits of the alleged practical difficulties or unnecessary hardship and upon the record herein, the Commissioner of Labor does hereby take the following actions:

Case No. 1 ICR 56-7.5(b)

VARIANCE GRANTED. The Petitioner's proposal for interior removal of friable TSI in the boiler room in quantities as stated in the attached proposal, at the subject premises in accordance with the attached 47-page stamped copy of the Petitioner's submittal is accepted; subject to the Conditions noted below:

THE CONDITIONS

Full-Time Project Monitor

- A full-time independent project monitor (PM) shall be on site and is responsible for oversight of the abatement contractor during all abatement activities to ensure compliance with ICR 56 requirements and variance conditions.
- 2. In addition, the PM shall ensure that no visible emissions are generated during abatement activities. If visible emissions are observed, work practices shall be altered according to the PM's recommendations.
- 3. The PM shall perform the following functions during asbestos abatement projects in addition to functions already required by ICR-56:
 - a. Inspection of the interior of the asbestos project work area made at least twice every work shift accompanied by the Asbestos Supervisor.
 - Observe and monitor the activities of the asbestos abatement contractor to determine that proper work practices are used comply all applicable asbestos laws and regulations.
 - c. Inform the asbestos abatement contractor of work practices that, in the PM's opinion, pose a threat to public health or the environment, and are not in compliance with ICR-56 and/or approved variances or other applicable asbestos rules and/or regulations.
 - d. Document in the Project Monitor Log observations and recommendations made to the Asbestos Supervisor based upon the interior/exterior observations of the asbestos project made by the PM.
 - e. Duties specified in variances issued for the project.
- 4. The PM shall alert the local District Office of the NYSDOL Asbestos Control Bureau whenever, after the PM has provided recommendations to the Asbestos Supervisor, unresolved conditions remain at the asbestos project site which present a significant potential to adversely affect human health or the environment.
- 5. The PM is not onsite to direct the abatement workers in their work. That is the responsibly of the Contractor's designated Supervisor. The ultimate caliber of work performance and quality of the completed project is the responsibility of the contractor who performs the work.
- 6. The PM is not responsible for enforcing Local, State, Industry, or Federal regulations, rules or codes which are not directly applicable to the contracted asbestos abatement activities. These would include, but not limited to, fire codes, electrical codes, building codes, wage rates schedules, etc. While the PM is not responsible for enforcement of these items, the Contractor is still responsible for compliance with such requirements as applicable.
- 7. The PM is responsible for any duties specified in his/her contract with the Owner.

Remote Personal Decontamination Units:

- 8. Remote Decontamination Units as per ICR 56-7.5(d) **are allowed** for this project. If during abatement of the material, visible emissions are observed, then the decontamination unit will need to be attached.
- 9. Remote Personal Decontamination Units must be located on-site and within 50 foot of the structure that is subject to abatement. These enclosure systems shall be removed only after satisfactory clearance air monitoring results have been achieved or the abatement project is complete. The walkway from the regulated abatement work area to the decontamination system or next work area shall have a cleared pathway. This walkway will be delineated and separated from non-certified personnel access.
- 10. The pathway to the decontamination unit will need to be properly cleaned and cleared before the homeowner will be able to access the area.
- 11. Each restricted area shall have an attached air lock within which workers shall remove their outer suit, wipe off their inner suit and don a clean outer suit prior to proceeding to another work area or to the remote decontamination unit over a walkway as defined above.
- 12. If remote decontamination units are to be used, an airlock as defined in Subpart 56-7.5(b)(11) of this Code Rule shall be constructed at the entrance to each restricted area and shall be large enough to serve as a changing area. Within the airlock, workers shall remove their outer suit, wipe off their inner suit and don a clean outer suit prior to proceeding to another work area or to the remote personal decontamination unit over a walkway as defined above. The airlock/changing area shall not be used as a waste storage area.
- 13. Waste decontamination shall comply with ICR 56-7.5(f).
- 14. The restricted areas regulated abatement work areas, decontamination units, airlocks, and dumpster areas shall be cordoned off at a distance of twenty-five feet (25') and shall remain vacated except for certified workers until satisfactory clearance air monitoring results have been achieved or the abatement project is complete. These areas shall have Signage posted in accordance with Subpart 56-8.1(b) of this Code Rule.
- 15. Usage of this variance is limited to those asbestos removals identified in this variance or as outlined in the Petitioner's proposal.

In addition to the conditions required by the above specific variances, the Petitioner shall also comply with the following general conditions:

GENERAL CONDITIONS

- A copy of this DECISION and the Petitioner's proposals shall be conspicuously displayed at the entrance to the personal decontamination enclosure.
- 2. This DECISION shall apply only to the removal of asbestos-containing materials from the aforementioned areas of the subject premises.
- 3. The Petitioner shall comply with all other applicable provisions of Industrial Code Rule 56-1 through 56-12.
- 4. The NYS Department of Labor Engineering Service Unit retains full authority to interpret this variance for compliance herewith and for compliance with Labor Law Article 30. Any deviation to the conditions leading to this variance shall render this variance Null and Void pursuant to 12NYCRR 56-12.2. Any questions regarding the conditions supporting the need for this variance and/or regarding compliance hereto must be directed to the Engineering Services Unit for clarification.
- 5. This DECISION shall terminate on **March 31, 2025**.

Date: March 22, 2024.

ROBERTA L. REARDON COMMIȘSIONER OF LABOR

Ву

Chek Beng Ng,\P.E.

Professional Engineer 2 (Industrial)

PREPARED BY: Demissie Woyecha, P.E.

Professional Engineer 1 (Industrial)

REVIEWED BY: Chek Beng Ng, P.E. Professional Engineer 2 (Industrial)



New York State Department of Labor Division of Safety and Health - Engineering Services Unit Building 12, Room 159 State Office Campus Albany, N.Y. 12240

Petition for an Asbestos Variance

To apply for an asbestos variance the Project Designer must:

- Complete all of the information on pages one and two of this asbestos variance request. Please type or print.
- Sign and date page two of the certification and all of the attachments.
- Send two copies of the petition and all attachments, with your \$350 fee, to the address at the top of this page.
 Make your check or money order payable to the Commissioner of Labor.
- Optional: To speed up the process you may include a self-addressed, stamped, express-mail envelope.

	s this petition related to a safety or health emergency? YesXNo yes, explain:
	lame of Petitioner, (Property Owner): _Rochester Housing Authority street Address: _675 East Main Street
c. C	ity: <u>Rochester</u> d. State: <u>NY</u> e. Zip: <u>14611</u>
	elephone Number: (585) 697 - 3600 g. Fax Number: () - etitioner's Federal Employee Identification Number (FEIN)
b. S	etitioner's Agent (Asbestos Contractor) Firm Name: _Lu Engineers treet Address: _ 280 East Broad Street, Suite 170
c. C	tity: <u>Rochester</u> d. State: <u>NY</u> e. Zip: <u>14604</u> elephone Number: (585) 385 - 7417 g. Fax Number: (585) 546 - 1634
T. 16	elephone Number: (585) 385 - 7417 g. Fax Number: (585) 546 - 1634
4a. A	sbestos Contractor License No. 29286 b. Name of Firm: Joseph C. Lu Engineering, P.C.
a. A b. T c. C	Building Description: Iffecting premises known as: Danforth Tower East These premises are situated on the _X_North,South,East,West side ofStreet, _X_Ave,Road County of _Monroe Itreet Address:140 West Avenue
	Sity Rochester f. State: NY g. Zip 14611
h. Is	s building occupied? X Yes No urrent function of building: 12 Story High-rise Apartment Building
I. W	oproximate area (square feet) of building:67,364 SF k. Number of stories or height in feet:Twelve
a. Is	Order To Comply or Notice of Violation. Attach copy. Sued to:OwnerAsbestos ContractorOperatorOther lame on Order or Notice: //
	ist the Industrial Code Rule (ICR) citations given on the Order to Comply or Notice of Violation:
	a variance has been granted previously for work closely resembling this project list: ariance number:16-0268

SH 752 (0208) 1

Note: Add a separate typed or printed page for each work area and work procedure. Sign and date each 4a9367

8. Work Area Description Table: Attach additional tables and scale drawings of work area and pictures, as needed.

Work Area Designation	Exterior or Interior	Work/Room Area Dimensions	Type of Asbestos Containing Material (ACM)	Quantity of ACM	Condition of ACM (level of damage)	Friability of ACM (non-friable or friable)	Type of Containment (full, 2-layer tent, single layer tent, open-air, etc.)
			Refe	r to Attachm	ent A		

9.	ICR 56 Relief Sought: List the individual sections of ICR 56 for which relief is sought, for each work area or method used. Provide sufficient detail in an attachment. Refer to Attachment B
10.	Hardship Description: What is the hardship, (e.g. Limited room for decons, exhaust ducts must be longer than 25 feet, all surfaces are contaminated and cannot be plasticized) for each work area or method used? Provide sufficient detail in an attachment. Include condemnation letter or EPA Approval letter if applicable. Refer to Attachment C
11.	Proposed Abatement Method Description for each work area or method used. Include scale drawings and pictures as necessary. Lack of sufficient detail will delay issuance of variance decision. a. Will proposed abatement methods render non-friable ACM material friable? YesXNo b. What proposed abatement method, increased engineering controls and detailed procedures will be used to compensate for the relief being sought? (i.e. Increased negative air rate, negative pressure glovebag, negative pressure glovebox, high temperature glovebag, intact component removal, etc.) Include sufficiently detailed procedures to complete the proposed work
	Refer to Attachment D

Project Designer Certification

I request that the Commissioner of Labor issue a variance from the requirements of Industrial Code Rule (ICR) 56. This request is based on the information in this application and the attached documents.

