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www.redcedarconsulting.net

May 20, 2020

Mr. Michael Andrick Ingham County Land Bank 3024 Turner St. Lansing, MI 48906

RE: Asbestos Containing Material and Hazardous Materials Inspection

135 S Magnolia Ave., Lansing, MI 48912

Parcel ID: 33-01-01-14-304-051

Dear Mr. Andrick:

Red Cedar Consulting has completed an asbestos-containing material (ACM) inspection at 135 S Magnolia Ave., Lansing, Michigan (Subject Property). This inspection was completed at the request of the Ingham County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

### **SUBJECT PROPERTY**

The Subject Property is comprised of a .09-acre residential parcel which contains an approximate 598 square foot residential building (the Building) constructed in 1914. The Building was constructed on a concrete basement with one aboveground floor. The exterior walls of the Building were finished with vinyl siding while the roof was sealed with asphalt shingles. The Building can be further divided into a front porch, living room, dining room, kitchen, bath, and two bedrooms.

### **VISUAL INSPECTION AND SAMPLING**

### **Asbestos Containing Materials Inspection**

Aaron Paquet of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on April 15, 2020 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Shingle
- Vapor Barrier
- Felt Paper
- Fiberboard
- Concrete
- Linoleum
- 9"x9" Vinyl Tile
- Drywall & Compound
- Glazing
- Plaster
- Texture

Red Cedar staff collected forty-three samples of suspect ACBM separated into twenty distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the forty-three samples is included as Attachment A.

### **Hazardous Materials Inspection**

On April 15, 2020 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

### INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, forty-three samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results. A Site Diagram was prepared which provides the general building layout and sample locations and is included as Attachment B. Photos of each different type of ACM identified during this inspection are included in Attachment C and copies of the Asbestos Inspectors certifications are included as Attachment D.

ACM, as defined by the USEPA NESHAP is "any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy".

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in "visible emissions" which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as "material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM's are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing's, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

### **Presumed Asbestos Containing Material**

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be "rebutted" following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

### Friable ACM's

A window glazing sample collected from a window in the W Bedroom was found to contain up to 2% asbestos following analysis. The assessment to quantify the extent of this material identified windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- E Bedroom (1 window 28" wide x 38" tall)
- W Bedroom (1 window 36" wide x 48" tall)
- Basement (3 windows 32" wide x 24" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

• Basement (misc. HVAC wrap on Old Ductwork, 1 sq. ft.)

### **Category I ACM**

A resilient floor covering (Brown 9x9 VFT) located within the Living Room and W Bedroom was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 325 sq. ft. of this material within the Building.

### **Category II ACM**

No Category II non-friable ACM was identified during the completion of this inspection.

### **RECOMMENDATIONS**

### **Asbestos Containing Materials**

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

• Basement (misc. HVAC wrap on Old Ductwork, 1 sq. ft.)

Friable asbestos containing window glazing was identified on windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- E Bedroom (1 window 28" wide x 38" tall)
- W Bedroom (1 window 36" wide x 48" tall)
- Basement (3 windows 32" wide x 24" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (Brown 9x9 VFT) is a non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

### **Hazardous Materials**

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Thermostat (1)
- 5 Gallon Container Misc. Paint (7)
- 1 Gallon Container Misc. Paint (3)
- Quart Container Misc. Paint (6)
- Automobile Tire (1)

### **REGULATORY REQUIREMENTS**

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

**NESHAP** Asbestos Program Department of Environmental Quality

Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program

State of Michigan Phone: 517-284-7680

Email: asbestos@michigan.gov

### **DISCLAIMER**

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Ingham County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,

**Red Cedar Consulting** 

Aaron Paquet

Michigan/EPA Certified Asbestos Building Inspector

(A30955, Exp. 9-5-2020)

# Red Cedar Consulting

# Attachment A APEX Research Laboratory Analytical Results

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Fiberglass - 10%

Cellulose - 50%

Fiberglass - 10% Other - 90%

Other - 50%

Other - 90%

Lab ID #: 89582 - 01 Cust. #:

MA-HM-01A

Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: of

Lab ID #:

89582 - 01a

Cust. #: MA-HM-01A Material: Tar Paper

Location:

Appearance: black, fibrous, homogenous

Layer: of

Lab ID #:

89582 - 02

Cust. #: MA-HM-01B Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582
Date Collected: 04/15/20
Date Received: 04/20/20
Date Analyzed: 04/22/20
Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 50% Other - 50%

Cellulose - 50%

Cellulose - 30%

Other - 70%

Other - 50%

Lab ID #: 89582 - 03 Cust. #: MA-HM-02A

Vapor Barrier

Material: Location:

Appearance: brown,fibrous,homogenous

Layer: 1 of

Lab ID #: 89582 - 04

Cust. #: MA-HM-02B Material: Vapor Barrier

Location:

Appearance: brown, fibrous, homogenous

Layer: 1 of 1

Lab ID #: 89582 - 05 Cust. #: MA-HM-03A

Material: Felt

Location:

Appearance: black, fibrous, homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582

Date Collected: 04/15/20

Date Received: 04/20/20

Date Analyzed: 04/22/20

Date Reported: 04/23/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 30%

Cellulose - 40%

Cellulose - 40%

Other - 60%

Other - 60%

Other - 70%

Lab ID #: Cust. #:

89582 - 06

MA-HM-03B

Material: Felt

Location:

Appearance: black, fibrous, homogenous

Layer: 1 of

Lab ID #:

89582 - 07

Cust. #:

MA-HM-04A

Material:

Siding

Location:

Appearance: black, fibrous, homogenous

Layer:

1 of

Lab ID #:

89582 - 08

Cust. #:

MA-HM-04B

Material:

Siding

Location:

Appearance: black,fibrous,homogenous

Layer:

1 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582
Date Collected: 04/15/20
Date Received: 04/20/20
Date Analyzed: 04/22/20
Date Reported: 04/23/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 80%

Cellulose - 80%

Other - 20%

Other - 100%

Other - 20%

Lab ID #: 89582 - 09
Cust. #: MA-HM-05A
Material: Fiberbrick Siding

Location:

Appearance: brown,fibrous,homogenous

Layer: 1 of 1

Lab ID #: 89582 - 10 Cust. #: MA-HM-05B

Material: Fiberbrick Siding

Location:

Appearance: brown, fibrous, homogenous

Layer: 1 of 1

Lab ID #: 89582 - 11

Cust. #: MA-HM-06A Material: Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582

Date Collected: 04/15/20

Date Received: 04/20/20

Date Analyzed: 04/22/20

Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 89582 - 12

MA-HM-06B Concrete

Material: Location:

Cust. #:

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89582 - 13

Cust. #: MA-HM-07A Material: Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89582 - 14

Cust. #: MA-HM-07B Material: Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89582 - 15 Cust. #:

MA-HM-08A Linoleum

Material: Location:

Appearance: beige, fibrous, nonhomogenous

Layer: of

Lab ID #: 89582 - 15a

Cust. #: MA-HM-08A

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

of Layer:

Lab ID #: 89582 - 15b

Cust. #: MA-HM-08A

Material: Tile

Location:

Appearance: brown, fibrous, homogenous

Layer: of

Asbestos Present: NO

Cellulose - 15%

Other - 85%

Asbestos Present: NO

Other - 100%

Other - 95%

Asbestos Present: **YES** Chrysotile - 5%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



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Date Collected: 04/15/20
Date Received: 04/20/20
Date Analyzed: 04/22/20
Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89582 - 15c

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Other - 100%

Cellulose - 15%

Other - 85%

Other - 100%

Cust. #: MA-HM-08A Material: Mastic

Location:

Appearance: black,nonfibrous,homogenous

Layer: 4 of

Lab ID #:

89582 - 16

Cust. #:

MA-HM-08B Linoleum

Material:

Location:

Appearance: beige, fibrous, homogenous

Layer:

of 4

Lab ID #:

89582 - 16a

Cust. #:

MA-HM-08B

Location:

Material: Glue

A ....

Appearance: yellow,nonfibrous,homogenous

Layer:

2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582
Date Collected: 04/15/20
Date Received: 04/20/20
Date Analyzed: 04/22/20
Date Reported: 04/23/20

Other - 100%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 8
Cust. #: 1

89582 - 16b MA-HM-08B Asbestos Present: NOT ANALYZED

Material: Tile

Location: Appearance:

Layer: 3 of 4

Lab ID #:

89582 - 16c

Cust. #:

MA-HM-08B

Material:

Mastic

Location:

Appearance: black,nonfibrous,homogenous

Layer:

4 of 4

Lab ID #:

89582 - 17

Cust. #: MA-HM-09A Material: Vinyl Floor Tile

Location:

A ....

Appearance: beige,nonfibrous,homogenous

Layer:

of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To:

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 89582 - 17a Cust. #:

MA-HM-07A

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer:

89582 - 18 Lab ID #:

Cust. #: MA-HM-09B Material: Vinyl Floor Tile

Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

Lab ID #: 89582 - 18a

MA-HM-09B Cust. #:

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

2 of Layer:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Fiberglass - 10%

Fiberglass - 10%

Fiberglass - 10%

Other - 90%

Other - 90%

Other - 90%

Lab ID #: 89582 - 19 Cust. #: MA-HM-10A Material:

Linoleum

Location:

Appearance: brown, fibrous, nonhomogenous

Layer: of

Lab ID #: 89582 - 20

Cust. #: MA-HM-10B Material: Linoleum

Location:

Appearance: brown,fibrous,nonhomogenous

of Layer:

Lab ID #: 89582 - 21

MA-HM-11A Cust. #:

Material: Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 20%

Fiberglass - 10%

Cellulose - 20%

Other - 80%

Other - 90%

Other - 80%

Lab ID #: 89582 - 21a Cust. #: MA-HM-11A Material:

Linoleum

Location:

Appearance: beige, fibrous, nonhomogenous

Layer: of

89582 - 22 Lab ID #:

Cust. #: MA-HM-11B Material: Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Lab ID #: 89582 - 22a

MA-HM-11B Cust. #: Material: Linoleum

Location:

Appearance: beige, fibrous, nonhomogenous

Layer: 2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582

Date Collected: 04/15/20

Date Received: 04/20/20

Date Analyzed: 04/22/20

Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 15%

Cellulose - 15%

Cellulose - 20% Other - 80%

Other - 85%

Other - 85%

Lab ID #: 89582 - 23 Cust. #: MA-HM-12A

MA-HM-12A Linoleum

Material: Location:

Appearance: beige, fibrous, nonhomogenous

Layer: 1 of

Lab ID #: 89582 - 24

Cust. #: MA-HM-12B Material: Linoleum

Location:

Appearance: beige, fibrous, nonhomogenous

Layer: 1 of

Lab ID #: 89582 - 25

Cust. #: MA-HM-13A Material: Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



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Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582

Date Collected: 04/15/20

Date Received: 04/20/20

Date Analyzed: 04/22/20

Date Reported: 04/23/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Cellulose - 20%

Other - 80%

Other - 100%

Lab ID #: 89582 - 25a Cust. #: MA-HM-13A

MA-HM-13A Joint Compound

Material:

John Compound

Location:

Appearance: white, nonfibrous, homogenous

Layer: 2 of 2

Lab ID #: 8

89582 - 26

Cust. #:

MA-HM-13B

Material:

Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer:

of

Lab ID #: 89

89582 - 26a

Cust. #:
Material:

MA-HM-13B Joint Compound

Location:

Location.

Appearance: white, nonfibrous, homogenous

Layer:

2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Other - 98%

Sample Information

Asbestos Type/Percent

Asbestos Present: YES

Chrysotile - 2%

Asbestos Present:

NOT ANALYZED

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89582 - 27 Cust. #:

MA-HM-14A

Material: Glaze

Location:

Appearance: beige, fibrous, homogenous

Layer: of

89582 - 28 Lab ID #:

Cust. #: MA-HM-14B

Material: Glaze

Location: Appearance:

Layer: 1 of

Lab ID #: 89582 - 29

MA-HM-15A Cust. #:

Material: Glaze

Location:

Appearance: beige,nonfibrous,homogenous

Layer: of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Other - 100%

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 89582 - 30 Cust. #:

MA-HM-15B

Material: Glaze

Location:

Appearance: beige, nonfibrous, homogenous

Layer:

of

Lab ID #:

89582 - 31

Cust. #:

MA-HM-16A

Material:

Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

Lab ID #:

89582 - 32

Cust. #:

MA-HM-16B

Material: Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89582 - 33 Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Cellulose - 15% Other - 85%

Cellulose - 15%

Cellulose - 15% Other - 85%

Other - 85%

Cust. #: MA-HM-17A Material:

Shingle

Appearance: black, fibrous, nonhomogenous

Layer:

Location:

of

Lab ID #:

89582 - 33a

Cust. #:

MA-HM-17A Shingle

Material:

Location:

Appearance: black, fibrous, nonhomogenous

Layer: of

Lab ID #: 89582 - 34

Cust. #: MA-HM-17B

Material: Shingle

Location:

Appearance: black, fibrous, nonhomogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89582

Date Collected: 04/15/20

Date Received: 04/20/20

Date Analyzed: 04/22/20

Date Reported: 04/23/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 15%

Other - 85%

Other - 100%

Other - 100%

Lab ID #: 89582 - 34a Cust. #: MA-HM-17

MA-HM-17B

Material: Shingle

Location:

Appearance: black, fibrous, nonhomogenous

Layer: 2 of 2

Lab ID #: 8

89582 - 35

Cust. #: MA-HS-01A Material: Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: 1 of 3

Lab ID #: 89582 - 35a

Cust. #: MA-HS-01A Material: Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer: 2 of 3

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Cellulose - 2%

Hair - 2%

Other - 96%

Other - 100%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89582 - 35b Cust. #: MA-HS-01A Material:

Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer:

89582 - 36 Lab ID #:

Cust. #: MA-HS-01B Material: Texture

Location:

Appearance: beige,nonfibrous,homogenous

of Layer:

Lab ID #: 89582 - 36a

MA-HS-01B Cust. #: Material: Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer: 2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Non-Asbestos Material

Lab ID #: 89582 - 36b Cust. #: MA-HS-01B

Material: Base Coat Location:

Appearance: grey,fibrous,homogenous

Layer:

Asbestos Present: NO

Asbestos Present: **NO** 

Other - 100%

Other - 100%

Cellulose - 2%

Hair - 1% Other - 92%

Vermiculite - 5%

89582 - 37 Lab ID #: Cust. #:

MA-HS-01C

Material: Texture Location:

Appearance: beige,nonfibrous,homogenous

of Layer:

Lab ID #: 89582 - 37a

MA-HS-01C Cust. #: Material: Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer: 2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Cellulose - 2%

Hair - 2%

Other - 96%

Other - 100%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89582 - 37b Cust. #: MA-HS-01C Material: Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer:

89582 - 38 Lab ID #:

Cust. #: MA-HS-02A Material: Texture

Location:

Appearance: beige,nonfibrous,homogenous

of Layer:

Lab ID #: 89582 - 39

MA-HS-02B Cust. #: Material: Texture

Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 135 S Magnolia Ave. Project #:

Report To:
Mr. Aaron Paquet
Red Cedar Consulting
P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89582
Date Collected: 04/15/20
Date Received: 04/20/20
Date Analyzed: 04/22/20
Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Cellulose - 2%

Other - 98%

Lab ID #: 89582 - 40

MA-HS-02C Texture

Material: Location:

Cust. #:

Appearance: beige,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89582 - 41

Cust. #: MA-HS-03A Material: Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: 1 of 2

Lab ID #: 89582 - 41a

Cust. #: MA-HS-03A Material: Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer: 2 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 135 S Magnolia Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89582 Date Collected: 04/15/20 Date Received: 04/20/20 Date Analyzed: 04/22/20 Date Reported: 04/23/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Non-Asbestos Material

Other - 100%

Hair - 2%

Other - 98%

Lab ID #: 89582 - 42 Cust. #:

MA-HS-03B

Material: Texture

Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

Lab ID #:

89582 - 43

Cust. #: MA-HS-03C

Material: Plaster

Location:

Appearance: beige, fibrous, homogenous

of Layer: 1

Lab ID #:

Cust. #:

Material:

Location: Appearance:

Layer:

Asbestos Present:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



Apex #

# APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990



Fax: 734-449-9991 E-mail: apexresearch@chartermi.net

Client Name:	lient Name: Red Cedar Consulting			Date of S	urvey:	Date of Survey: 4-15-20	Lab Use Only Log-In
Address:	PO Box 13216			Project:	1355	Project: 1355-may notia Ave.	
City, St., Zip:	Sity, St., Zip: Lansing, MI 48901			Project #		)	
hone: (888) 4	· · ·	(888) 448-8739	-8739	Contact P	erson:	Contact Person: Aaron Paquet	ı
Turn Aro	[urn Around Times: (Circle One)	le One)	PLM EPA 6	00, PC all sa	mples wi	PLM EPA 600, PC all samples with a detection of <5% ACM.	sulting.net 5% ACM.
		Asbestos: Bulk	Bulk	Wipe	Point Count	lt PCM	
tush 24 hour							
		Lead:	Bulk	Wipe	Air	Paint Soil	THE PERSON NAMED IN COLUMN
8 hour 7/2 hour			Ë	E	0,0		
<i>)</i>	1	Mold:	Bulk	lape	BIOSIS	Other Via	Viable
Ather:	(III) All Samples	TEM:	AHERA 7400_	Bulk/NOB	8	EPA Level II	

Volume Area Results													Received by: APP 12 A COUNTY	
Material/Location	Assimt Shire	7.1	Hasar Barrie	- 2	Fedt Paper	n iii	Fiberlas Siding	), 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	OSA Fiber bride Sight	7-3	Silewalk Concorter	(	Relinquished by:	
Client ID#	MA-11111-0114	1 013	470	07.5	450	03.5		243	160	05%	t/20 A		Received by:	
Lab ID#													Relinquished by	777

89582

APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

Fax: 734-449-9991 E-mail: apexresearch@chartermi.net Lab Use Only Log-In

Date of Survey: 47620 Fax: (888) 448-8739 Red Cedar Consulting City, St., Zip: Lansing, MI 48901 PO Box 13216 (888)449-4566 Client Name: Address: Phone:

Project: 1855, magnolog Ave. Contact Person: Aaron Paquet Project #:

Report

labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM. Point Count Turn Around Times: (Circle One)

Wipe Wipe Tape Asbestos: Bulk Bulk Bulk Lead: Mold: 24 hour 72 hour 48 hour Rush

(TTP) All Samples

Other:

Other EPA Level II Bulk/NOB

BioSIS

Viable

Soil

Paint

Air

AHERA 7400 TEM:

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
	MA-14M-66B	5,3e welle Commbe			
	410	good Console			
	510	11			
	H80	Rivae Londoem Brown gxg UFT	UFT		
	5180	•			
	OR A	yeller baxie upt			
	760				
	₩C1	Dark Brown Low lan-			
	5101				
	A) I	Tur Linden -mL			
	5117 A	1.			

Date: 4/11/20 Received by: Date: 4-17 /20 Relinquished by:

Relinquished by:

Received by: APR 2 0 2020

# APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

E-mail: apexresearch@chartermi.net

Lab Use Only Log-In

Fax: 734-449-9991

Client Nam	Client Name: Red Cedar Consulting	Date of Survey: 4.6.20	Lab Us Log-In
Address:	PO Box 13216	Project: (35 5. Magnolia Ac. Report	Report
City, St., Z	City, St., Zip: Lansing, MI 48901	Project #:	
Phone: (888) 449-4566	88)449-4566 Fax: (888) 448-8739	Contact Person: Aaron Paquet	

Paguet

	Turn Around Times.			מש איזם	יני ברי ברי ברי ברי	lak Tak	odata@redced	labdata@redcedarconsulting.net
			(Circle One)		יין דר מדד ממ	וווים בס אדרזו	מ מתרמטרוטו.	OI SOS ACM.
			Aspestos:	Asbestos: Bulk x	Wipe	Point Count	PCM	
Rush	24 hour							
			Lead: Bulk	Bulk	Wipe	Air	Paint	Soil
48 hour	(72 hour)							
			Mold:	Bulk	Tape	BioSIS	Other	Viable
Other:	(TTP)	(TTP) All Samples						
	)		TEM:	TEM: AHERA 7400	Bulk/NOB		EPA Level II	

Lient ID #Material/LocationVolumeAreaResults	MA-14M-12H Brave Lheline		134 Dry worth & Cornerson .	14A Colation	<b>)</b>	150 metal Willan Glazy	77 75	,	Į	16A Gastmet Consiste
Client ID#	MA -14m- 12H	128		42.	(48	DSJ	15/2		1/9/	787
Lab ID#										

Received by: Date : 4-1712 Relinquished by:

Relinquished by:

Date:

Received by: APR 2 0 2020

Date: APEX FESSAFON

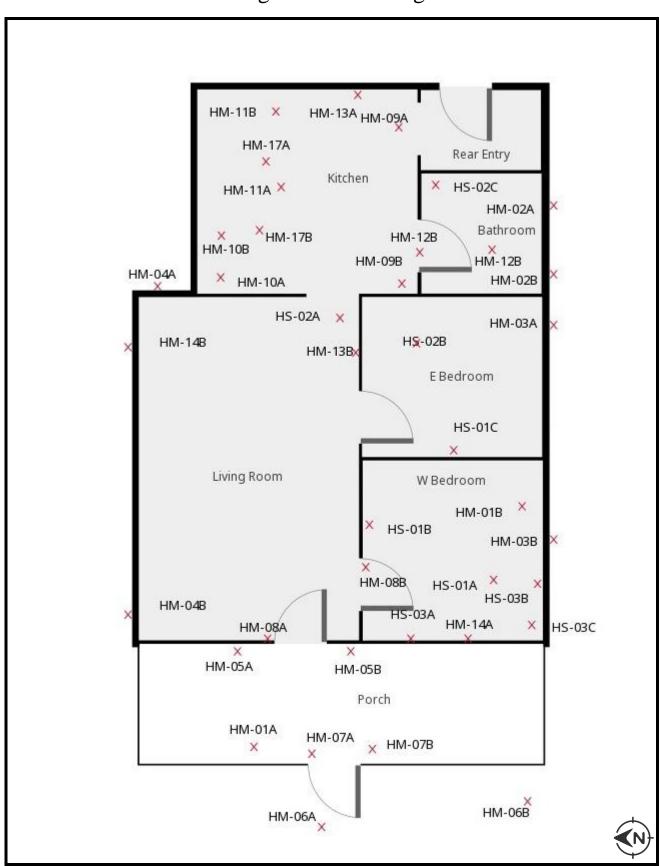
विव में जर्म

Lab ID#	Client ID #	Material/Location	Volume	Area	Results
	MA-4m- 178	lestelm Shope	,		
	MA-45-01A	Plast & woll board			
	810	) com			
	200	<b>→</b>			
	B40	Testure	•		
	810				
	260	7			
	634	Suit Plaston			
	058	4			
The second secon	200	· →			
		\hat{\chi}			00000
Relinquished by:	Received by:	: Relinquished by:		Received by: APR % () CUCU	26208
Date : 4-17-20	Date:	7.17-20 Date:		Date:	Date: MOSK RESEARCH

# Red Cedar Consulting

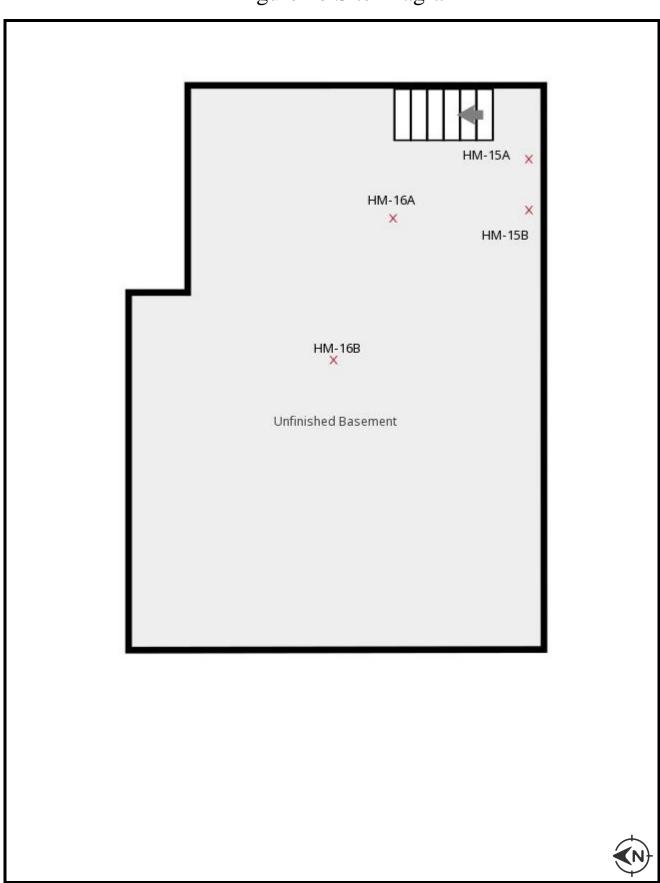
Attachment B
Site Diagrams

Figure 1a Site Diagram



Note: Figure created by Red Cedar Consulting

Figure 1b Site Diagram



# Red Cedar Consulting

# Attachment C ACM Photos



PHOTO: 1 BY: A. Paquet

**SUBJECT:** View of front of the Property.



PHOTO: 2 BY: A. Paquet

**SUBJECT:** Brown 9x9 VFT



PHOTO: 3 BY: A. Paquet

**SUBJECT:** Basement HVAC Wrap

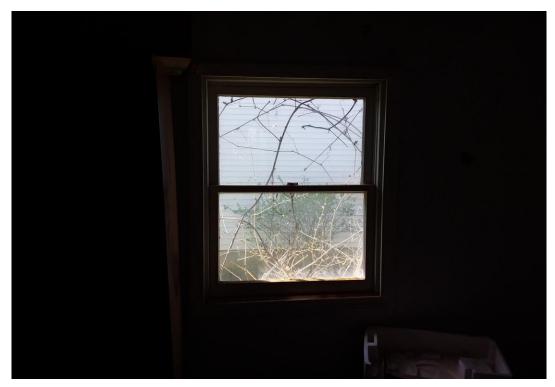
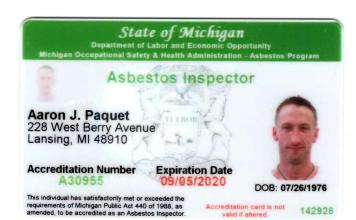