I certify that the information contained in this petition is true and accurate.

I understand that if a variance is granted it may be withdrawn by the Commissioner:

- if any of the information provided in this petition is found to be inaccurate or
- if there are violations of Article 30 of the New York State Labor Law or New York State regulations.

I give the Commissioner of Labor permission to provide all of my companies records for Unemployment Insurance (U.I.) reports and contributions to employees of the New York State Department of Labor. This includes information about withholding, wage reporting, U.I. returns, U.I.registration, New Hires, and all records of U.I. delinquencies. This information may only be used for government purposes regarding the licensing and certification of this company as required by Article 30 of the New York State Labor Law and the regulations of the New York State Department of Labor, and for monitoring the company's compliance with Article 30 and ICR 56.

2 a. Project designer name (print): <u>Evan Crafts</u>		
b. Project Design Asbestos Contractor firm name: <u>Lu Engineers</u>		
c. Street: 280 East Broad Street, Suite 170		
d. City: Rochester e. State: NY f. Zip:	14604 g. Phone: (585)	385 - 7417
h. Designer certificate number: <u>24-61N0Y-SHAB</u>	i. Expiration Date: <u>06</u>	/ 30 / 2025
j. Design Firm Asbestos Contractor License Number 29286	k. Expiration Date: <u>05</u>	/ 31 / 2024
3 a. Project designer signature:	b. Date: <u>02</u>	/ 21 / 2024

SH 752 (0208) 2

Lu Engineers Petition for a Variance for: Danforth Tower East, Rochester, New York March 2024

PROJECT DESCRIPTION

The Rochester Housing Authority is planning to replace two (2) boilers located at 140 West Avenue (Danforth East) in the City of Rochester, New York. The building is currently occupied with tenants and staff, and the boilers are within a functioning boiler room located on the ground floor. The boiler room contains the two boilers, main electrical panels for the building, an emergency generator, fire suppression system pumps and other associated equipment. All these systems will need to remain functional during the abatement process based on current building occupation. Abatement of the boilers will be completed sequentially, including the associated piping, breeching and ductwork as required prior to planned removal of each boiler unit.

In accordance with current regulations, an asbestos investigation, including sampling, has been completed to identify and estimate the approximate amount, location, and condition of the asbestos and suspect asbestos containing materials within this area. Lu Engineers prepared a pre-renovation Asbestos, Lead Paint, and PCB Caulk Survey Report, dated February 2024. See Attachment A for a copy of the report.

ATTACHMENT A. Form DOSH-752 (0208) Item 8. Work Area Description Table

Work Area Designation	Work Area Dimensions	Type of ACM	Quantity of ACM	Condition of ACM	Friability of ACM	Type of Containment
#1 Boiler 1	45' x 15' – Irregular Shape	Pipe Insulation Covering, Mudded Fittings, Gaskets, Breeching, Refractory Cement	387 SF 30 LF	Fair	Friable	Two Layer Tent with
#2 Boiler 2	30' x 15' – Irregular Shape	Pipe Insulation Covering, Mudded Fittings, Gaskets, Breeching, Refractory Cement	387 SF 30 LF	Fair	Friable	Glove bags, Negative Air

SF - Square Feet

ATTACHMENT B. Form DOSH-752 (0208) Item 9. ICR 56 Relief Sought:

On behalf of the owner, Lu Engineers requests a variance from the following general sections on the grounds that literal compliance would cause unnecessary hardship:

1) ICR 56-7.5(b) Personal Decontamination System Enclosure – Large Project

Designer of Record: <

NYSDOL Cert. #: 24-61NOY-SHAB

Lu Engineers Petition for a Variance for: Danforth Tower East, Rochester, New York March 2024

ATTACHMENT C. Form DOSH-752 (0208) Item 10. Hardship Description

1) Section 56-7.5(b) – Personal Decontamination System Enclosure – Large Project

The ground floor boiler room has restricted space due to the amount of equipment and essential supporting apparatus that is housed within the footprint of the Boiler Room. Construction of a large, or small, personal decontamination unit within the footprint of the Boiler Room would not be possible (pictures attached). The Owner is requiring access to the boiler room during Phase IIA through Phase IIC abatement activities, which makes it that more difficult to construct a decontamination unit within the Boiler Room footprint. This also includes most rooms that are immediately adjacent and in close proximity to the Boiler Room.

ATTACHMENT D. Form DOSH-752 (0208) Item 11. Proposed Abatement Method Description

It is the intent of this request to provide an equivalent, if not higher level of protection, for both the removal workers and the general public, while permitting the proper removal of the asbestos containing materials in a cost effective and timely manner.

- 1) A remote, large project decontamination unit will be constructed in the approximate location shown in Attachment B. The remote unit will be located within 50 feet of the building exit used for access by the asbestos abatement contractor.
- 2) The abatement contractor will utilize a designated pathway and signage per 56-7.4(c).
- 3) Two (2) additional airlocks will be installed per 56.7.5(d)(3).
- 4) The regulated work area will be established in accordance with ICR 56-7.4, including signage.
- 5) Ground floor access shall be restricted to NYSDOL certified personnel and Rochester Housing Authority Maintenance personnel in case of emergency during Phase IIA through IIC activities on a daily basis (7:00 AM 5:00 PM).
- 6) Asbestos waste shall not be allowed to accumulate in the clean room and shall be transported in covered carts to the lockable hardtop dumpster.
- 7) One additional air sample shall be collected along the designated pathway and waste route.
- 8) Removal and handling of asbestos-containing materials and asbestos contaminated materials shall be performed in accordance with all other applicable provisions of ICR 56.

Designer of Record:

NYSDOL Cert. #: 24-61NOY-SHAB

ASBESTOS, LEAD PAINT, AND PCB CAULK SURVEY REPORT

Danforth Tower East – Boiler Room 140 West Avenue Rochester, New York

Prepared For:

Rochester Housing Authority 675 W. Main Street Rochester, New York

Prepared By:

Lu Engineers 280 East Broad Street, Suite 170 Rochester, New York 14604

February 2024



ASBESTOS, LEAD PAINT, AND PCB CAULK SURVEY REPORT

Danforth Tower East – Boiler Room 140 West Avenue Rochester, New York

TABLE OF CONTENTS

1.0 INTRODUCTION AND PROJECT OVERVIEW	1
1.1 Record Review	1
2.0 SITE INSPECTIONS	1
2.1 Asbestos	1
2.2 Lead Paint	2
2.3 PCB Caulk	2
3.0 ANALYTICAL RESULTS	3
3.1 Asbestos Results	3
3.2 Lead Paint Results	4
3.3 PCB Caulk Results	4
4.0 ASBESTOS MATERIALS AND APPROXIMATE QUANTITIES	4
5.0 LIMITATIONS OF THE INVESTIGATION	5
6.0 RECOMMENDATIONS	5
6.1 Asbestos Containing Materials	5
6.2 Lead Paint	6
6.3 PCB Caulk	6
<u>ATTACHMENTS</u>	
ATTACHMENT A Licenses and Certifications	
ATTACHMENT B Sample Location Plans, Analytical Reports, and Chain of Forms	f Custody
ATTACHMENT C Asbestos Location Plans and Asbestos Inspection Summ	nary Table
ATTACHMENT D Site Photographs	,

Page 7 of 47

Asbestos, Lead Paint, and PCB Caulk Survey Danforth Tower East – Boiler Room

February 2024

24-0367

1.0 INTRODUCTION AND PROJECT OVERVIEW

Lu Engineers was retained by Rochester Housing Authority to provide an asbestos, lead paint, and PCB caulk survey of the building located at 140 West Avenue, in Rochester, New York. This survey was performed in anticipation of upcoming renovations to the building.

The asbestos, lead paint, and PCB caulk survey was conducted on January 3, 2024. The intent of this survey was to determine the presence and quantity of asbestos containing materials, lead-based paint, and PCB containing caulk. The asbestos survey was conducted in accordance with New York State Department of Labor (NYSDOL) Industrial Code Rule (ICR) 56 by certified inspectors from Lu Engineers. A copy of Lu Engineers' license and inspectors' certifications can be found in Attachment A.

1.1 Records Review

Record drawings of the building or previous surveys were not available for review prior to conducting the asbestos survey.

2.0 SITE INSPECTION

2.1 Asbestos

One of the purposes of the visual inspection was to identify homogeneous areas of suspect asbestos containing materials that exist throughout the area of inspection, as defined in the scope of work. The Asbestos Hazard Emergency Response Act (AHERA) regulations define a homogeneous area as, "... an area of surfacing material, thermal insulation material, or miscellaneous material that is uniform in color and texture." Furthermore, homogeneous areas should consist of the same age and application.

The inspectors identified homogeneous areas that were present within the building. The suspect asbestos materials were given a homogeneous identification number based on color and texture of the material. A list of homogeneous area numbers of the materials encountered is included with the Asbestos Result Table in Section 3.1.