PHOTO: 4 BY: A. Paquet

**SUBJECT:** Typical Window/Glazing

# Red Cedar Consulting

Attachment D
Inspector Certifications/ID's







# Red Cedar Consulting

## **Tables**

 $Table\ 1 - Summary\ of\ Hazardous\ Materials,\ 135\ S\ Magnolia\ Ave.,\ Lansing,\ Michigan$ 

Hazardous Materials Description and Location						
Location	Material Description	Quantity				
Living Room	Thermostat	1				
Kitchen	5 Gallon Container Misc. Paint	1				
Kitchen	1 Gallon Container Misc. Paint	1				
Basement	5 Gallon Container Misc. Paint	6				
Basement	1 Gallon Container Misc. Paint	2				
Basement	Quart Container Misc. Paint	6				
Exterior	Automobile Tire	1				

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 135 S Magnolia Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
MA-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	1,025 sq. ft.
MA-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	
MA-HM-02A	Vapor Barrier	Yes	M	Category II	ND	Exterior	650 sq. ft.
MA-HM-02B	Vapor Barrier	Yes	M	Category II	ND	Exterior	
MA-HM-03A	Felt Paper	Yes	M	Category II	ND	Exterior	450 sq. ft.
MA-HM-03B	Felt Paper	Yes	M	Category II	ND	Exterior	
MA-HM-04A	Fiberlap Siding	Yes	M	Category II	ND	Exterior	450 sq. ft.
MA-HM-04B	Fiberlap Siding	Yes	M	Category II	ND	Exterior	
MA-HM-05A	Fiberbrick Siding	Yes	M	Category II	ND	Exterior	250 sq. ft.
MA-HM-05B	Fiberbrick Siding	Yes	M	Category Ii	ND	Exterior	
MA-HM-06A	Sidewalk Concrete	No	M	Category II	ND	Exterior	300 sq. ft.
MA-HM-06B	Sidewalk Concrete	No	M	Category II	ND	Exterior	
MA-HM-07A	Porch Concrete	No	M	Category II	ND	Exterior	175 sq. ft.
MA-HM-07B	Porch Concrete	No	M	Category II	ND	Exterior	
MA-HM-08A	Beige Linoleum/Brown 9x9 VFT	No	M	Category I	ND/ND/5% CH/ND	Living	325 sq. ft.
MA-HM-08B	Beige Linoleum/Brown 9x9 VFT	No	M	Category I	ND/ND/NA/ND	W Bedroom	ACM
MA-HM-09A	Yellow 12x12 VFT	No	M	Category I	ND/ND	Kitchen	120 sq. ft.
MA-HM-09B	Yellow 12x12 VFT	No	M	Category I	ND/ND	Kitchen	
MA-HM-10A	Dark Brown Linoleum	No	M	Category I	ND	Kitchen	30 sq. ft.
MA-HM-10B	Dark Brown Linoleum	No	M	Category I	ND	Kitchen	
MA-HM-11A	Tan Linoleum ML	No	M	Category I	ND/ND	Kitchen	25 sq. ft.
MA-HM-11B	Tan Linoleum ML	No	M	Category I	ND/ND	Kitchen	
MA-HM-12A	Lite Brown Linoleum	No	M	Category I	ND	Bath	25 sq. ft.
MA-HM-12B	Lite Brown Linoleum	No	M	Category I	ND	Bath	
MA-HM-13A	Drywall & Compound	No	M	Category II	ND/ND	Kitchen Ceiling	950 sq. ft.
MA-HM-13B	Drywall & Compound	No	M	Category II	ND/ND	Living Wall	
MA-HM-14A	Glazing	Yes	M	Category II	2% CH	W Bedroom	5 Windows

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 135 S Magnolia Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
MA-HM-14B	Glazing	Yes	M	Category II	NA	Basement	ACM
MA-HM-15A	Metal Window Glazing	Yes	M	Category II	ND	Basement	1 Window
MA-HM-15B	Metal Window Glazing	Yes	M	Category II	ND	Basement	
MA-HM-16A	Basement Concrete	No	M	Category II	ND	Basement	600 sq. ft.
MA-HM-16B	Basement Concrete	No	M	Category II	ND	Basement	
MA-HM-17A	Kitchen Shingle	No	М	Category I	ND/ND	Exterior	175 sq. ft.
MA-HM-17B	Kitchen Shingle	No	M	Category I	ND/ND	Exterior	
MA-HS-01A	Plaster & Wallboard	No	S	Category II	ND/ND/ND	W Bedroom Ceiling	650 sq. ft.
MA-HS-01B	Plaster & Wallboard	No	S	Category II	ND/ND/ND	W Bedroom Wall	
MA-HS-01C	Plaster & Wallboard	No	S	Category II	ND/ND/ND	E Bedroom Wall	
MA-HS-02A	Texture	No	S	Category II	ND/ND/ND	Living Ceiling	300 sq. ft.
MA-HS-02B	Texture	No	S	Category II	ND/ND/ND	E Bedroom Ceiling	
MA-HS-02C	Texture	No	S	Category II	ND	Bath Ceiling	
MA-HS-03A	Sand Plaster	No	S	Category II	ND/ND	W Bedroom Wall	350 sq. ft.
MA-HS-03B	Sand Plaster	No	S	Category II	ND	W Bedroom Wall	
MA-HS-03C	Sand Plaster	No	S	Category II	ND	W Bedroom Wall	

#### **Notes:**

Material Types Abbreviations

 $\begin{array}{lll} M &= \mbox{Miscellaneous building material} & \mbox{NQ} &= \mbox{Not quantified} \\ TSI &= \mbox{Thermal System Insulation} & \mbox{NA} &= \mbox{Not Analyzed} \\ \end{array}$ 

S = Surfacing Material ND = Not detected. Laboratory result is less than 1 % asbestos

PC = Point Count Analysis lin. ft. = linear feet CH = Chrysotile Asbestos sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 135 S Magnolia Ave., Lansing, Michigan

Asbestos Containing Material Description and Location						
Location	Material Description		Condition	Material Type	Approx. Quantity	
Basement (misc. HVAC wrap on Old Ductwork, 1 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	1 sq. ft.	

#### **Notes:**

#### Material Types

M = Miscellaneous building material TSI = Thermal System Insulation

S = Surfacing Material

#### **Abbreviations**

lin. ft. = linear feet sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 135 S Magnolia Ave., Lansing, Michigan

Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	Approx. Quantity
Living	Beige Linoleum/Brown 9x9 VFT		No	225 sq. ft.
W Bedroom	Brown 9x9 VFT		No	100 sq. ft.
		Total		325 sq. ft.
Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	<b>Approx. Quantity</b>
Basement (misc. HVAC wrap on Old Ductwork, 1 sq. ft.)	HVAC Duct Wrap		Yes	1 sq. ft.
		Total		1 sq. ft.
Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	Approx. Quantity
E Bedroom (1 window 28" wide x 38" tall)	Glazing		Yes	1 Window
W Bedroom (1 window 36" wide x 48" tall)	Glazing		Yes	1 Window
Basement (3 windows 32" wide x 24" tall)	Glazing		Yes	3 Windows
		Total		5 Windows

#### **Notes:**

#### **Abbreviations**

lin. ft. = linear feet sq. ft. = square feet

**Shaded/Bolded** = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216 Lansing, MI 48901 Phone: 888.449.4566 Fax: 888.448.8739 www.redcedarconsulting.net

May 13, 2020

Mr. Michael Andrick Ingham County Land Bank 3024 Turner St. Lansing, MI 48906

RE: Asbestos Containing Material and Hazardous Materials Inspection

1414 Ballard St. Lansing, MI 48906 Parcel ID: 33-01-01-10-157-001

Dear Mr. Andrick:

Red Cedar Consulting has completed an asbestos-containing material (ACM) inspection at 1414 Ballard St., Lansing, Michigan (Subject Property). This inspection was completed at the request of the Ingham County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

#### **SUBJECT PROPERTY**

The Subject Property is comprised of a .05-acre residential parcel which contains an approximate 919 square foot residential building (the Building) constructed in 1916. The Building was constructed on a concrete basement with two aboveground floors. The exterior walls of the Building were finished with Stucco while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bath, and rear entry on the first floor while the second floor contains two bedrooms and a bathroom.

#### **VISUAL INSPECTION AND SAMPLING**

#### **Asbestos Containing Materials Inspection**

Aaron Paquet of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on April 17, 2020 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Shingle
- Concrete
- 12"x12" Vinyl Tile
- Linoleum
- 2x2 Ceiling Tile
- Drywall & Compound
- Glazing
- Stucco
- Plaster
- Texture

Red Cedar staff collected forty-five samples of suspect ACBM separated into nineteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the forty-five samples is included as Attachment A.

#### **Hazardous Materials Inspection**

On April 17, 2020 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

#### INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, forty-five samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results. A Site Diagram was prepared which provides the general building layout and sample locations and is included as Attachment B. Photos of each different type of ACM identified during this inspection are included in Attachment C and copies of the Asbestos Inspectors certifications are included as Attachment D.

ACM, as defined by the USEPA NESHAP is "any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy".

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in "visible emissions" which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as "material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM's are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing's, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

#### **Presumed Asbestos Containing Material**

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be "rebutted" following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

#### Friable ACM's

A window glazing sample collected from a window in the Living Room was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (2 windows 40" wide x 60" tall)
- Living (1 window 40" wide x 24" tall)
- Dining (1 window 40" wide x 60" tall)
- Dining (1 window 40" wide x 24" tall)
- Kitchen (1 window 34" wide x 24" tall)
- Bath (1 window 24" wide x 28" tall)
- Rear Entry (1 window 40" wide x 20" tall)
- 2nd Fl. W Bedroom (2 windows 26" wide x 40" tall)
- 2nd Fl. N Bedroom (2 windows 28" wide x 58" tall)
- 2nd Fl. N Bedroom (1 window 26" wide x 40" tall)
- Basement (2 windows 30" wide x 12" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Kitchen (1 register, 15 sq. ft.)
- 2<sup>nd</sup> Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2<sup>nd</sup> Fl. W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

#### **Category I ACM**

Asphalt roof samples collected during the completion of the inspection were found to contain up to 10% Chrysotile asbestos. The assessment to quantify the extent of this material identified 200 sq. ft. of asphalt roofing materials (covered by a newer roof system) on the Building.

Flashing samples collected during the completion of the inspection were found to contain up to 10% Chrysotile asbestos. The assessment to quantify the extent of this material identified 50 sq. ft. of flashing materials on the Building.

#### **Category II ACM**

No Category II non-friable ACM was identified during the completion of this inspection.

#### RECOMMENDATIONS

#### **Asbestos Containing Materials**

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 15 sq. ft.)
- 2<sup>nd</sup> Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2<sup>nd</sup> Fl. W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Friable asbestos containing window glazing was identified on windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Living (2 windows 40" wide x 60" tall)
- Living (1 window 40" wide x 24" tall)
- Dining (1 window 40" wide x 60" tall)
- Dining (1 window 40" wide x 24" tall)
- Kitchen (1 window 34" wide x 24" tall)
- Bath (1 window 24" wide x 28" tall)
- Rear Entry (1 window 40" wide x 20" tall)
- 2nd Fl. W Bedroom (2 windows 26" wide x 40" tall)
- 2nd Fl. N Bedroom (2 windows 28" wide x 58" tall)
- 2nd Fl. N Bedroom (1 window 26" wide x 40" tall)
- Basement (2 windows 30" wide x 12" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I roofing materials and Flashings are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

#### **Hazardous Materials**

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

- Television (6)
- Smoke Detector (1)

#### REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program
Department of Environmental Quality
Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program State of Michigan Phone: 517-284-7680

Email: asbestos@michigan.gov

#### **DISCLAIMER**

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Ingham County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,

Red Cedar Consulting

(Laron Paguet

Aaron Paquet

Michigan/EPA Certified Asbestos Building Inspector (A30955, Exp. 9-5-2020)

# Red Cedar Consulting

# Attachment A APEX Research Laboratory Analytical Results

#### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Fiberglass - 10%

Fiberglass - 10%

Cellulose - 35% Other - 65%

Other - 90%

Other - 90%

Lab ID #: 89599 - 01 Cust. #: BS-HM-01A Material:

Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: of

Lab ID #: 89599 - 01a

Cust. #: BS-HM-01A Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: of

Lab ID #: 89599 - 01b

Cust. #: BS-HM-01A Material: Tar Paper

Location:

Appearance: black, fibrous, homogenous

Layer: 3 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

## Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Fiberglass - 10%

Fiberglass - 10%

Cellulose - 35% Other - 65%

Other - 90%

Other - 90%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 02 Cust. #: BS-HM-01B Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: 1 of 3

Lab ID #: 89

89599 - 02a

Cust. #: BS-HM-01B Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: 2 of 3

Lab ID #: 89599 - 02b Cust. #: BS-HM-01B

Material: Tar Paper

Location:

Appearance: black, fibrous, homogenous

Layer: 3 of 3

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

#### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20

Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Date Reported:

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89599 - 03

Asbestos Present: NO

Asbestos Present: YES

Asbestos Present: **NO** 

Chrysotile - 10%

Fiberglass - 10%

Cellulose - 20%

Fiberglass - 10% Other - 90%

Other - 70%

Cust. #: BS-HM-02A Material: Shingle 20000 11000100 110

Other - 90%

Location:

Appearance: black,fibrous,homogenous

Layer: 1

of 2

Lab ID #: 89

89599 - 03a

Cust. #:

BS-HM-02A

Material: Tar

Location:

Appearance: black, fibrous, nonhomogenous

Layer: 2

 $2 ext{ of } 2$ 

Lab ID #: 89599 - 04

Cust. #:

BS-HM-02B

Material: Shingle

Location:

Appearance: black, fibrous, homogenous

Layer: 1

of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Lab ID #: 89599 - 04a Cust. #: BS-HM-02B Asbestos Present: NOT ANALYZED

Material: Tar Location: Appearance:

Layer: 2 of

Lab ID #: 89599 - 05

Cust. #: BS-HM-03A Material: Concrete Location: Front Porch

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

Lab ID #: 89599 - 06

Cust. #: BS-HM-03B Material: Concrete Location: Front Porch

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 89599 - 07 Cust. #: BS-HM-04A

BS-HM-04A Concrete

Material: Concrete Location: Side Porch

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89599 - 08

Cust. #: BS-HM-04B Material: Concrete Location: Side Porch

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

Lab ID #: 89599 - 09

Cust. #: BS-HM-05A

Material: Tile

Location:

Appearance: green,nonfibrous,homogenous

Layer: 1 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89599 - 09a

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Other - 100%

Other - 100%

Other - 100%

Cust. #: BS-HM-05a Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

Lab ID #: 895

89599 - 10

Cust. #: BS-HM-05B

Material: Tile

Location:

Appearance: green,nonfibrous,homogenous

Layer: 1 of 2

Lab ID #: 89599 - 10a

Cust. #: BS-HM-05B

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer: 2 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

## Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 11

Asbestos Present: NO

Other - 100%

Other - 100%

Other - 100%

BS-HM-06A Material: Tile

Cust. #:

Location:

Appearance: brown, nonfibrous, homogenous

Layer:

89599 - 11a Lab ID #:

Cust. #: BS-HM-06A

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

of Layer:

Lab ID #: 89599 - 12

Cust. #: BS-HM-06B

Material: Tile

Location:

Appearance: brown,nonfibrous,homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89599 - 12a Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Other - 100%

Other - 100%

Other - 100%

Cust. #: BS-HM-06B Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer:

Lab ID #: 89599 - 13

Cust. #: BS-HM-07A

Material: Tile

Location:

Appearance: blue,nonfibrous,homogenous

Layer: of

Lab ID #: 89599 - 13a

BS-HM-07A Cust. #:

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

2 of Layer:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Lab ID #: 89599 - 14 Cust. #:

BS-HM-07B

Material: Tile

Location:

Appearance: blue,nonfibrous,homogenous

Layer: of

Lab ID #: 89599 - 14a

Cust. #: BS-HM-07B

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

of Layer:

Lab ID #: 89599 - 15

BS-HM-08A Cust. #: Material: Linoleum

Location:

Layer: of Non-Asbestos Material

Asbestos Present: NO Other - 100%

Asbestos Present: NO

Other - 100%

Asbestos Present: **NO** 

Cellulose - 15% Fiberglass - 10%

Other - 75%

Appearance: yellow,fibrous,nonhomogenous

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 15%

Fiberglass - 10%

Mineral Wool - 75%

Mineral Wool - 75%

Other - 25%

Other - 75%

Other - 25%

Lab ID #: 8
Cust. #: B

89599 - 16 BS-HM-08B

Material: Li

Linoleum

Location:

Appearance: yellow,fibrous,nonhomogenous

Layer:

of 1

Lab ID #:

89599 - 17

Cust. #: Material:

BS-HM-09A Ceiling Tile

Location:

Appearance: white, fibrous, homogenous

Layer:

1 of

Lab ID #:

89599 - 18

Cust. #:

BS-HM-09B Ceiling Tile

Material: Location:

Location.

Appearance: white, fibrous, homogenous

Layer:

1 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Cellulose - 20%

Other - 80%

Other - 100%

Cellulose - 20% Other - 80%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 19 Cust. #: BS-HM-10A Material:

Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

89599 - 19a Lab ID #:

Cust. #: BS-HM-10A Material: Joint Compound

Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

Lab ID #: 89599 - 20

Cust. #: BS-HM-10B Drywall Material:

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Other - 100%

Cellulose - 15%

Fiberglass - 10%

Other - 75%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 20a Cust. #:

BS-HM-10B Joint Compound

Material: Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

Lab ID #:

89599 - 21 Cust. #: BS-HM-11A

Material: Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Lab ID #: 89599 - 21a

BS-HM-11A Cust. #:

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

2 of Layer:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

#### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Cellulose - 15%

Fiberglass - 10%

Other - 75%

Other - 100%

Cellulose - 20% Other - 80%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 22 Cust. #: BS-HM-11B Material: Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Lab ID #: 89599 - 22a

Cust. #: BS-HM-11B

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

of Layer:

Lab ID #: 89599 - 23 Cust. #: BS-HM-12A

Drywall Material:

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 05/06/20 Date Reported:

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89599 - 23a Cust. #: BS-HM-12A

Asbestos Present: **NO** Chrysotile - 0.5%

Cellulose - 2% Other - 97.5%

Cellulose - 20%

Other - 80%

Material: Joint Compound

Location:

Appearance: beige, fibrous, homogenous

Layer: of POINT COUNT RESULT

Asbestos Present: NO

Lab ID #: 89599 - 24 Cust. #: BS-HM-12B Material:

Drywall

Location:

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Lab ID #: 89599 - 24a Cust. #: BS-HM-12B Material: Joint Compound

Asbestos Present: **NO** Chrysotile - Trace

Cellulose - 2% Other - 97.5%

POINT COUNT RESULT

Appearance: beige, fibrous, homogenous Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



#### Test Method, Polarized Light Microscopy (PLM)



Project : 1414 Ballard St. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89599
Date Collected: 04/17/20
Date Received: 04/23/20
Date Analyzed: 04/29/20
Date Reported: 05/06/20

Other - 100%

Other - 100%

Other - 95%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **YES** 

Chrysotile - 5%

Non-Asbestos Material

Lab ID #: 89599 - 25

BS-HM-13A Concrete

Material: Concrete Location: Basement

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Cust. #:

Lab ID #: 89599 - 26

Cust. #: BS-HM-13B Material: Concrete Location: Basement

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89599 - 27

Cust. #: BS-HM-14A

Material: Glazing

Location:

Appearance: beige, fibrous, homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Other - 95%

Sample Information

Asbestos Type/Percent

Asbestos Present: YES

Non-Asbestos Material

Lab ID #: 89599 - 28 Cust. #: Material:

BS-HM-14B

Glazing

Location: Appearance:

Layer:

Lab ID #:

89599 - 29

Cust. #: BS-HM-15A Material: Patch Glazing

Location:

Appearance: beige, fibrous, homogenous

of Layer:

Lab ID #: 89599 - 30

Cust. #: BS-HM-15B Material: Patch Glazing

Location: Appearance:

Layer: 1

Asbestos Present: NOT ANALYZED

Chrysotile - 5%

Asbestos Present: NOT ANALYZED

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: YES

Chrysotile - 10%

Asbestos Present:

NOT ANALYZED

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 90%

Lab ID #: 89599 - 31 Cust. #:

BS-HM-16A

Flashing

Material: Location:

Appearance: black, fibrous, homogenous

Layer: of

Lab ID #:

89599 - 32

Cust. #: BS-HM-16B

of

Material: Flashing Location:

Appearance:

Layer: 1

Lab ID #: 89599 - 33

BS-HS-01A Cust. #: Material: Stucco

Location:

Appearance: beige,nonfibrous,homogenous

Layer: of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Other - 100%

# Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Other - 100%

Other - 100%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 34 Cust. #:

BS-HS-01B

Material: Stucco

Location:

Appearance: beige, nonfibrous, homogenous

Layer: of

89599 - 35 Lab ID #:

Cust. #: BS-HS-01C Material: Stucco

Location:

Appearance: beige,nonfibrous,homogenous

of Layer:

Lab ID #: 89599 - 36

BS-HS-01D Cust. #: Material: Stucco

Location:

Appearance: beige,nonfibrous,homogenous

Layer: of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Other - 100%

Cellulose - 2%

Hair - 2%

Other - 96%

Cellulose - 2%

Hair - 2%

Other - 96%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89599 - 37 Cust. #:

BS-HS-01E

Material: Stucco

Location:

Appearance: white, nonfibrous, homogenous

Layer: of

Lab ID #:

89599 - 38

Cust. #:

BS-HS-02A

Material:

Plaster

of

Location:

Appearance: beige, fibrous, homogenous

Layer:

Lab ID #: 89599 - 39

BS-HS-02B Cust. #:

Plaster

Material: Location:

Appearance: beige, fibrous, homogenous

Layer:

of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

## Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89599 - 40 Cust. #: BS-HS-02C Material: Plaster

Location:

Appearance: beige, fibrous, homogenous

Layer: of

Lab ID #: 89599 - 41 Cust. #:

BS-HS-02D Material: Plaster

Location:

Appearance: beige, fibrous, homogenous

of Layer:

Lab ID #: 89599 - 42 BS-HS-02E Cust. #: Material: Plaster

Location:

Appearance: beige, fibrous, homogenous

Layer: of 1 Asbestos Present: NO Cellulose - 2%

Hair - 2% Other - 96%

Cellulose - 2%

Hair - 2%

Other - 96%

Asbestos Present: **NO** 

Asbestos Present: NO

Cellulose - 2% Hair - 2%

Other - 96%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



# Test Method, Polarized Light Microscopy (PLM)



Project: 1414 Ballard St. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89599 Date Collected: 04/17/20 Date Received: 04/23/20 Date Analyzed: 04/29/20 Date Reported: 05/06/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Wollastonite - 2%

Wollastonite - 2%

Wollastonite - 2%

Other - 98%

Other - 98%

Other - 98%

Lab ID #: 89599 - 43 Cust. #: BS-HS-03A Material:

Texture

Location:

Appearance: white, fibrous, homogenous

Layer: of

89599 - 44 Lab ID #:

Cust. #: BS-HS-03B Material: Texture

Location:

Appearance: white, fibrous, homogenous

of Layer:

Lab ID #: 89599 - 45

BS-HS-03C Cust. #: Material: Texture

Location:

Appearance: white, fibrous, homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

\* 89599



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990 E-m

Fax: /34-449-999	
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Client Name.	Red C	Client Name. Red dedar Consulting	Date of Survey: 4-17-20	Lab Use Only Log-In
Address:	PO Bo	PO Box 13216	Project: 1414 Bollow St.	Report
City St. Zip: Lansing, MI 48901	Lansi	ing, MI 48901	Project #:	
Phone: (888)	(888)449-4566	(888) 448-	Contact Person: Aaron Paquet	\$ \$ \$
Turn Ar	punu	Turn Around Times: (Circle One) PLM EPA 6	labdata@redcedarconsurting.incl	CIM.
TAT III III	\$1150		Doint Count	

Viable

Other

BioSIS

Tape

Bulk

Mold:

EPA Level II

Bulk/NOB

**AHERA 7400** 

TEM:

TTP All Samples

Soil

Paint

Air

Wipe

Bulk

Lead:

24 hour

Rush

72 hour

48 hour

Other:

PCM

Point Count

Wipe

Asbestos: Bulk

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1,ab ID #	Client ID#	Material/Location	Volume	Alca	Nesairs
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Rev: 12/03

APEX RESEARCH

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APR 23 2020

Date:



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990 Fax: 734-449-9991

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Rev: 12/03

APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990 Fax: 734-449-9991

E-mail: apexresearch@chartermi.net

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Results	vel II	OB EPA Level II Volume	TEM: AHERA 7400 Bulk/NOB  Material/Location	(111) All Samples
Viable	Other Vi	BioSIS	Mold: Bulk Tape	
	t Soil	Air Paint	Lead: Bulk Wipe	
<5% ACM.	etection of <	samples with a d	Turn Around Times: (Circle One) PLM EPA 600, PC all samples with a detection of <5% ACM.  Asbestos: Bulk * Wipe Point Count PCM	<u>)</u>
	Paquet	Contact Person: Aaron Paquet	(888) 448-8	Fax
		#:	Project #	City, St., Zip: Lansing, MI 48901
Report	an 54	Project: 1414 Bollan St	Project	
Lab Use Or Log-In	1720	Date of Survey: 41720		Red Cedar Consulting

I.ah II.	Client ID#	Material/Location	Volume	Area	Results
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# APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

E-mail: apexresearch@chartermi.net

Fax: 734-449-9991

Client Name:	ame:	Red C	Red Cedar Consulting			Date of S	Survey:	Date of Survey: 471720	Lab Use	Lab Use Only Log-In
Address:			PO Box 13216			Project :		Project: 100 1414 Bollan St.	Report_	
City, St., Zip:	Zip:	l	Lansing, MI 48901			Project #:	. +			
Phone:	(888) 449-4566	49-456	Fax:	(888) 448-8739	-8739	Contact ]	Person:	Contact Person: Aaron Paquet		
Turn	Arol	pun	Fime	One)	PLM EPA 6	00, PC all s	l amples wit	labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM.	consulting.net f <5% ACM.	נו
			,	Asbestos: Bulk	Bulk	Wipe	Point Count	PCM		
Rush	24 hour			Lead:	Bulk	Wipe	Air	Paint Soil		
48 hour	72 hour			Mold:	Bulk	Tape	BioSIS	Other	Viable	
Other:	7		TTP) All Samples	TEM:	AHERA 7400	Bulk/NOB		EPA Level II	I	