Occupational Safety and Health Administration (OSHA) and 40 CFR 763 Subpart E – Asbestos Hazard Emergency Response Act (AHERA) bulk sampling protocols were followed.

- Three (3) samples of a homogenous surfacing material in quantities of 1,000 Square Feet (SF) or less were collected.
- Five (5) samples of a homogenous surfacing material in quantities greater than 1,000 SF but less than 5,000 SF were collected.

Asbestos, Lead Paint, and PCB Caulk Survey Danforth Tower East – Boiler Room

February 2024

- > Seven (7) samples of a homogenous surfacing material in quantities greater than 5,000 SF were collected.
- Three (3) samples of Thermal System Insulation (TSI) material were collected.
- > Two (2) samples of each miscellaneous material were collected.

The suspect asbestos containing materials were extracted using various hand tools, containerized and labeled with unique sample identification numbers. Samples were submitted to the laboratory using standard chain of custody protocols.

Paradigm Environmental Services was the New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) approved laboratory used for analysis. A copy of Paradigm's credentials is located in Attachment A.

Friable samples were analyzed using NYS ELAP Method 198.1, Polarized Light Microscopy (PLM). Non-friable organically bound (NOB) samples were analyzed using NYS ELAP Method 198.6 (PLM) and, if found to be negative, NYS ELAP Method 198.4, Transmission Electron Microscopy (TEM). All Samples were analyzed via stop positive protocols meaning that once a positive sample of a series was found, the other samples were not analyzed.

Thirty-four (34) bulk samples were collected from the building as part of this project.

The sample identification number indicated on the Bulk Sample Location Plan corresponds to the homogeneous ID numbers which are also located on the laboratory analytical report and the chain of custody forms. The Bulk Sample Location Plan, laboratory analytical report and the chain of custody forms are included in Attachment B.

2.2 Lead Paint

Lu Engineers conducted a lead-based paint inspection for this project on January 3, 2024.

A total of three (3) bulk paint samples were collected from several painted surfaces. The sample locations are indicated on the Sample Location Plans included in Attachment B. The sample number indicated on the plans corresponds to the sample numbers on the laboratory analytical report and the chain of custody which are included in Attachment B.

The samples were submitted to Paradigm Environmental Services, Inc., an ELAP-certified laboratory. A copy of Paradigm's laboratory credentials is included in Attachment A. Results of Lu Engineer's visual assessment are included in Section 3.3.

2.3 PCB Caulk

Based on our visual assessment of the building, there were no suspect PCB containing caulks identified and therefore sampled.

February 2024

3.0 ANALYTICAL RESULTS

3.1 <u>Asbestos Results</u>

As defined by the New York State Department of Labor (NYSDOL) 12 NYCRR 56, a sample is considered to be asbestos containing if it contains greater than 1% asbestos by weight based on laboratory analysis. The Occupational Safety and Health Administration (OSHA) 29 CFR 1926.1101 requires specific work practices and prohibitions if asbestos in any quantity, i.e., trace <1%, is present in potentially impacted materials.

A list of Homogeneous Areas (HA) identified for the building area surveyed is included below. The **bold** and *italicized* HA description indicates that the material is positive, based on the sample results.

Homogeneous Area No. (HA)	Description	Condition	Friability	Asbestos Content
1	Silver Paint	Intact	NF	NAD
2	Blue Paint	Intact	NF	Trace Chrysotile <1.0%
3	White Boiler Rope	Intact	NF	NAD
4	Grey Mudded Fittings/Insulation	Intact	F	Chrysotile 1.9% - 15%
5	White Pipe Covering	Intact	F	Chrysotile 2.0% - 2.9%
6	Tan Fiberglass Pipe Covering	Intact	NF	NAD
7	Orange Gasket	Intact	NF	Chrysotile 57% - 67%
8	Tan Boiler Rope	Intact	NF	NAD
9	White Cover	Intact	F	Chrysotile 11% - 15%
10	Grey Breeching	Intact	F	Chrysotile 5.6% - 25% Amosite 6.0% - 7.0%
11	White Sealer	Intact	F	NAD
12	Tan Boiler Insulation	Intact	F	NAD
13	Refractory Cement, Inside of Boiler	-	-	Note 1
14	Valve Gasket	-	-	Note 1

 ${\sf NAD-No}$ Asbestos Detected

F – Friable; NF – Non-Friable

Note 1 – Client informed on-site inspectors of the presence of this material, but it could not be accessed at this time. Material is assumed to be asbestos-containing and can be sampled during construction.

03/22/2024 Page 10 of 47 24-0367

Asbestos, Lead Paint, and PCB Caulk Survey Danforth Tower East – Boiler Room

February 2024

3.2 Lead Paint Results

According to the United States Environmental Protection Agency (EPA), paint is considered lead-based if the concentration is equal to or greater than 0.5% by weight.

According to the Occupational Safety and Health Administration (OSHA), lead means metallic lead, all inorganic lead compounds, and organic soaps with any concentrations of lead. Therefore, all samples collected are considered lead containing per OSHA standards.

Lu Engineers collected a total of three (3) bulk lead paint samples from various locations of the building. The samples were submitted to Paradigm Environmental Services, Inc., an ELAPcertified laboratory. A list of the areas sampled for this survey is included below. The **bold** and italicized description indicates that the material is positive for lead per EPA standards, based on the sample results.

Sample No.	Description	Lead Conc. (% by Wt.)
LP-1	Silver Paint	0.276
LP-2	Blue Paint	0.100
LP-3	Grey Paint	0.0320

3.3 **PCB Caulk Results**

EPA defines PCB bulk waste, "as waste derived from manufactured products containing PCBs in a non-liquid state, at any concentration where the concentration at the time of designation for disposal was > 50 ppm PCBs". Solid wastes containing 50 ppm by weight or greater are listed hazardous wastes in New York State (6 NYCRR Part 371.4(C)).

No suspect PCB caulks were identified or sampled at the time of this survey.

4.0 **ASBESTOS MATERIALS AND APPROXIMATE QUANTITIES**

Asbestos exists throughout the inspected areas. Based on the analytical results, the following table identifies the Homogeneous Areas that contain asbestos along with the material description and approximate quantity.

Homogeneous Area No. (HA)	Description	Approximate Quantity
4	Grey Mudded Fittings/Insulation	40 LF
5	White Pipe Covering	Note 1
7	Orange Gasket	4 SF
9	White Cover	745 SF

Asbestos, Lead Paint, and PCB Caulk Survey Danforth Tower East – Boiler Room

February 2024

Homogeneous Area No. (HA)	Description	Approximate Quantity
10	Grey Breeching	Note 2
13	Refractory Cement	20 SF
14	Valve Gasket	10 SF

SF = Square Feet

5.0 LIMITATIONS OF THE INVESTIGATION

This report has been prepared for the exclusive use of the client. This report relies on information supplied by the building owner, employees, tenants and other sources of information. Lu Engineers has prepared this report in accordance with generally accepted practices within the industry.

This report identifies and assesses the location, quantity, and condition of materials that were accessible and visible at the time of sampling. The condition of the suspect materials is based on the actual inspection date. The quantities indicated in the report are based on the visual inspection and are only estimates of the material present. Additional quantities may exist above ceilings, behind walls or in areas of the building beyond the scope of the survey.

This survey is not intended to be an abatement design. Per NYCRR 56, an abatement design must be completed by a certified Project Designer.

This survey is intended to be a pre-renovation survey and was limited to building materials expected to be impacted by planned boiler replacement. Asbestos containing materials are expected to remain after the current scope of work is completed.

The building was an occupied, functioning building at the time of the survey.

6.0 RECOMMENDATIONS

6.1 Asbestos Containing Materials

Asbestos containing materials have been identified as part of this assessment as shown in Section 4.0. The locations of asbestos containing materials and a summary of quantities are included in Attachment C.

In accordance with 12 NYCRR 56, no renovation or demolition work shall be commenced by any owner or agent prior to completion of asbestos abatement performed by a licensed asbestos abatement contractor. NYSDOL regulations require that the asbestos containing material that will be disturbed by the renovation or demolition be removed prior to any disturbance of the material.

LF = Linear Feet

Note 1 – Quantity is included with Grey Mudded Fittings/Insulation (HA #4) because materials are part of a non-separable system.

Note 2 – Quantity is included with White Cover (HA #9) because materials are part of a non-separable system.

Asbestos, Lead Paint, and PCB Caulk Survey Danforth Tower East – Boiler Room

February 2024

If suspect asbestos containing materials not identified in this asbestos survey report are discovered during the demolition and/or renovation process; it is required that the presence, location and quantity of newly discovered material, be conveyed within twenty-four (24) hours of discovery to the building owner or their representative. All activities must cease in the area where the presumed asbestos containing material or suspect miscellaneous ACM is found, until a licensed asbestos contractor appropriately assesses and manages the discovered materials.

6.2 <u>Lead Paint</u>

According to the United States Environmental Protection Agency (USEPA), paint is considered lead based if the concentration is equal to or greater than 0.5% by weight. The Occupational Safety and Health Administration (OSHA) Regulation in 29 CFR 1926.62 considers any amount of lead in paint to be of concern. The regulation states that the employer shall assure that no employee is exposed to lead concentrations greater than fifty micrograms per cubic meter (50 mg/m³) of air averaged over an eight hour period.