	Client ID#	Material/Location	Volume	Area	Results
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APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990



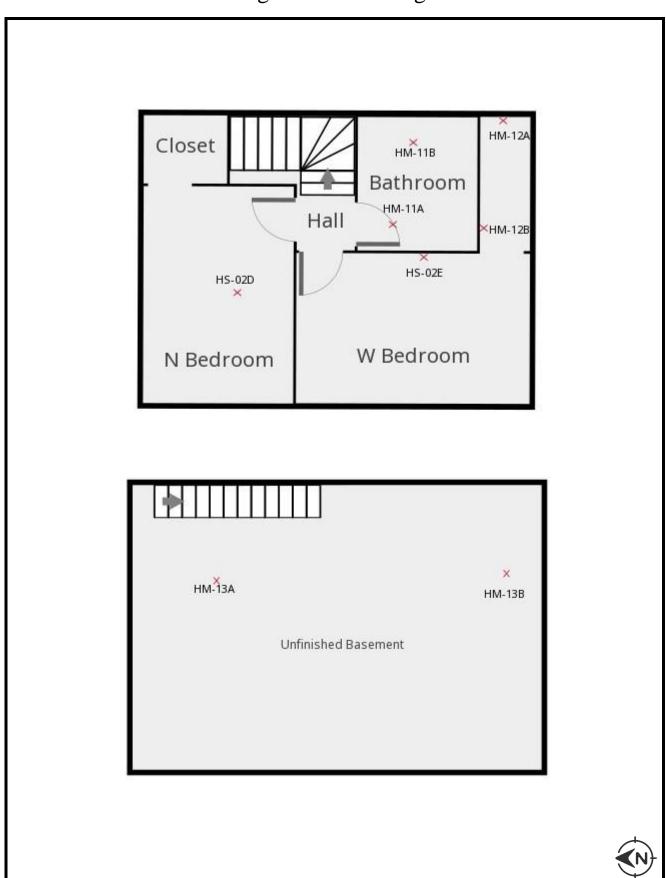
Fax: 734-449-9991 E-mail: apexresearch@chartermi.net Lab Use Only Log-In\_\_\_\_\_ labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM. Report\_ Viable Soil Project: 1414 Bulland St Date of Survey: H-17-20 Contact Person: Aaron Paquet Other EPA Level II Paint Point Count BioSIS Project #: Bulk/NOB Wipe Tape **AHERA 7400** Asbestos: Bulk x Fax: (888) 448-8739 Bulk Bulk Lead: Mold: Turn Around Times: (Circle One) TEM: Client Name: Red dedar Consulting City, St., Zip: Lansing, MI 48901 (TTP) All Samples PO Box 13216 Phone: (888) 449-4566 24 hour 72 hour Address: 48 hour Rush

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
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Date: 4-22-20	Date:	, 9		Date:	APEX RESEARCH
Rev: 12/03					

# Red Cedar Consulting

Attachment B
Site Diagrams

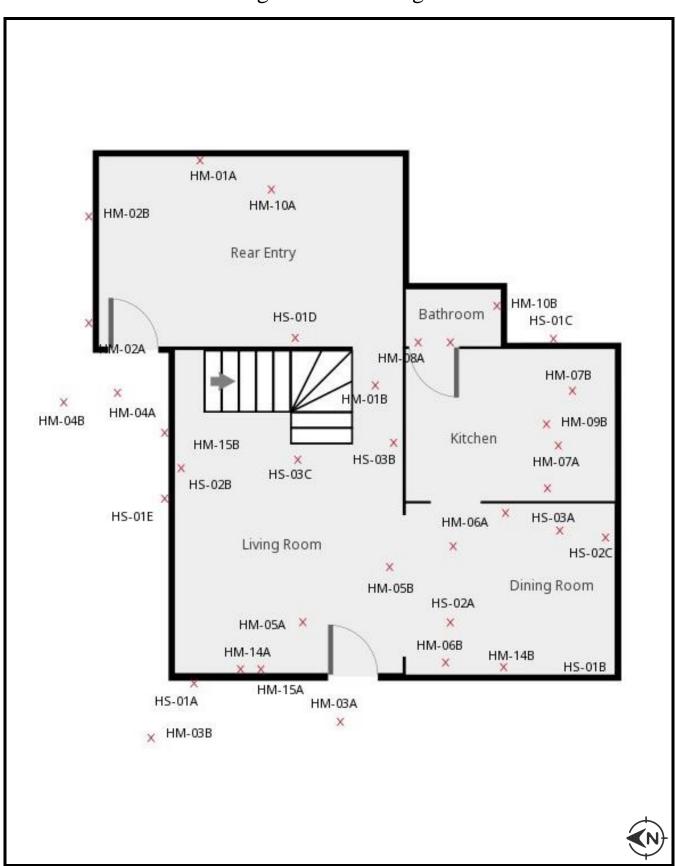
Figure 1b Site Diagram



Note: Figure created by Red Cedar Consulting

Asbestos Sample Locations 1414 Ballard St. Lansing, MI

Figure 1a Site Diagram



# Red Cedar Consulting

# Attachment C ACM Photos



PHOTO: 1 BY: A. Paquet

**SUBJECT:** View of front of the Property.



PHOTO: 2 BY: A. Paquet

**SUBJECT:** Asphalt Roofing (under newer roof)



PHOTO: 3
SUBJECT: Flashing on Roof/Wall junction, Roof Vents
BY: A. Paquet



PHOTO: 4 BY: A. Paquet

**SUBJECT:** Typical Window



PHOTO: 5 BY: A. Paquet

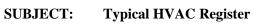


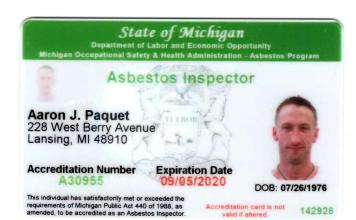


PHOTO: 6 BY: A. Paquet

**SUBJECT:** Typical HVAC Wall Chase

# Red Cedar Consulting

Attachment D
Inspector Certifications/ID's







# Red Cedar Consulting

# **Tables**

 $Table\ 1\ \hbox{-} Summary\ of\ Hazardous\ Materials,}\ 1414\ Ballard\ St.,\ Lansing,\ Michigan$ 

Hazardous Materials Description and Location					
Location	Material Description	Quantity			
Rear Entry	Television	5			
2 <sup>nd</sup> Fl. N Bedroom	Television	1			
2 <sup>nd</sup> Fl. Hall	Smoke Detector	1			

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1414 Ballard St., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
BS-HM-01A	Asphalt Shingles	No	M	Category I	ND/ND/ND	Exterior	850 sq. ft.
BS-HM-01B	Asphalt Shingles	No	M	Category I	ND/ND/ND	Exterior	
BS-HM-02A	Asphalt Roofing	No	M	Category I	ND/10% CH	Exterior	200 sq. ft.
BS-HM-02B	Asphalt Roofing	No	M	Category I	ND/NA	Exterior	ACM
BS-HM-03A	Concrete Front P.	No	M	Category II	ND	Exterior	85 sq. ft.
BS-HM-03B	Concrete Front P.	No	M	Category II	ND	Exterior	
BS-HM-04A	Concrete Side P.	No	M	Category II	ND	Exterior	60 sq. ft.
BS-HM-04B	Concrete Side P.	No	M	Category Ii	ND	Exterior	
BS-HM-05A	Green 12x12 VFT	No	M	Category I	ND/ND	Living	200 sq. ft.
BS-HM-05B	Green 12x12 VFT	No	M	Category I	ND/ND	Living	
BS-HM-06A	Brown 12x12 VFT	No	M	Category I	ND/ND	Dining	100 sq. ft.
BS-HM-06B	Brown 12x12 VFT	No	M	Category I	ND/ND	Dining	
BS-HM-07A	Blue 12x12 VFT	No	M	Category I	ND/ND	Kitchen	85 sq. ft.
BS-HM-07B	Blue 12x12 VFT	No	M	Category I	ND/ND	Kitchen	
BS-HM-08A	Yellow Linoleum	No	M	Category I	ND	Bathroom	15 sq. ft.
BS-HM-08B	Yellow Linoleum	No	M	Category I	ND	Bathroom	
BS-HM-09A	White 2x2 CT	Yes	M	Category II	ND	Kitchen	85 sq. ft.
BS-HM-09B	White 2x2 CT	Yes	M	Category II	ND	Kitchen	
BS-HM-10A	Drywall & Compound	No	M	Category II	ND/ND	Living Ceiling	1,750 sq. ft.
BS-HM-10B	Drywall & Compound	No	M	Category II	ND/ND	Bath Wall	
BS-HM-11A	White Linoleum	No	M	Category II	ND/ND	2 <sup>nd</sup> Fl. Bath	65 sq. ft.
BS-HM-11B	White Linoleum	No	M	Category II	ND/ND	2 <sup>nd</sup> Fl. Bath	
BS-HM-12A	Drywall Old	No	М	Category II	ND/.5% CH PC	2 <sup>nd</sup> FL. S Bedroom Closet Wall	150 sq. ft.
BS-HM-12B	Drywall Old	No	М	Category II	ND/Trace	2nd Fl. S Bedroom	
BS-HM-13A	Concrete Bsmt.	No	M	Category II	ND	Basement 430	
BS-HM-13B	Concrete Bsmt.	No	M	Category II	ND	Basement	
BS-HM-14A	Glazing	Yes	M	Category II	5% CH	Living	15 Windows

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1414 Ballard St., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
BS-HM-14B	Glazing	Yes	M	Category II	NA	Dining	ACM
BS-HM-15A	Patch Glazing	Yes	М	Category II	5% CH	Living	See Sample BS-HM-14A
BS-HM-15B	Patch Glazing	Yes	M	Category II	NA	Living	ACM
BS-HM-16A	Flashing	No	M	Category I	10% CH	Exterior	50 sq. ft.
BS-HM-16B	Flashing	No	M	Category I	NA	Exterior	ACM
BS-HS-01A	Stucco	No	S	Category II	ND	Exterior	1,750 sq. ft.
BS-HS-01B	Stucco	No	S	Category II	ND	Exterior	
BS-HS-01C	Stucco	No	S	Category II	ND	Exterior	
BS-HS-01D	Stucco	No	S	Category II	ND	Exterior	
BS-HS-01E	Stucco	No	S	Category II	ND	Exterior	
BS-HS-02A	Plaster	No	S	Category II	ND	Dining Ceiling	2,850 sq. ft.
BS-HS-02B	Plaster	No	S	Category II	ND	Living Wall	
BS-HS-02C	Plaster	No	S	Category II	ND	Dining Wall	
BS-HS-02D	Plaster	No	S	Category II	ND	2 <sup>nd</sup> Fl. N Bedroom Ceiling	
BS-HS-02E	Plaster	No	S	Category II	ND	2 <sup>nd</sup> Fl. W Bedroom Wall	
BS-HS-03A	Texture	No	S	Category II	ND	Dining Ceiling	300 sq. ft.
BS-HS-03B	Texture	No	S	Category II	ND	Living Ceiling	
BS-HS-03C	Texture	No	S	Category II	ND	Living Ceiling	

### **Notes:**

Material Types

**Abbreviations** 

M = Miscellaneous building material TSI = Thermal System Insulation NQ = Not quantified NA = Not Analyzed

S = Surfacing Material

ND = Not detected. Laboratory result is less than 1 % asbestos

PC = Point Count Analysis CH = Chrysotile Asbestos lin. ft. = linear feet sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1414 Ballard St., Lansing, Michigan

Asbestos Containing Material Description and Location						
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity	
Kitchen (1 register, 15 sq. ft.)  2 <sup>nd</sup> Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)  2 <sup>nd</sup> Fl. W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	85 sq. ft.	

### **Notes:**

Material Types

= Miscellaneous building material M

TSI = Thermal System Insulation S = Surfacing Material

**Abbreviations** 

lin. ft. = linear feet

sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1414 Ballard St., Lansing, Michigan

<b>Exterior - Asbestos Containing Materials</b>			
Location	Material Description	Friable	Approx. Quantity
Building Roof	Asphalt Roofing (covered by newer roof system)  Total	No	200 sq. ft. <b>200 sq. ft.</b>
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Chimney/Valleys	Flashing	No	50 sq. ft.
	Total		50 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Kitchen (1 register, 15 sq. ft.)  2 <sup>nd</sup> Fl. N Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)  2 <sup>nd</sup> Fl. W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap  Total	Yes	85 sq. ft. <b>85 sq. ft.</b>
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (2 windows 40" wide x 60" tall)	Glazing	Yes	2 Windows
Living (1 window 40" wide x 24" tall)	Glazing	Yes	1 Window
Dining (1 window 40" wide x 60" tall)	Glazing	Yes	1 Window
Dining (1 window 40" wide x 24" tall)	Glazing	Yes	1 Window
Kitchen (1 window 34" wide x 24" tall)	Glazing	Yes	1 Window
Bath (1 window 24" wide x 28" tall)	Glazing	Yes	1 Window
Rear Entry (1 window 40" wide x 20" tall)	Glazing	Yes	1 Window
2 <sup>nd</sup> Fl. W Bedroom (2 windows 26" wide x 40" tall)	Glazing	Yes	2 Windows
2 <sup>nd</sup> Fl. N Bedroom (2 windows 28" wide x 58" tall)	Glazing	Yes	2 Windows
2 <sup>nd</sup> Fl. N Bedroom (1 window 26" wide x 40" tall)	Glazing	Yes	1 Window
Basement (2 windows 30" wide x 12" tall)	Glazing	Yes	2 Windows
	Total		15 Windows

### Table 4 - Summary of All Asbestos Containing Materials, 1414 Ballard St., Lansing, Michigan

### **Notes:**

### <u>Abbreviations</u>

lin. ft. = linear feet sq. ft. = square feet

**Shaded/Bolded** = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216 Lansing, MI 48901 Phone: 888.449.4566 Fax: 888.448.8739

www.redcedarconsulting.net

May 5, 2020

Mr. Michael Andrick Ingham County Land Bank 3024 Turner St. Lansing, MI 48906

RE: Asbestos Containing Material and Hazardous Materials Inspection

1821 S Rundle Ave., Lansing, MI 48910

Parcel ID: 33-01-01-20-489-051

Dear Mr. Andrick:

Red Cedar Consulting has completed an asbestos-containing material (ACM) inspection at 1821 S Rundle Ave, Lansing, Michigan (Subject Property). This inspection was completed at the request of the Ingham County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

### **SUBJECT PROPERTY**

The Subject Property is comprised of a .24-acre residential parcel which contains a 304 sq. ft. detached garage and approximate 1,688 square foot residential building (the Building) constructed in 1924. The Building was constructed on a concrete basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bath, bedroom and rear entry on the first floor while the second floor contains five bedrooms and a bathroom.

### **VISUAL INSPECTION AND SAMPLING**

### **Asbestos Containing Materials Inspection**

Aaron Paquet of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on March 11, 2020 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Shingle
- Vapor Barrier
- Linoleum
- 12x12 VFT
- Drywall & Compound
- Glazing
- Concrete
- Sheet Vinyl
- Plaster

Red Cedar staff collected forty-four samples of suspect ACBM separated into nineteen distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the forty-four samples is included as Attachment A.

### **Hazardous Materials Inspection**

On March 11, 2020 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

### INSPECTION RESULTS AND RECOMMENDATIONS

During the completion of the asbestos inspection, forty-four samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results. A Site Diagram was prepared which provides the general building layout and sample locations and is included as Attachment B. Photos of each different type of ACM identified during this inspection are included in Attachment C and copies of the Asbestos Inspectors certifications are included as Attachment D.

ACM, as defined by the USEPA NESHAP is "any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy".

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in "visible emissions" which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as "material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM's are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing's, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

### **Presumed Asbestos Containing Material**

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be "rebutted" following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Vermiculite insulation was identified during the completion of this inspection and was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

### Friable ACM's

A window glazing sample collected from a window in the NE Bedroom was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material identified windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (1 window 32" wide x 55" tall)
- Living (1 window 32" wide x 36" tall)
- Living (2 windows 39" wide x 55" tall)
- Dining (2 windows 18" wide x 45" tall)
- Dining (1 window 32" wide x 45" tall)
- NE Bedroom (1 window 32" wide x 50" tall)
- Kitchen (1 window 32" wide x 36" tall)
- Rear Entry (2 windows 21" wide x 26" tall)
- Rear Entry (1 window 60" wide x 46" tall)
- Rear Entry (1 window 27" wide x 48" tall)
- Bath (1 window 32" wide x 36" tall)
- Attic (4 windows 24" wide x 24" tall)
- 2nd Fl. NE Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. NE Bedroom (1 window 21" wide x 26" tall)
- Bath (1 window 24" wide x 40" tall)
- 2nd Fl. NW Bedroom (2 windows 32" wide x 50" tall)
- 2nd Fl. SE Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. S Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. SW Bedroom (2 windows 32" wide x 50" tall)
- Basement (4 windows 24" wide x 18" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Kitchen (1 register, 10 sq. ft.)
- Bathroom (1 register, 10 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Vermiculite insulation identified in the Building is classified as friable ACM. The visual assessment to quantify the extent of this material identified approximately 200 sq. ft. at a depth of 6" within the Buildings attic.

### **Category I ACM**

No Category I ACM was identified during the completion of this inspection.

### **Category II ACM**

Drywall Compound samples collected from the Living Room were found to contain up to 1.75% asbestos following analysis. The assessment to quantify the extent of this material identified approximately 1,560 sq. ft. of drywall compound within the Building.

### **RECOMMENDATIONS**

### **Asbestos Containing Materials**

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Kitchen (1 register, 10 sq. ft.)
- Bathroom (1 register, 10 sq. ft.)
- 2nd Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Friable asbestos containing window glazing was identified on windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Living (1 window 32" wide x 55" tall)
- Living (1 window 32" wide x 36" tall)
- Living (2 windows 39" wide x 55" tall)
- Dining (2 windows 18" wide x 45" tall)
- Dining (1 window 32" wide x 45" tall)
- NE Bedroom (1 window 32" wide x 50" tall)
- Kitchen (1 window 32" wide x 36" tall)
- Rear Entry (2 windows 21" wide x 26" tall)
- Rear Entry (1 window 60" wide x 46" tall)
- Rear Entry (1 window 27" wide x 48" tall)
- Bath (1 window 32" wide x 36" tall)
- Attic (4 windows 24" wide x 24" tall)
- 2nd Fl. NE Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. NE Bedroom (1 window 21" wide x 26" tall)
- Bath (1 window 24" wide x 40" tall)
- 2nd Fl. NW Bedroom (2 windows 32" wide x 50" tall)
- 2nd Fl. SE Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. S Bedroom (1 window 32" wide x 50" tall)
- 2nd Fl. SW Bedroom (2 windows 32" wide x 50" tall)

• Basement (4 windows 24" wide x 18" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

Drywall Compound identified on the interior of the Building must be abated prior to completion of any renovation/demolition activities at the Subject Property. Any Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations must be properly abated.

Vermiculite insulation identified in the Building attic is classified as friable ACM and should be removed prior to any renovation/demolition activities.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

### **Hazardous Materials**

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

No Hazardous Materials Identified

### REGULATORY REQUIREMENTS

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.

> Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program Department of Environmental Quality

Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program

State of Michigan Phone: 517-284-7680

Email: asbestos@michigan.gov

### **DISCLAIMER**

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Ingham County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,

**Red Cedar Consulting** 

Aaron Paquet

Michigan/EPA Certified Asbestos Building Inspector

(A30955, Exp. 9-5-2020)

# Red Cedar Consulting

# Attachment A APEX Research Laboratory Analytical Results

# Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Cellulose - 40%

Cellulose - 40%

Cellulose - 80%

Other - 20%

Other - 60%

Other - 60%

Lab ID #: Cust. #:

89283 - 01 RA-HM-01A

**Black Roofing Shingle** 

Material: Location:

Appearance: black, fibrous, nonhomogenous

Layer:

Lab ID #:

89283 - 02 RA-HM-01B

Cust. #: Material:

**Black Roofing Shingle** 

Location:

Appearance: black, fibrous, homogenous

Layer:

of

Lab ID #:

89283 - 03 RA-HM-02A

Cust. #:

Vapor Barrier

Material:

Location:

Appearance: brown, fibrous, homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283

Date Collected: 03/11/20

Date Received: 03/12/20

Date Analyzed: 03/17/20

Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 89283 - 04 Cust. #: RA-HM-02B Material: Vapor Barrier Asbestos Present: **NO**No Asbestos Observed

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Cellulose - 80% Other - 20%

Cellulose - 40%

Cellulose - 40%

Other - 60%

Other - 60%

Location:

Appearance: brown,fibrous,homogenous

Layer: 1 of

Lab ID #: 89283 - 05 Cust. #: RA-HM-03A

Material: Tan Speck Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

Lab ID #: 89283 - 06 Cust. #: RA-HM-03B

Material: Tan Speck Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting

P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89283 Date Collected: 03/11/20

Cellulose - 1%

Other - 99%

Other - 100%

Other - 100%

Date Received: 03/12/20 Date Analyzed: 03/17/20

Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #: 89283 - 07 Cust. #:

RA-HM-04A

Material:

Tan Mottled VFT

Location:

Appearance: brown, nonfibrous, homogenous

Layer:

Lab ID #:

89283 - 07a

Cust. #:

RA-HM-04A

Material:

Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer:

of

Lab ID #:

89283 - 08

Cust. #:

RA-HM-04B

Material:

Tan Mottled VFT

Location:

Appearance: brown,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Other - 100%

Cellulose - 10%

Fiberglass - 10%

Other - 80%

Lab ID #: Cust. #:

89283 - 08a

RA-HM-04B

Material: Glue

Location:

Appearance: yellow,nonfibrous,homogenous

Layer:

Lab ID #:

89283 - 09

Cust. #:

RA-HM-05A White Linoleum

Material: Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Lab ID #: 89283 - 09a

Cust. #: RA-HM-05A

Material: Sheet Flooring

Location:

Appearance: white, fibrous, nonhomogenous

Layer: of

Asbestos Present: NO

No Asbestos Observed

Cellulose - 40%

Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)





Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet

Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-89283

Date Collected: Date Received:

03/11/20 03/12/20

Date Analyzed:

03/17/20

Date Reported:

03/18/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: Cust. #:

89283 - 10 RA-HM-05B

White Linoleum

Material: Location:

Appearance: white, fibrous, nonhomogenous

Layer:

Lab ID #:

89283 - 10a

Cust. #:

RA-HM-05B Sheet Flooring

Material: Location:

Appearance: white, fibrous, nonhomogenous

of

Layer:

Lab ID #: 89283 - 11

Cust. #:

RA-HM-06A

Drywall Material:

Location:

Appearance: white, fibrous, nonhomogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

of

Asbestos Present: NO

No Asbestos Observed

Cellulose - 10% Fiberglass - 10%

Other - 80%

No Asbestos Observed

Asbestos Present: NO

Cellulose - 40% Other - 60%

Asbestos Present: NO

No Asbestos Observed

Cellulose - 20% Other - 80%

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

 Report To:
 ARI Report #
 20-89283

 Mr. Aaron Paquet
 Date Collected:
 03/11/20

 Red Cedar Consulting
 Date Received:
 03/12/20

 P.O. Box 13216
 Date Analyzed:
 03/17/20

 Lansing, MI 48901
 Date Reported:
 03/18/20

Sample Information Asbestos Type/Percent Non-Asbestos Material

Lab ID #: 89283 - 11a Asbestos Present: **YES** Other - 98.25%

Cust. #: RA-HM-06A Chrysotile - 1.75%

Cust. #: RA-HM-06A Chrysotile - 1.75% Material: Joint Compound

Location:

Appearance: beige, fibrous, homogenous POINT COUNT RESULT

Layer: 2 of 2

Lab ID #: 89283 - 12 Asbestos Present: **NO** Cellulose - 20% Cust. #: RA-HM-06B No Asbestos Observed Other - 80%

Cust. #: RA-HM-06B No Asbesto Material: Drywall

Location:

Layer:

Appearance: white, fibrous, nonhomogenous

2

Layer: 1 of 2

Lab ID #: 89283 - 12a Asbestos Present:

Cust. #: RA-HM-06B Material: Joint Compound

Location: NOT ANALYZED

Appearance:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



03/18/20

Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported:

Other - 95%

Sample Information

Asbestos Type/Percent

Asbestos Present: YES

Chrysotile - 5%

Asbestos Present:

NOT ANALYZED

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #: 89283 - 13

RA-HM-07A

Cust. #: Material: Window Glazing

Location:

Appearance: beige, fibrous, homogenous

Layer:

of

Lab ID #:

89283 - 14

Cust. #: Material: RA-HM-07B

Location:

Layer:

Window Glazing

Appearance:

of

Lab ID #:

89283 - 15

Cust. #:

RA-HM-08A

Material:

Addition Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Other - 100%

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: Cust. #:

89283 - 16

RA-HM-08B

Material:

Addition Concrete

Location:

Layer:

Appearance: grey,nonfibrous,homogenous

89283 - 17

Lab ID #: Cust. #:

RA-HM-09A

Material:

**Basement Floor Concrete** 

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

Lab ID #:

89283 - 18

Cust. #:

RA-HM-09B

Material:

**Basement Floor Concrete** 

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Hair - 5%

Hair - 5%

Other - 95%

Other - 100%

Other - 95%

Lab ID #: 89283 - 19 Cust. #: RA-HS-01A Material:

Plaster Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer:

Lab ID #: 89283 - 20 Cust. #: RA-HS-01B Material:

Plaster Base Coat

Location:

Appearance: grey,fibrous,homogenous

of Layer:

Lab ID #: 89283 - 21

RA-HS-01C Cust. #: Plaster Finish Coat Material:

Location:

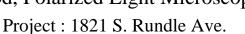
Appearance: white, nonfibrous, homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)





Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-89283

Date Collected: Date Received:

03/11/20 03/12/20

Date Analyzed:

Cellulose - 1%

Other - 99%

03/17/20

Date Reported:

03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #:

89283 - 21a

RA-HS-01C

Material:

Plaster Base Coat

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

Asbestos Present: NO

Other - 100%

Cellulose - 1%

Other - 99%

Lab ID #:

89283 - 22

Cust. #:

RA-HS-01D

Material:

Plaster Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer:

89283 - 22a

of

Lab ID #: Cust. #:

RA-HS-01D

Material:

Plaster Base Coat

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283

Date Collected: 03/11/20

Date Received: 03/12/20

Date Analyzed: 03/17/20

Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #: 89283 - 23 Cust. #: RA-HS-01E Asbestos Present: **NO**No Asbestos Observed

Other - 100%

Cellulose - 1%

Other - 99%

Other - 100%

Material: Pla

Plaster Finish Coat

Location:

Appearance: white,nonfibrous,homogenous

Layer: 1

l of 2

Lab ID #: 892 Cust. #: RA

89283 - 23a RA-HS-01E

Material: Plaster Base Coat

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 2 of

Lab ID #: 89283 - 24

Cust. #: RA-HM-10A

Material: Garage Floor Concrete

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-89283

Date Collected: 03/11/20

Date Received: 03/12/20

Date Analyzed: 03/17/20

Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: Cust. #:

89283 - 25

RA-HM-10B

Material:

Garage Floor Concrete

Location:

.