There was no lead paint identified as part of this survey.

6.3 PCB Caulk

Caulks containing 50 parts per million (ppm) by weight (on a dry weight basis for other than liquid wastes) or greater of PCBs may be listed as hazardous waste in accordance with New York State Department of Conservation regulations (6 NYCRR Part 371). PCB wastes are also regulated by EPA in the 40 CFR Part 761 regulations.

There were no PCB containing caulks identified as part of this survey.

ATTACHMENT A

License and Certifications



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK

WE ARE YOUR DOL



DIVISION OF SAFETY & HEALTH LICENSE AND CERTIFICATE UNIT. STATE OFFICE CAMPUS. BLDG. 12. ALBANY, NY 12226

ASBESTOS HANDLING LICENSE

Joseph C. Lu Engineering, P.C. 280 E. Broad Street, Suite 170, Rochester, NY, 14604

License Number: 29286

License Class: RESTRICTED
Date of Issue: 05/10/2023
Expiration Date: 05/31/2024

Duly Authorized Representative: Mitchell Smith

This license has been issued in accordance with applicable provisions of Article 30 of the Labor Law of New York State and of the New York State Codes, Rules and Regulations (12 NYCRR Part 56). It is subject to suspension or revocation for a (1) serious violation of state, federal or local laws with regard to the conduct of an asbestos project, or (2) demonstrated lack of responsibility in the conduct of any job involving asbestos or asbestos material.

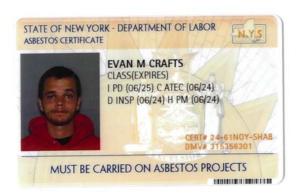
This license is valid only for the contractor named above and this license or a photocopy must be prominently displayed at the asbestos project worksite. This license verifies that all persons employed by the licensee on an asbestos project in New York State have been issued an Asbestos Certificate, appropriate for the type of work they perform, by the New York State Department of Labor.

Amy Phillips, Director

For the Commissioner of Labor



280 East Broad, Suite 170 Rochester, New York 14604





EVAN CRAFTS
I – Project Designer
C – Air Sampling Technician
D – Inspector
H – Project Monitor

03/22/2024 Page 16 of 47 **24-0367**

NEW YORK STATE DEPARTMENT OF HEALTH WADSWORTH CENTER



Expires 12:01 AM April 01, 2024 Issued April 01, 2023

NY Lab Id No: 10958

CERTIFICATE OF APPROVAL FOR LABORATORY SERVICE

Issued in accordance with and pursuant to section 502 Public Health Law of New York State

MR. STEVE DEVITO
PARADIGM ENVIRONMENTAL SERVICES INC
179 LAKE AVENUE
ROCHESTER, NY 14608

is hereby APPROVED as an Environmental Laboratory for the category ENVIRONMENTAL ANALYSES SOLID AND HAZARDOUS WASTE All approved subcategories and/or analytes are listed below:

Miscellaneous

Asbestos in Friable Material Item 198.1 of Manual

EPA 600/M4/82/020

Asbestos in Non-Friable Material-PLM Item 198.6 of Manual (NOB by PLM)

Asbestos in Non-Friable Material-TEM Item 198.4 of Manual

Lead in Dust Wipes EPA 6010C
Lead in Paint EPA 6010C

Sample Preparation Methods

EPA 3050B



Serial No.: 67573

Property of the New York State Department of Health. Certificates are valid only at the address shown and must be conspicuously posted by the laboratory. Continued accreditation depends on the laboratory's successful ongoing participation in the Program. Consumers may verify a laboratory's accreditation status online at https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/, by phone (518) 485-5570 or by email to elap@health.ny.gov.

ATTACHMENT B

Sample Location Plans, Analytical Reports and Chain of Custody Forms



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK

Page 18 of 47 03/22/2024 LEGEND ASBESTOS BULK SAMPLE LOCATION & SAMPLE NUMBER **REVISIONS** DRAWING ALTERATION Note: It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration. Lu Engineers 280 E. Broad St., Suite 170 Rochester, N.Y. 14604 (585) 385-7417 Fax: (585) 546-1634 luengineers.com TRASH ROOM LAUNDRY ROOM 9-A 9-B 9-C — 10-A 10-B 10-C 2-A LP-2 4-C 5-C DANFORTH EAST 4-A 5-A **BOILER ROOM** 6-A5-E BOILER ROOM 11-A 11-B LP-312-A 12-B 12-C ROCHESTER HOUSING AUTHORITY BOILER #2 **O**BOILER #1 **Q** 675 West Main St. 3-B Rochester, NY 14611 3-A 1-ALP-1DRAWING TITLE: **BULK SAMPLE** 4-B 5-B **LOCATION PLAN** 4-D 5-D —/ 6-B 6-C DESIGNED BY: EMC SCALE: N.T.S. DATE: 2-21-2024 DRAWN BY: EMC PROJECT No. 40609-5 CHECKED BY: MCS DRAWING No. SHEET AB-1 1 OF 1



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1.198.4 and 198.6

Client: <u>Lu Engineers</u>

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 1 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	N O B	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non- Fibrous Matrix Material %
1-A	655	Boiler #1 Boiler Room	Silver Paint	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	None Detected	100%
1-B	656	Boiler #2 Boiler Room	Silver Paint	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	None Detected	100%
2-A	657	Boiler #1 Boiler Room	Blue Paint	Inconclusive No Asbestos Detected	0%	V	Trace Chrysotile <1.0%	<1.0%	None Detected	100%
2-B	658	Boiler #2 Boiler Room	Blue Paint	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	None Detected	100%
3-A	659	Boiler #1 Seam Boiler Room	White Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Fiberglass 100%	0%
3-В	660	Boiler #2 Seam Boiler Room	White Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Fiberglass 100%	0%
4-A	661	Boiler #1 Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 3.9%	3.9%		Not Required	N/A	Mineral Wool 30%	66.1%
4-B	662	Boiler #1 Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 3.1%	3.1%		Not Required	N/A	Mineral Wool 30%	66.9%
4-C	663	Chimney Pipe Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 15%	15%		Not Required	N/A	Mineral Wool 30%	55%
4-D	664	Boiler #2 on Elbow Boiler Room	Gray Fibrous Mudded Fittings	Chrysotile 1.9%	1.9%		Not Required	N/A	Mineral Wool 30%	68.1%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

V NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/8/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: M. Lochner
Date of Analysis: 1/10/2024

Laboratory Results Approved By: Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 2 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

				PLM Asbestos	PLM	N	TEM Asbestos	TEM	PLM	Non-
				Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrou
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
									Percentage	Materia
										%
4-E	665	Boiler #2 on Elbow Boiler Room	Gray Fibrous Mudded Fittings	None Detected	0%		Not Required	N/A	Mineral Wool 30%	70%
5-A	666	Boiler #1 Boiler Room	White Fibrous Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 50%	50%
5-B	667	Boiler #1 Boiler Room	White Pipe Covering	Chrysotile 2.9%	2,9%		Not Required	N/A	Fiberglass 5%	92.1%
5-C		Chimney Pipe Boiler Room	White Pipe Covering	Chrysotile 2.0%	2.0%		Not Required	N/A	Fiberglass 5%	93%
5-D		Boiler #2 on Elbow Boiler Room	White Fibrous Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 50%	50%
5-E		Boiler #2 on Elbow Boiler Room	White Pipe Covering	None Detected	0%		Not Required	N/A	Fiberglass 1%	99%
6-A	671	Boiler #1 Boiler Room	Tan Fibrous Fiberglass Pipe Covering	Inconclusive No Asbestos Detected	0%	v	None Detected	<1.0%	Fiberglass 10%	90%
6-B	672	Boiler #2 Boiler Room	Tan Fibrous Fiberglass Pipe Covering	Inconclusive No Asbestos Detected	0%	V	None Detected	<1.0%	Fiberglass 10%	90%
7-A	673	Boiler #1 Boiler Room	Orange Fibrous Gasket	Chrysotile 67%	67%		Not Required	N/A	Cellulose 20%	13%
7-B	674	Boiler #2 Boiler Room	Orange Fibrous Gasket	Chrysotile 57%	57%		Not Required	N/A	Cellulose 30%	13%

KEY TO NOR COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and In Non-Friable Organically Bound Bulk Samples." or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush Date of Analysis: 1/8/2024 Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: M. Lochner Date of Analysis: 1/10/2024

Laboratory Results Approved By

Asbestos Technical Director or Designee

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.

Jal Kllen



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 3 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

				PLM Asbestos		N	TEM Asbestos	TEM	PLM	Non-
				Fibers Type &	Total	0	Fibers Type &	Total	Non-Asbestos	Fibrous
Client ID	Lab ID	Sampling Location	Description	Percentage	Asbestos	В	Percentage	Asbestos	Fibers Type &	Matrix
							-		Percentage	Material
									_	%
6-C	674a	Not Provided	Tan Pipe Covering	Inconclusive No Asbestos Detected	0%	v	None Detected	<1.0%	None Detected	100%
									E	
-										

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

V NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos containing.