Appearance: grey,nonfibrous,homogenous

Layer:

of 1

Lab ID #:

89283 - 26

Cust. #:

RA-HM-11A

Material:

Garage Floor Patch

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of 1

Lab ID #:

89283 - 27

Cust. #:

RA-HM-11B

Material:

Location:

Appearance: grey,nonfibrous,homogenous

Garage Floor Patch

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)





Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89283 Date Collected: 03/11/20 Date Received: 03/12/20 Date Analyzed: 03/17/20 Date Reported: 03/18/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: Cust. #:

89283 - 28

RA-HM-12A

Material: Cast Concrete Steps

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

Lab ID #:

89283 - 29

Cust. #:

RA-HM-12B Cast Concrete Steps

Material:

Location:

Appearance: grey,nonfibrous,homogenous

of Layer:

Lab ID #: 89283 - 30

of

Cust. #:

RA-HM-13A

Material:

Roofing Shingle

Location: Garage

Appearance: black, fibrous, homogenous

Layer:

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 100%

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Cellulose - 40% Other - 60%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S. Rundle Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting

P.O. Box 13216 Lansing, MI 48901 ARI Report #

20-89283 03/11/20

Date Collected: Date Received:

03/12/20

Date Analyzed:

03/17/20

Date Reported:

03/18/20

### Sample Information

### Asbestos Type/Percent

### Non-Asbestos Material

Lab ID #: 89283 - 30a Cust. #:

RA-HM-13A

Material: Felt Location: Garage

Appearance: black, fibrous, homogenous

Layer:

Lab ID #:

89283 - 31

Cust. #:

RA-HM-13B

Material:

Roofing Shingle

Location: Garage

Appearance: black, fibrous, homogenous

of

Layer:

Lab ID #:

89283 - 31a

Cust. #:

RA-HM-13B

Material:

Felt

Location: Garage

Appearance: black, fibrous, homogenous

Layer:

of

Asbestos Present: NO

No Asbestos Observed

Cellulose - 60%

Other - 40%

Asbestos Present: NO

No Asbestos Observed

Cellulose - 40% Other - 60%

Asbestos Present: NO

No Asbestos Observed

Cellulose - 60% Other - 40%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

89283 # xədA

# APEX Research, Inc.



Lab Use Only Log-In

Client Na	ame: Re	Client Name: Red Cedar Consulting	nsulting		Date of Survey: 3-11-20
Address:	. [	PO Box 13216			Project: 1821 5. Rundle Ave
City, St.,	Zip: L	City, St., Zip: Lansing, MI 48901	48901		Project #:
Phone: (888) 449-4566	(888) 449	-4566	Fax: (888) 448-8739	148-8739	Contact Person: Aaron Paquet
Turn,	Aroui	Turn Around Times:	les: (Circle One)		PLM EPA 600, PC all samples with a detection of <5% ACM.

•
,
•
1
1
,

Viable

Other

BioSIS

Tape

Bulk

Mold:

Soil

Paint

Air\_

Wipe

Bulk

Lead:

Asbestos: Bulk

Turn Around Times: (Circle One)

24 hour

Rush

72 hour

48 hour

**PCM** 

Point Count

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
***	RA.HM-01A	Black Roofing Shingle			
B	0 20				
eC	A20	Vapor Barrier			
ל	62R				
-5	534	Tan Speck Line lown			
9	038				
t	V+0	Tan Mottled VFT			
B	870	: :			
9	D54	1/ h. to Linolaum Lanered			
0)	058				
ij	064	Drywall & Joint Compound			

Received by: UPS	Date: 3-11-20
Relinquished by Age Metter	Date: 3-11-20

Relinquished by: Date:

Received @ APEX Research Received by: Here Thuce y

03/12/20 11:09:07

89283 Page 2 # xəqA



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

Fax: 734-449-9991 E-mail: apexresearch@chartermi.net

Client Na	me:	Client Name: Red Cedar Consulting	19		Date of	Date of Survey: 3-11-20	3-11-20	Lab	Lab Use Log-In
Address:	,	PO Box 13216			Project	: /82/ 5.	Project: 1821 5. Rundle Ave		Report
City, St.,	Zip:	City, St., Zip: Lansing, MI 48901			Project #:	  -   #			
Phone: (	(888)4	(888) 449-4566 Fax	Fax: (888) 448-8739	3-8739	Contact	Contact Person: Aaron Paquet	aron Paquet		
Turn A	Vro	Turn Around Times: (c	(Circle One)	PLM EPA	600, PC all	lak samples with	labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM.	rconsulting.r of <5% ACM.	net
			Asbestos: Bulk	Bulk x	Wipe	Point Count	PCM		
Rush 2	24 hour		,	D.:II.	W	.;	Doint Coil	· •	
18 hour	72 hour		read:	Dalk	w Ibe	- Aur		),III	
1		(	Mold:	Bulk	Tape	BioSIS	Other	Viable	
Ther. J. A.M.	1	(TTP)							

EPA Level II

Bulk/NOB

AHERA 7400

TEM:

Results											
Area											
Volume		**************************************				Tables Service					
Material/Location	Drywell & Jaint Compound	Window Glazina		Addition Concrete		Basament Floor Concrete	:	Tlaster	4.4	•	•
Client ID#	870-WH-87	A 70 / /	878	A80	880	A80	abo A T	RA-45-01A	810 / /	2/0	die 1
Lab ID#	B	13	4	Ş	91	41	91	b?	96	7	CE

Relinquished by: 18 Well Matera Received by: 575 Date: 3.(1-20 Date: 3-/1-20

Relinquished by:

Date:

Received @ APEX Research Received by: Lacitatery

03/12/20 11:09:07

Page CO 89283 # xəqA



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

e Only

	L-man. apex	L'inaii. apeareseach(gehaiteinimhe	1 dv. 73+449-7771	
Client Name: Red Cedar Consulting		Date of Surv	Date of Survey: 3-1/-20	Lab Use Log-In
Address: PO BOX 13216		Project: //	Project: 182/5/Rundle Ave	Report
City, St., Zip: Lansing, MI 48901		Project #:		
Phone: (888) 449-4566 Fax: (888) 448-8739	448-8739	Contact Pers	Contact Person: Aaron Paquet	
Turn Around Times: (Circle One)		500, PC all sample	PLM EPA 600, PC all samples with a detection of <5% ACM.	ing.net CM.
	Asbestos: Bulk x	Wipe Poin	Point Count PCM	
Rush 24 hour Lead:	Bulk	Wine	Paint Soil	
48 hour 72 hour		- Antonia separate se	4 WAXAA	
	: Bulk	Tape BioSIS	SIS Other Viable	
Other: The All Samples TEM:	: AHERA 7400	Bulk/NOB	EPA Level II	

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
33	2A-45-01E	Pleater			
the	RA-HM-104	M			
SS	80/ /	1			
36	4//	There Titol			
18	1/8	,, 0,,,			
3-18	124	Past Coursete Steam			the second secon
29	87.1	1. 1.			
30	134	Kothus Shindle (Gelak)			
<u>cs</u>	V V 13B	1 " 1 " 1 0"			

Color Received by: UFS Date: 3-11-26 Relinquished by:

Relinquished by: Date:

Received @ APEX Research Received by: Slave Mover

03/12/20 11:09:07

### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473

Date Collected: 03/27/20

Date Received: 03/30/20

Date Analyzed: 03/31/20

Date Reported: 03/31/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Other - 100%

Other - 100%

Lab ID #: 89473 - 1

Cust. #: Material:

RA-HM-14A Concrete

Location: Sidewalk
Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

Edyci. 1 of

Lab ID #: 89473 - 2

Cust. #: RA-HM-14B Material: Concrete Location: Sidewalk

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89473 - 3

Cust. #: RA-HM-15A Material: Concrete

Location: Front Approach

Appearance: grey,nonfibrous,homogenous

Layer: 1 of 1

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473

Date Collected: 03/27/20

Date Received: 03/30/20

Date Analyzed: 03/31/20

Date Reported: 03/31/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Other - 100%

Cellulose - 40%

Cellulose - 60%

Other - 40%

Other - 60%

Lab ID #: 89473 - 4

Cust. #: RA-HM-15B Material: Concrete Location: Front Approach

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89473 - 5

Cust. #: RA-HM-16A Material: Sheet Floor

Material: Location:

Appearance: green, fibrous, nonhomogenous

Layer: 1 of 2

Lab ID #: 89473 - 5a

Cust. #: RA-HM-16A Material: Sheet Floor

Location:

Appearance: white, fibrous, nonhomogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer: 2 of 2

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473
Date Collected: 03/27/20
Date Received: 03/30/20
Date Analyzed: 03/31/20
Date Reported: 03/31/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 50%

Cellulose - 50%

Cellulose - 40%

Other - 60%

Other - 50%

Other - 50%

Lab ID #: 89473 - 6

RA-HM-16B Sheet Floor

Material: Location:

Cust. #:

Appearance: green, fibrous, nonhomogenous

Layer: 1 of

Lab ID #: 89473 - 6a

Cust. #: RA-HM-16B Material: Sheet Floor

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 2 of 2

Lab ID #: 89473 - 7

Cust. #: RA-HM-17A

Material: Sheet Floor

Location:

Appearance: beige, fibrous, nonhomogenous

Layer: 1 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473

Date Collected: 03/27/20

Date Received: 03/30/20

Date Analyzed: 03/31/20

Date Reported: 03/31/20

**Sample Information** 

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Cellulose - 60%

Cellulose - 40%

Cellulose - 50%

Other - 50%

Other - 60%

Other - 40%

Lab ID #: 89473 - 7a
Cust. #: RA-HM-17A
Material: Sheet Floor

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 2 of 2

Lab ID #: 89473 - 8

Cust. #: RA-HM-17B Material: Sheet Floor

Location:

Appearance: beige, fibrous, nonhomogenous

Layer: 1 of 2

Lab ID #: 89473 - 8a

Cust. #: RA-HM-17B Material: Sheet Floor

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 2 of 2

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473
Date Collected: 03/27/20
Date Received: 03/30/20
Date Analyzed: 03/31/20
Date Reported: 03/31/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Wollastonite - 1%

Other - 99%

Cellulose - 1%

Cellulose - 20%

Other - 80%

Other - 99%

Lab ID #: 89473 - 9 Cust. #: RA-HS-02A

RA-HS-02A Texture

Material: Location:

Appearance: white, nonfibrous, homogenous

Layer: 1 of 3

Lab ID #: 89473 - 9a

Cust. #: RA-HS-02A

Material: Plaster

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 3

Lab ID #: 89473 - 9b

Cust. #: RA-HS-02A Material: Drywall

Material: Location:

Appearance: white, fibrous, nonhomogenous

Layer: 3 of 3

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S Rundle Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89473 Date Collected: 03/27/20 Date Received: 03/30/20 Date Analyzed: 03/31/20 Date Reported: 03/31/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Wollastonite - 1%

Other - 99%

Cellulose - 1%

Cellulose - 20% Other - 80%

Other - 99%

Lab ID #: 89473 - 10 Cust. #: RA-HS-02B Material:

Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: of

Lab ID #: 89473 - 10a

Cust. #: RA-HS-02B Material: Plaster

Location:

Appearance: grey,nonfibrous,homogenous

of Layer:

Lab ID #: 89473 - 10b

Cust. #: RA-HS-02B Material: Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 3 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473
Date Collected: 03/27/20
Date Received: 03/30/20
Date Analyzed: 03/31/20
Date Reported: 03/31/20

Wollastonite - 1%

Other - 99%

Cellulose - 1%

Cellulose - 20%

Other - 80%

Other - 99%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89473 - 11 Cust. #: RA-HS-02C

Material: Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: 1 of 3

Lab ID #: 89473 - 11a

Cust. #: RA-HS-02C Material: Plaster

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 3

Lab ID #: 89473 - 11b

Cust. #: RA-HS-02C Material: Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 3 of 3

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

### Test Method, Polarized Light Microscopy (PLM)



Project : 1821 S Rundle Ave. Project # :

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report # 20-89473
Date Collected: 03/27/20
Date Received: 03/30/20
Date Analyzed: 03/31/20
Date Reported: 03/31/20

Wollastonite - 1%

Other - 99%

Cellulose - 1%

Cellulose - 20% Other - 80%

Other - 99%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89473 - 12 Cust. #: RA-HS-02D Material: Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: 1 of 3