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/8/2024

Microscope: JEOL-100CX-II #CM-156094-87

TEM Analyst: M. Lochner

Date of Analysis: 1/10/2024

Laboratory Results Approved By: Asbestos Technical Director or Designee ELAP ID No.: 10958

Fernanda Weinman

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 4 of 10

140 West Avenue, Rochester, New York

Г

Sample Date: 1/3/2024

Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	N O B	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type &	Non- Fibrou Matrix
			Josef Iption	To comage	71500505		revenuge	ASDESIOS	Percentage	Materia %
8-A	675	Boiler #1 Boiler Room	Tan Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Cellulose 100%	0%
8-B	676	Boiler #1 Boiler Room	Tan Fibrous Boiler Rope	None Detected	0%		Not Required	N/A	Cellulose 100%	0%
9-A		Boiler #2 Chimney Boiler Room	White Fibrous Cover	Chrysotile 11%	11%		Not Required	N/A	None Detected	89%
9-B		Boiler #1 Chimney Boiler Room	White Fibrous Cover	Chrysotile 13%	13%		Not Required	N/A	None Detected	87%
10-A		Boiler #2 Chimney Boiler Room	Gray Fibrous Breeching	Chrysotile 25% Amosite 6.0%	31%		Not Required	N/A	None Detected	69%
10-B		Boiler #1 Chimney Boiler Room	Gray Fibrous Breeching	Chrysotile 5.6% Amosite 7.0%	12.6%		Not Required	N/A	None Detected	87.4%
11-A	681	Boiler #1 Boiler Room	White Sealer	Inconclusive No Asbestos Detected	0%	V	None Detected	<1,0%	Fiberglass 5%	95%
11-B	682	Boiler #1 Boiler Room	White Sealer	Inconclusive No Asbestos Detected	0%	v	None Detected	<1.0%	Fiberglass 5%	95%
12-A	683	Boiler #1 Boiler Room	Tan Fibrous Boiler Insulation	None Detected	0%		Not Required	N/A	Mineral Wool 100%	0%
12-B	684	Boiler #1 Boiler Room	Tan Fibrous Boiler Insulation	None Detected	0%		Not Required	N/A	Mineral Wool 100%	0%

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

v denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/9/2024

Microscope: JEOL-100CX-H#EM-156094-87

TEM Analyst: M. Lochney Date of Analysis: 1/10/2024

Laboratory Results Approved By:
Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client: <u>Lu Engineers</u>
Location: Danforth Tower East - Boiler Replacement

Job No: 0090-24 **Page:** 5 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

Sample D	utti	1/3/2024				_				
Client ID	Lab ID	Sampling Location	Description	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	N O B	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage	Non- Fibrous Matrix Material %
9-C	684a	Not Provided	White Fibrous Cover	Chrysotile 15%	15%		Not Required	N/A	None Detected	85%
10-C	684b	Not Provided	Gray Fibrous Breeching	Chrysotile 22%	22%		Not Required	N/A	None Detected	78%
										-
KEN TO NOR		MINION 6								

KEY TO NOB COLUMN SYMBOLS

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

v NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

V denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

** Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1,198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush

Date of Analysis: 1/9/2024

Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: N/A
Date of Analysis: N/A

Laboratory Results Approved By: Asbestos Technical Director or Designee

Fernanda Weinman

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.



PLM & TEM BULK ASBESTOS ANALYSIS REPORT via NYSDOH ELAP Method 198.1,198.4 and 198.6

Client:

Lu Engineers

Job No: 0090-24

Location:

Danforth Tower East - Boiler Replacement

Page: 6 of 10

140 West Avenue, Rochester, New York

Sample Date: 1/3/2024

		Sampling Location Boiler #2 Boiler Room	Description Tan Fibrous Boiler Insulation	PLM Asbestos Fibers Type & Percentage	PLM Total Asbestos	N O B	TEM Asbestos Fibers Type & Percentage	TEM Total Asbestos	PLM Non-Asbestos Fibers Type & Percentage Mineral Wool	Non- Fibrous Matrix Material %
			Tan Fibrous Boiler	Percentage	Asbestos		Percentage	Asbestos	Fibers Type & Percentage	Matrix Material %
			Tan Fibrous Boiler			В			Percentage	Material %
12-C	685 E	3oiler #2 Boiler Room		None Detected	0%		Not Required	N/A		%
12-C	685 B	Boiler #2 Boiler Room		None Detected	0%		Not Required	N/A		
12-C	685 B	3oiler #2 Boiler Room		None Detected	0%		Not Required	N/A	Mineral Wool	
									100%	0,0

No Symbol in the NOB column denotes sample analyzed by ELAP Method 198.1 (PLM).

√ NOB (non-friable organically bound)denotes material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

v denotes material analyzed by ELAP Method 198.6 (PLM) per NYSDOH. This Method does not remove vermiculite and may underestimate the level of asbestos present in a sample containing greater than 10% vermiculite.

denotes friable material analyzed by ELAP Method 198.6 (PLM) and 198.4 (TEM) as noted.

X denotes sample prepped only by ELAP Method 198.6.

* Polarized-light microscopy is not consistently reliable in detecting asbestos in floor coverings and similar non-friable organically bound materials.

Quantitative transmission electron microscopy is currently the only method that can be used to determine if this material can be considered or treated as non-asbestos

PLM Bulk Asbestos Analysis by New York State Department of Health, ELAP Method 198.1, 198.4 and 198.6 ("Polarized Light Microscopy and Transmission Electron Microscopy Methods for Identifying and Quantitating Asbestos in Bulk Samples and in Non-Friable Organically Bound Bulk Samples.") or EPA 600/M4-82-020 per 40 CFR 763 (NVLAP Lab Code 200530-0),

Lab Code 200530-0 for PLM Analysis

Microscope: Olympus BH-2 #211874

PLM Analyst: T. Bush Date of Analysis: 1/4/2024 Microscope: JEOL-100CX-II #EM-156094-87

TEM Analyst: N/A Date of Analysis: N/A

Laboratory Results Approved By: Asbestos Technical Director or Designee

ELAP ID No.: 10958

Paradigm Environmental Services, Inc. is not responsible for the data supplied by an independent inspector. National Institute of Standards and Technology Accreditation requirements mandate that this report must not be reproduced except in full without the approval of the laboratory. This PLM report relates ONLY to the items tested. This report must not be used to claim product endorsement by NVLAP or any agency of the U.S. Government. Quality control data (including 95% confidence limits and/or laboratory and analysts' precision) is available upon request.

Lu Engineers

Bulk Sample Chain of Custody

		P=0000	ENVIRONMENTAL . TRANSPORTATION . CIVIL
Project Name: Danforth Tower East - Boiler Replacement	Last – Boiler Replacement	Lu Project # 40609-56	
Site Address: 140 West Avenue, R	140 West Avenue, Rochester, New York	Laboratory Name:	Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address:	179 Lake Avenue
	A METAL A CALL OF STANK		Rochester, New York
Lu Engineers	DIN SELAF FLM/ I EM	Turn Around Time 1-10	Comments:
280 East Broad Street, Suite 170	FLM Only	☐ Immediate ☐ 12 HR	HR Stop Positive
MUCHESICI, IN 14004		24 HP 18 HP	
Email: msmith@luengineers.com, sdavis@luengineers.com,	s@luengineers.com,		· · · · · · · · · · · · · · · · · · ·
ecrafts(a)uengineers.com, hsmith(a)uengineers.com	ineers.com		Day

L.					Î
	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES	
569	1-A	Boiler #1, Boiler Room	Silver Paint		Y
959	1-B	Boiler #2, Boiler Room	Silver Paint		Т
(57	2-A	Boiler #1, Boiler Room	Blue Paint		i
<u>\$8</u>	2-B	Boiler #2, Boiler Room	Blue Paint		T
659	3-A	Boiler #1 Seam, Boiler Room	White Boiler Rope		ī
geo geo	3-B	Boiler #2 Seam, Boiler Room	White Boiler Rope		
199	4-A	Boiler #1, Boiler Room	Grey Mudded Fittings		1
799	4-B	Boiler #1, Boiler Room	Grey Mudded Fittings		Ī
699	4-C	Chimney Pipe, Boiler Room	Grey Mudded Fittings		
per	4-D	Boiler #2 on Elbow, Boiler Room	Grey Mudded Fittings		4-03

Date Sampled: 1-3-14 Inspector: 6.0 / H.S

Relinquished By H. frnden

Received By Gmeyon bungers

Date/Time 1.3.24 16:03 Date/Time 1 - 3 - 14

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Bulk Sample Chain of Custody

Bulk Sample Chain of Custod	of Custody	4-27 KZ-0400	Lu Engineers Environmental Transportation Civil
Project Name: Danforth Tower East - Boiler Replacement	st – Boiler Replacement	Lu Project # 40609-56	5010
Site Address: 140 West Avenue, Rochester, New York	thester, New York	Laboratory Name: Parac	Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address: 179	179 Lake Avenue
ļ	NIVE EL AB BLAGTEN	Roc	Rochester, New York
Lu Engineers	DIMONIA	Turn Around Time 1-16	Comments:
280 East Broad Street, Suite 170 Rochester, NV 14604	☐ TEM Only	☐ Immediate ☐ 12 HR	Stop Positive
	·		の、上
Email: msmith@luengineers.com, sdavis@luengineers.com, ecrafts@luengineers.com, hsmith@luengineers.com	luengineers.com, eers.com		

					E ^c
	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES	
665	4-E	Boiler #2 on Elbow, Boiler Room	Grey Mudded Fittings		Pa
999	5-A	Boiler #1, Boiler Room	White Pipe Covering		ge 26
(39	5-B	Boiler #1, Boiler Room	White Pipe Covering		of 4
899	5-C	Chimney Pipe, Boiler Room	White Pipe Covering		7
699	5-D	Boiler #2 on Elbow, Boiler Room	White Pipe Covering		-
B	5-E	Boiler #2 on Elbow, Boiler Room	White Pipe Covering		
K9	6-A	Boiler #1, Boiler Room	Tan Fiberglass Pipe Covering		
719	6-B	Boiler #2, Boiler Room	Tan Fiberglass Pipe Covering		
673	7-A	Boiler #1, Boiler Room	Orange Gasket		2
K.S	a 7-B	Boiler #2, Boiler Room	Orange Gasket		4-03
A hc9	14 6C				367

Date Sampled: 1 - 3 - 14

Inspector: 6.C / H.S

Relinquished By M. Frouden

Received By Gwern Bugge

16:03

Date/Time 1.3.24

Date/Time i - 3 - 14

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Bulk Sample Chain of Custody

Bulk Sample Chain of Custody	of Custody	4-0E 42-0500	LU Endingineers ENVIRONMENTAL - TRANSPORTATION - CIVIL
Project Name: Danforth Tower East – Boiler Replacement	st – Boiler Replacement	Lu Project # 40609-56	R. C.
Site Address: 140 West Avenue, Rochester, New York	chester, New York	Laboratory Name: Para	Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address: 179	179 Lake Avenue
	X NIVS EL AB BINA/TEN	Ro	Rochester, New York
Lu Engineers	DIN SELAF FLIM/TEM	Turn Around Time 1-10	Comments:
280 East Broad Street, Suite 170 Dochestor NV 14604	TEM Only	☐ Immediate ☐ 12 HR	Stop Positive
Mochesies, IVI 14004			, 'A
Email: <u>msmith@luengineers.com</u> , <u>sdavis@luengineers.com</u> , <u>ecrafts@luengineers.com</u> , <u>hsmith@luengineers.com</u>	luengineers.com, eers.com		

-	FIELD ID	SAMPLE LOCATION	MATERIAL	NOTES	
629	8-A	Boiler #1, Boiler Room	Tan Boiler Rope		Pa
9/9	8-B	Boiler #1, Boiler Room	Tan Boiler Rope		ge 27
673	9-A	Boiler #2 Chimney, Boiler Room	White Cover		7 of 4
849	9-B	Boiler #1 Chimney, Boiler Room	White Cover		7
R3	10-A	Boiler #2 Chimney, Boiler Room	Grey Breeching		
689	10-B	Boiler #1 Chimney, Boiler Room	Grey Breeching		
(89)	N-11	Boner # 1 , Boner Room	White spaver		
789	8-11	77	W D		
589	11 - A		TON BOILER INJUIGATION		2
£89€	11 - 8	3	W II		4-03
684 B	1 9-1 10-1 Date Sampled: 1 - 3 - 14		Relinquished By H. FmJAn	Date/Time 1 · 3 · 14	<u>3</u> 67

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com

Received By Gwerry

Inspector: 6.c / H.5

Date/Time 1-3-24 16303

Bulk Sample Chain of Custody

Bulk Sample Chain of Custod	of Custody	hdoh 162-0600	Lu Engineers ENVIRONMENTAL - TRANSPORTATION - CIVIL
Project Name: Danforth East Tower - Boiler Replacement	r – Boiler Replacement	Lu Project # 40609-56	2018c)
Site Address: 140 West Avenue, Rochester, New York	chester, New York	Laboratory Name: Para	Laboratory Name: Paradigm Environmental Services
Results to:	Sample Type	Laboratory Address: 179	179 Lake Avenue
	X NVS EL AD DI M/TEN	Roc	Rochester, New York
Lu Engineers	DIMONIA	Turn Around Time [-(0	Comments:
200 East Broad Street, Suite 170 Rochester, NV 14604		☐ Immediate ☐ 12 HR	
	(74 HB	
Email: msmith@luengineers.com, sdavis@luengineers.com, ecrafts@luengineers.com, hsmith@luengineers.com	luengineers.com, eers.com		

						2	4-03
NOTES							
MATERIAL	Tan Boiler Insulation		2		-		
SAMPLE LOCATION	Boiler #2, Boiler Room						
FIELD ID	12-C						

Date Sampled: 1 - 3 - 1014

Inspector: 6.C / H.S

Relinquished By H. Fmuan

Date/Time

Received By Guerran Amazan

Date/Time 1324

280 East Broad Street, Suite 170, Rochester, NY 14604 | Ph 585.385.7417 | Fax 585.546.1634 | Iuengineers.com



Analytical Report For

Lu Engineers, Inc.

For Lab Project ID

240051

Referencing

40609-56

Prepared

Monday, January 8, 2024

Any noncompliant QC parameters or other notes impacting data interpretation are flagged or documented on the final report or are noted below:

Reduced sample size used for Lead analysis due to limited sample volume. Kindly refer to Chain of Custody Supplement for the affected samples.

Emily Farmen

Certifies that this report has been approved by the Technical Director or Designee

179 Lake Avenue • Rochester, NY 14608 • (585) 647-2530 • Fax (585) 647-3311 • ELAP ID# 10958



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-1 Silver

Lab Sample ID: 240051-01 **Date Sampled:** 1/3/2024 9:00

Matrix: Paint Date Received 1/3/2024

Lead

<u>Analyte</u> <u>Result</u> <u>Units</u> <u>Qualifier</u> <u>Date Analyzed</u>

Lead **0.276** % 1/5/2024 10:42

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 **Data File:** 240105A



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-2 Blue

Lab Sample ID: 240051-02 **Date Sampled:** 1/3/2024 9:00

Matrix: Paint Date Received 1/3/2024

Lead

Analyte Result Units Qualifier Date Analyzed

Lead **0.100** % 1/5/2024 10:45

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 Data File: 240105A



Lab Project ID: 240051

Client: <u>Lu Engineers, Inc.</u>

Project Reference: 40609-56

Sample Identifier: LP-3 Blue-Grey

Lab Sample ID: 240051-03 **Date Sampled:** 1/3/2024 10:00

Matrix: Paint Date Received 1/3/2024

Lead

Analyte Result Units Qualifier Date Analyzed

Lead **0.0320** % 1/5/2024 10:48

Method Reference(s): EPA 6010C

EPA 3050B

Preparation Date: 1/4/2024 Data File: 240105A



Analytical Report Appendix

The reported results relate only to the samples as they have been received by the laboratory.

Each page of this document is part of a multipage report. This document may not be reproduced except in its entirety, without the prior consent of Paradigm Environmental Services, Inc.

All soil/sludge samples have been reported on a dry weight basis, unless qualified "reported as received". Other solids are reported as received.

Low level Volatiles blank reports for soil/solid matrix are based on a nominal 5 gram weight. Sample results and reporting limits are based on actual weight, which may be more or less than 5 grams.

The Chain of Custody provides additional information, including compliance with sample condition requirements upon receipt. Sample condition requirements are defined under the 2003 NELAC Standard, sections 5.5.8.3.1 and 5.5.8.3.2.

NYSDOH ELAP does not certify for all parameters. Paradigm Environmental Services or the indicated subcontracted laboratory does hold certification for all analytes where certification is offered by ELAP unless otherwise specified. Aliquots separated for certain tests, such as TCLP, are indicated on the Chain of Custody and final reports with an "A" suffix.

Data qualifiers are used, when necessary, to provide additional information about the data. This information may be communicated as a flag or as text at the bottom of the report. Please refer to the following list of analyte-specific, frequently used data flags and their meaning:

- "<" = Analyzed for but not detected at or above the quantitation limit.
- "E" = Result has been estimated, calibration limit exceeded.
- "H" = Denotes a parameter analyzed outside of holding time.
- "Z" = See case narrative.
- "D" = Sample, Laboratory Control Sample, or Matrix Spike Duplicate results above Relative Percent Difference limit.
- "M" = Matrix spike recoveries outside QC limits. Matrix bias indicated.
- "B" = Method blank contained trace levels of analyte. Refer to included method blank report.
- "J" = Result estimated between the quantitation limit and half the quantitation limit.
- "L" = Laboratory Control Sample recovery outside accepted QC limits.
- "P" = Concentration differs by more than 40% between the primary and secondary analytical columns.
- "NC" = Not calculable. Applicable to RPD if sample or duplicate result is non-detect or estimated (see primary report for data flags). Applicable to MS if sample is greater or equal to ten times the spike added. Applicable to sample surrogates or MS if sample dilution is 10x or higher.
- "*" = Indicates any recoveries outside associated acceptance windows. Surrogate outliers in samples are presumed matrix effects. LCS demonstrates method compliance unless otherwise noted.
- "(1)" = Indicates data from primary column used for QC calculation.
- "A" = denotes a parameter for which ELAP does not offer approval as part of their laboratory certification program.
- "F" = denotes a parameter for which Paradigm does not carry certification, the results for which should therefore only be used where ELAP certification is not required, such as personal exposure assessment.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

GENERAL TERMS AND CONDITIONS LABORATORY SERVICES

24-0367

These Terms and Conditions embody the whole agreement of the parties in the absence of a signed and executed contract between the Laboratory (LAB) and Client. They shall supersede all previous communications, representations, or agreements, either verbal or written, between the parties. The LAB specifically rejects all additional, inconsistent, or conflicting terms, whether printed or otherwise set forth in any purchase order or other communication from the Client to the LAB. The invalidity or unenforceability in whole or in part of any provision, tern or condition hereof shall not affect in any way the validity or enforceability of the remainder of the Terms and Conditions. No waiver by LAB of any provision, term, or condition hereof or of any breach by or obligation of the Client hereunder shall constitute a waiver of such provision, term, or condition on any other occasion or a waiver of any other breach by or obligation of the Client. This agreement shall be administered and interpreted under the laws of the state which services are procured.

Warranty.

Recognizing that the nature of many samples is unknown and that some may contain potentially hazardous components, LAB warrants only that it will perform testing services, obtain findings, and prepare reports in accordance with generally accepted analytical laboratory principles and practices at the time of performance of services. LAB makes no other warranty, express or implied.

Scope and Compensation. LAB agrees to perform the services described in the chain of custody to which these terms and conditions are attached. Unless the parties agree in writing to the contrary, the duties of LAB shall not be construed to exceed the services specifically described. LAB wi use LAB default method for all tests unless specified otherwise on the Work Order.

Payment terms are net 30 days from the date of invoice. All overdue payments are subject to an interest charge of one and one-half percent (1-1/2%) per month or a portion thereof. Client shall also be responsible for costs of collection, including payment of reasonable attorney fees if such expense is incurred. The prices, unless stated, do not include any sale, use or other taxes. Such taxes will be added to invoice prices when required.

Prices.

Compensation for services performed will be based on the current Lab Analytical Fee Schedule or on quotations agreed to in writing by the parties. Turnaround time based charges are determined from the time of resolution of all work order questions. Testimony, court appearances or data compilation for legal action will be charged separately. Evaluation and reporting of initial screening runs may incur additional fees.

Limitations of Liability.

In the event of any error, omission, or other professional negligence, the sole and exclusive responsibility of LAB shall be to reperform the deficient work at its own expense and LAB shall have no other liability whatsoever. All claims shall be deemed waived unless made in writing and received by LAB within ninety (90) days following completion of services.

LAB shall have no liability, obligation, or responsibility of any kind for losses, costs, expenses, or other damages (including but not limited to any special, direct, incidental or consequential damages) with respect to LAB's services or results.

All results provided by LAB are strictly for the use of its clients and LAB is in no way responsible for the use of such results by clients or third parties. All reports should be considered in their entirety, and LAB is not responsible for the separation, detachment, or other use of any portion of these reports. Client may not assign the lab report without the written consent of the LAB.

Client covenants and agrees, at its/his/her sole expense, to indemnify, protect, defend, and save harmless the LAB from and against any and all damages, losses, liabilities, obligations, penalties, claims, litigation, demands, defenses, judgments, suits, actions, proceedings, costs, disbursements and/or expenses (including, without limitation attorneys' and experts' fees and disbursements) of any kind whatsoever which may at any time be imposed upon, incurred by or asserted or awarded against client relating to, resulting from or arising out of (a) the breach of this agreement by this client, (b) the negligence of the client in handling, delivering or disclosing any hazardous substance, (c) the violation of the Client of any applicable law, (d) non-compliance by the Client with any

environmental permit or (e) a material misrepresentation in disclosing the materials to be tested.

Hazard Disclosure.

Client represents and warrants that any sample delivered to LAB will be preceded or accompanied by complete written disclosure of the presence of any hazardous substances known or suspected by Client. Client further warrants that any sample containing any hazardous substance that is to be delivered to LAB will be packaged, labeled, transported, and delivered properly and in accordance with applicable laws.

Sample Handling.

Prior to LAB's acceptance of any sample (or after any revocation of acceptance), the entire risk of loss or of damage to such sample remains with Client. Samples are accepted when receipt is acknowledged on chain of custody documentation. In no event will LAB have any responsibility for the action or inaction of any carrier shipping or delivering any sample to or from LAB premises. Client authorizes LAB to proceed with the analysis of samples as received by the laboratory, recognizing that any samples not in compliance with all current DOH-ELAP-NELAP requirements for containers, preservation or holding time will be noted as such on the final report.

Disposal of hazardous waste samples is the responsibility of the Client. If the Client does not wish such samples returned, LAB may add storage and disposal fees to the final invoice. Maximum storage time for samples is 30 days after completion of analysis unless modified by applicable state or federal laws. Client will be required to give the LAB written instructions concerning disposal of these samples.

LAB reserves the absolute right, exercisable at any time, to refuse to receive delivery of, refuse to accept, or revoke acceptance of any sample, which, in the sole judgment of LAB (a) is of unsuitable volume, (b) may be or become unsuitable for or may pose a risk in handling, transport, or processing for any health, safety, environmental or other reason whether or not due to the presence in the sample of any hazardous substance, and whether or not such presence has been disclosed to LAB by Client or (c) if the condition or sample date make the sample unsuitable for analysis.

Legal Responsibility. LAB is solely responsible for performance of this contract, and no affiliated company, director, officer, employee, or agent shall have any legal responsibility hereunder, whether in contract or tort including negligence.

Assignment.

LAB may assign its performance obligations under this contract to other parties, as it deems necessary. LAB shall disclose to Client any assignee (subcontractor) by ELAP ID # on the submitted final report.

Force Majeure.

LAB shall have no responsibility or liability to the Client for any failure or delay in performance by LAB, which results in whole or in part from any cause or circumstance beyond the reasonable control of LAB. Such causes and circumstances shall include, but not limited to, acts of God, acts or orders of any government authority, strikes or other labor disputes, natural disasters, accidents, wars, civil disturbances, difficulties or delays in transportation, mail or delivery services, inability to obtain sufficient services or supplies from LAB's usual suppliers, or any other cause beyond LAB's reasonable control.

Law.

This contract shall be continued under the laws of the State of New York without regard to its conflicts of laws provision.

This report is part of a multipage document and should only be evaluated in its entirety. The Chain of Custody provides additional sample information, including compliance with the sample condition requirements upon receipt.

10 + 2

CHAIN OF CUSTODY

	03/	22120	124	Π,	ه ا م		10	<u></u>	- I	ī		age 4	30	01	4/				T	۱ -		^~	<u>_</u>	,
Comments:	Comments:	Comments:	Comments:	Receipt Parameter NE	**LAB USE ONLY BELOW THIS	10	9	8	7	6	5	+	3	2	1 1/3/2024	DATE	y money and		PROJECT NAME/SITE NAME:	2	4-	03	-	
Temperature	Holding Time:	Preservation:	Container Type:	Receipt Parameter	ONLY BEL								1000	•	09 80	TIME	56 05		E NAME:		-		MESSAL SERVICE	
ure:	me:	on:	Туре:	rameter	OW THIS LI											m & O D E O C							N IVE	<u> </u>
				717471142	LINE**								2	3	¥	מ א א מ		COMMENTS:	ATTN:	PHONE:	спу: В	ADDRESS	COMPANY:	
	∀			NELAC Compliance	Meleke								1P-3	4-2	1-d	SAMPLE			Steve Davis	385-7417	ROCHESTER	3: 280 East Broa	Y: LU ENGINEERS	
<u> </u>	Z	Z		npliance												SAMPLE LOCATION/FIELD ID		msmith@luengineers.com, sdavis@luengineers.com		FAX: 546-1634	STATE: NY	ADDRESS: 280 East Broad Street, Suite 170	EERS	KEPORT IO:
Received @ Lab By	Received By	H. Manager By	EVAN CRAFTS Sampled By											~ e	PAINT	× – ਸ਼ ⊣ ≽ ॾ		sdavis@lue			ZIP: 14604			
(NIM)	£		AFIS		TORNAL SALES								」と	- 8	- ×	ZMEZCZ ZMZ-> - ZOOO W	REQ	ngineers.co	ATTN:	PHONE:	сіту:	ADDRESS:	COMPANY:	
Y																		m					Same	INVOIC
113124 Date/Time	Date/Time	1 3 1014 Date/Time	1 3 2024 Date/Time	•	E 911 800												UESTED ANALYSIS			FAX:	STATE:			INVOICE TO:
1530		15:50	09 so -10 ac										SIME - GREY	Brine	SILVEE	72 EE	THE STATE OF THE S	Quot			ZIP: TURNAF	14	LAB PR	
į	P.I.F.	Î	Total Cost:		I SANS							9	193a			REMARKS		Quotation #	2		TURNAROUND TIME: (WORKING DAYS)	40051		
			St.											C		PARADIGM LAB SAMPLE NUMBER			O1	STD 0	RKING DAYS)	40609-56	CLIENT PROJECT #:	
													<i>ω</i>	0 2	0	/BER	18			OTHER	Pag	ge 7	of 8	8





Chain of Custody Supplement

Client:	LU	Completed by:	Glenn Pezzylo
Lab Project ID:	240051	Date:	1/3/24
	Sample Cone Per NELAC/EL	dition Requirements AP 210/241/242/243/244	
Condition	NELAC compliance with the san Yes	nple condition requirements u No	pon receipt N/A
Container Type Comments			
Transferred to method- compliant container			*
Headspace (<1 mL) Comments			
Preservation Comments			
Chlorine Absent (<0.10 ppm per test strip) Comments			
Holding Time Comments			
Temperature Comments			
Compliant Sample Quantity/Type Comments	e	* * *	

ATTACHMENT C

Asbestos Location Plans and Asbestos Inspection Summary Table



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

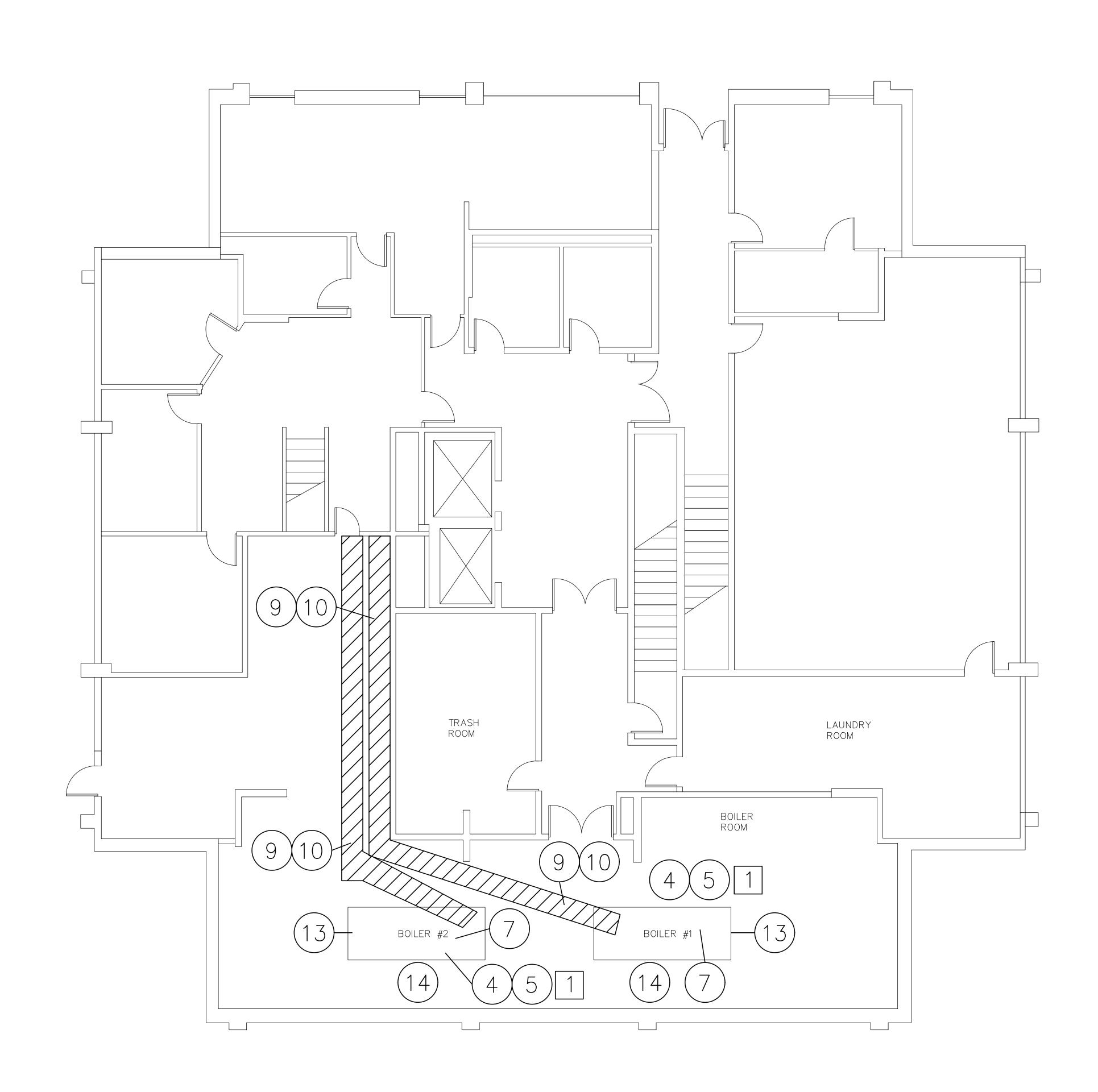
DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK 03/22/2024 Page 38 of 47 24-0367

LEGEND

- APPROXIMATE LOCATION OF ASBESTOS CONTAINING GREY MUDDED FITTINGS/INSULATION
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING WHITE PIPE COVERING
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING ORANGE GASKET
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING WHITE COVER
- APPROXIMATE LOCATION OF ASBESTOS CONTAINING GREY BREECHING
 - APPROXIMATE LOCATION OF ASSUMED ASBESTOS
 CONTAINING REFRACTORY
 CEMENT
 - APPROXIMATE LOCATION OF ASBESTOS CONTAINING VALVE GASKET

SPECIAL NOTES

ASBESTOS CONTAINING PIPE
COVERING AND MUDDED
FITTINGS EXIST ABOVE AND
BESIDE THE BOILERS



DATE REVISIONS BY

Note: It is a violation of law for any person, unless they are acting under the direction of a licensed professional engineer, architect, landscape architect or land surveyor to alter an item in any way. If an item bearing the stamp of a licensed professional is altered, the altering engineer, architect, landscape architect or land surveyor shall stamp the document and include the notation "altered by" followed by their signature, the date of such alteration, and a specific description of the alteration.



280 E. Broad St., Suite 170 Rochester, N.Y. 14604 (585) 385-7417 Fax: (585) 546-1634 luengineers.com

PROJECT:

DANFORTH EAST BOILER ROOM

CLIENT:

ROCHESTER HOUSING AUTHORITY

675 West Main St. Rochester, NY 14611

DRAWING TITLE:

ASBESTOS LOCATION PLAN

DESIGNED BY: EMC SCALE: N.T.S.

DRAWN BY: EMC DATE: 2-21-2024

CHECKED BY: MCS PROJECT No. 40609-56

SHEET DRAWING No.

1 OF 1 AL-1

ADDNAME

Asbestos Inspection Summary Table Danforth Tower East - Boiler Room 140 West Avenue, Rochester, New York

Homogeneous Area Description	Homogeneous Area ID No.	Floor & Location	Tested or Assumed		Approx. Quantity
Grey Mudded Fittings	4	Boiler Room on Piping	Tested	Y Total	40 LF 40 LF
White Pipe Covering	5	Boiler Room on Piping	Tested	Y Total	40 LF 40 LF
Orange Gasket	7	Boiler Room on Piping	Tested	Y Total	4 SF 4 SF
White Cover	9	Boiler Room on Chimney, Ductwork	Tested	Y Total	745 SF 745 SF
Grey Breeching	10	Boiler Room on Chimney, Ductwork	Tested	Y Total	745 SF 745 SF
Refractory Cement	13	Boiler Room inside of Boiler	Tested	Assumed Total	20 SF 20 SF
Valve Gasket	14	Boiler Room on Piping	Tested	Assumed Total	10 SF 10 SF



ATTACHMENT D

Site Photographs



ASBESTOS, LEAD PAINT, and PCB CAULK SURVEY

DANFORTH TOWER EAST – BOILER ROOM 140 WEST AVENUE ROCHESTER, NEW YORK Danforth East Boiler Room



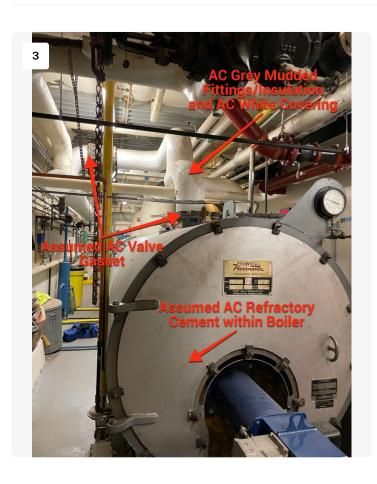
Project: Danforth East Date: 1/3/2024, 9:23am Creator: Hayden Smith



Project: Danforth East Date: 1/3/2024, 9:23am Creator: Hayden Smith

Danforth East Boiler Room

Danforth East



Project: Danforth East Date: 1/3/2024, 9:24am Creator: Hayden Smith



Project: Danforth East Date: 12/5/2023, 11:05am Creator: Mitch Smith

Mitch Smith
Lu Engineers
3/21/2024 | 4 Photos



Site Specific Variance Request

24-0367 3/21/2024

Danforth East Boiler Room

Danforth East Boiler Room Layout

Danforth East Boiler Room Danforth East

Site Specific Variance Request



View looking at Boilers #1 and #2 along rear wall.

Project: Danforth East Date: 10/11/2023, 10:53am Creator: Mitch Smith



View looking along rear wall adjacent to Boiler #2.

Project: Danforth East Date: 12/5/2023, 11:07am Creator: Mitch Smith



Equipment adjacent to Boiler #2

Project: Danforth East Date: 2/21/2024, 8:51am Creator: Evan Crafts

View looking along area adjacent to Boilers #1 and #2.

Project: Danforth East Date: 10/11/2023, 10:53am Creator: Mitch Smith