Lab ID #: 89473 - 12a

Cust. #: RA-HS-02D Material: Plaster

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 2 of 3

Lab ID #: 89473 - 12b Cust. #: RA-HS-02D

Material: Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 3 of 3

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director



### Test Method, Polarized Light Microscopy (PLM)



Project: 1821 S Rundle Ave. Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-89473 Date Collected: 03/27/20 Date Received: 03/30/20 Date Analyzed: 03/31/20 Date Reported: 03/31/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Wollastonite - 1%

Other - 99%

Cellulose - 1%

Cellulose - 20%

Other - 80%

Other - 99%

Lab ID #: 89473 - 13 Cust. #: RA-HS-02E Material:

Texture

Location:

Appearance: white, nonfibrous, homogenous

Layer: of

Lab ID #: 89473 - 13a

Cust. #: RA-HS-02E Material: Plaster

Location:

Appearance: grey,nonfibrous,homogenous

of Layer:

Lab ID #: 89473 - 13b

RA-HS-02E Cust. #: Material: Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer: 3 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# 89473

ALLA Kesearch, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Polinguished but					and the state of t	A CONTRACTOR OF THE CONTRACTOR	endo-malaya uniayi			mig.		Lab ID#		Other:	48 hour 72 hour	Rush 24 hour		Turn Arou	Phone: (888) 449-4566	City, St., Zip:	Address: _	Client Name:
D	V 07C	023	19-18-07A	J 178	- V7A	29	16A	1573	15/	1 143	PA-MM-14A	Client ID#	THE SOUNDED	TTP All Samples				Around Times: (Circle One)	9-4566 Fax:	Lansing, MI 48901	PO Box 13216	Red Cedar Consulting
202			Gray Plasto	7	multilon or L	7	Green Sheet Viny	-	Front Amore		Sidewalk Co	Material/Location	TEM: AHERA 7400	Mold: Bulk	Dead. Dulk	Toods Dall.	Asbestos: Bulk ×	Circle One) PLM EPA	(888) 448-8739			19
<b>5</b>				8	1 d 4		d dry/	\$	Asproach loves	7	Concerte	cation V	00Bulk/NOB	Tape Bio	wipeAll		Wipe Poir	. 600, PC all sample	Contact Person:	Project #:	Project: 182	Date of Survey
<b>.</b>												olume	EPA Level II	BioSIS Other	ramt		Point Count PCM	labdata@redc es with a detecti	On: Aaron Paquet			ey: 3-27-22
RECEIVED												Area Results		Viable	S011		Ś	labdata@redcedarconsulting.net s with a detection of <5% ACM.	(°F	,	Ave	Lab Use Only Log-In

Date:\_

Relinquished by:

Received by: \_\_

Date:\_

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Date:

Relinquished by:

Received by:

Date:

MAR 3 0 2020 BB 1026 APEX RESEARCH

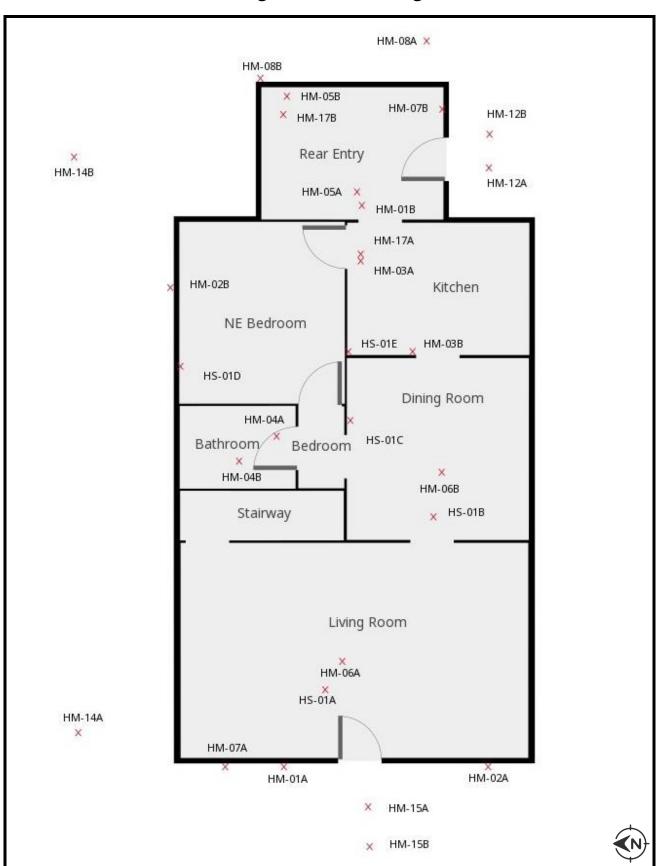
APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990 E-mail: apexresearch@chartermi.net Fax: 734-449-9991

Date: 3/27/20	Relinquished by:	,				- market control of the control of t		70	Lab ID#	Officer: S = 3		18 hour 72 hour	Duch 24 hour	Turn Around Times: (Circle One)	Phone: (888) 449-4566	City, St., Zip: Lansing, MI	Address: PO	Client Name: Red
Date : 3'	Received by:						1 020	RA-115-02D	Client ID#	All Samples				d Times: (Ci	1566 Fax:	nsing, MI 48901	PO Box 13216	Red Cedar Consulting
Date: 3/27-70, Date:	Relinquished by:						<u> </u>	Corey Plastro	Material/Location	TEM: AHERA 7400 Bulk/NOB	Mold: Bulk Tape	Lead: Bulk Wipe	Asbestos: Bulk Wipe	PLM EPA	(888) 448-8739	Project # :	Project	
D:	Rec								Volume	NOB EPA Level II	BioSIS Other	_ Air Paint	Point Count	labdata@re samples with a detec	t Person: Aaron Pag	#:	Project: 1826 Runi	Date of Survey: 3/27/20
Date: APEX RESEARCH	Received by: MAR 3 0 2020								Area Results		er Viable	Soil	PCM	labdata@redcedarconsulting.net 600, PC all samples with a detection of <5% ACM.	Paquet		for,	Lab Use Only Log-In

### Red Cedar Consulting

Attachment B
Site Diagrams

Figure 1a Site Diagram



Note: Figure created by Red Cedar Consulting

Asbestos Sample Locations 1821 S Rundle Ave. Lansing, MI

Figure 1b Site Diagram

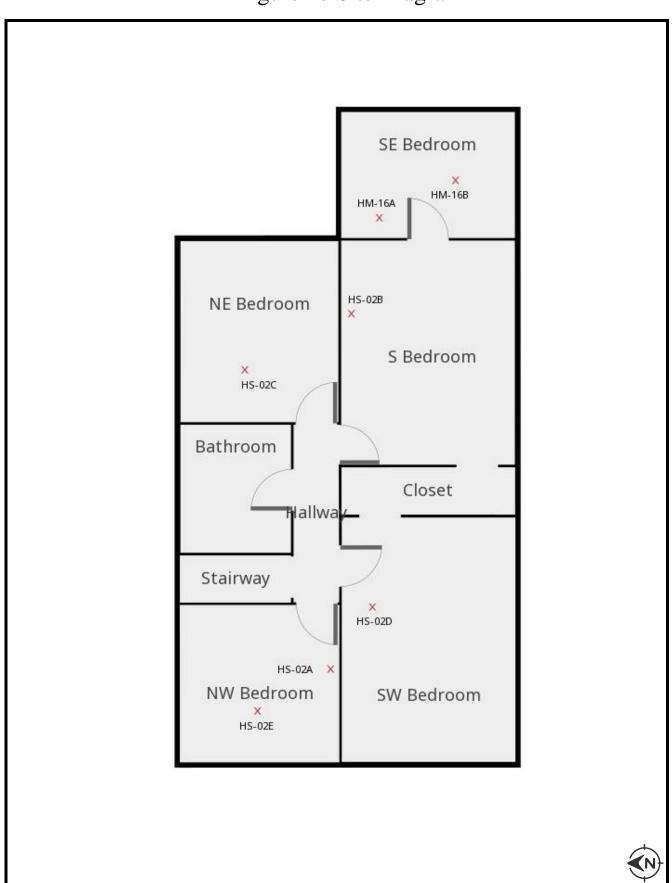
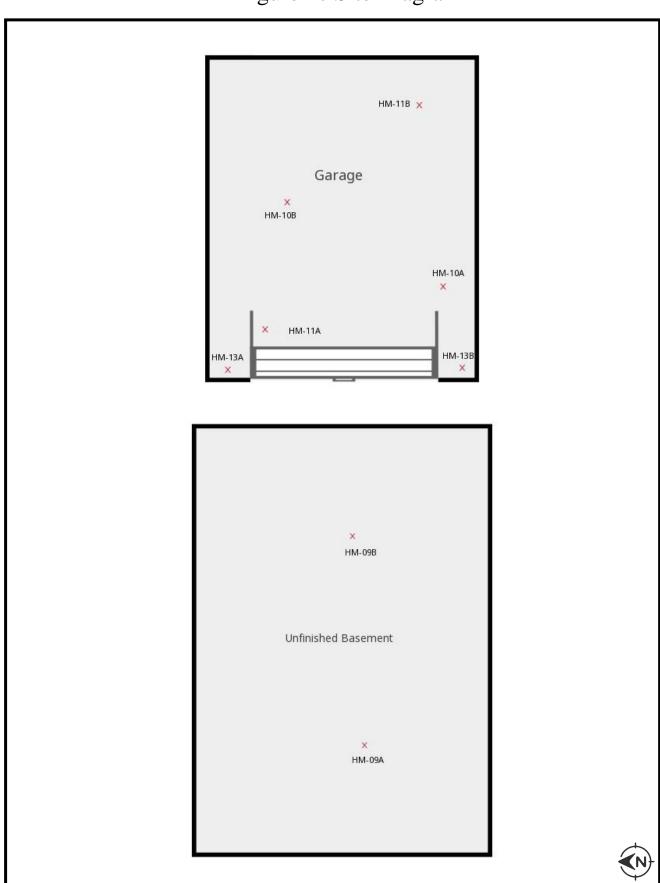


Figure 1c Site Diagram



Note: Figure created by Red Cedar Consulting

Asbestos Sample Locations 1821 S Rundle Ave. Lansing, MI

### Red Cedar Consulting

## Attachment C ACM Photos



PHOTO: 1 BY: A. Paquet

**SUBJECT:** View of front of the Property.



PHOTO: 2 BY: A. Paquet

**SUBJECT:** Typical HVAC Register



PHOTO: 3 BY: A. Paquet

**SUBJECT:** Typical Window with Glazing



PHOTO: 4 BY: A. Paquet

**SUBJECT:** Vermiculite Insulation

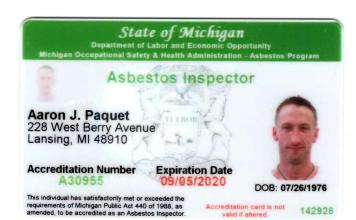


PHOTO: 5 BY: A. Paquet

**SUBJECT:** Drywall & Compound

### Red Cedar Consulting

Attachment D
Inspector Certifications/ID's







### Red Cedar Consulting

### **Tables**

#### Table 1 - Summary of Hazardous Materials, 1821 S Rundle Ave., Lansing, Michigan

Hazardous Materials Description and Location				
Location	Material Description	Quantity		
No Hazardous Materials Identified				

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1821 S Rundle Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
RA-HM-01A	Black Roofing Shingle	No	M	Category I	ND Exterior		1,800 sq. ft.
RA-HM-01B	Black Roofing Shingle	No	M	Category I	ND	Exterior	
RA-HM-02A	Vapor Barrier	Yes	M	Category II	ND	Exterior	2,.400 sq. ft.
RA-HM-02B	Vapor Barrier	Yes	M	Category II	ND	Exterior	
RA-HM-03A	Tan Speck Linoleum	No	M	Category I	ND	Kitchen	90 sq. ft.
RA-HM-03B	Tan Speck Linoleum	No	M	Category I	ND	Kitchen	
RA-HM-04A	Tan Mottled VFT	No	M	Category I	ND/ND	Bathroom	50 sq. ft.
RA-HM-04B	Tan Mottled VFT	No	M	Category I	ND/ND	Bathroom	
RA-HM-05A	White Linoleum/Layered	No	M	Category I	ND/ND	Rear Entry	90 sq. ft.
RA-HM-05B	White Linoleum/Layered	No	M	Category I	ND/ND	Rear Entry	
RA-HM-06A	Drywall & Joint Compound	No	M	Category II	ND/1.75% CH PC	Living Ceiling	1,560 sq. ft.
RA-HM-06B	Drywall & Joint Compound	No	M	Category II	ND/NA Dining Ceilir		ACM
RA-HM-07A	Window Glazing	Yes	M	Category II	5% CH NE Bedroom		31 Windows
RA-HM-07B	Window Glazing	Yes	M	Category II	NA Living		ACM
RA-HM-08A	Addition Concrete	No	M	Category II	ND	Exterior	450 sq. ft.
RA-HM-08B	Addition Concrete	No	M	Category II	ND Exterior		
RA-HM-09A	Basement Floor Concrete	No	M	Category II	ND Basement		840 sq. ft.
RA-HM-09B	Basement Floor Concrete	No	M	Category II	ND	Basement	
RA-HM-10A	Garage Floor Concrete	No	M	Category II	ND	Garage	305 sq. ft.
RA-HM-10B	Garage Floor Concrete	No	M	Category II	ND Garage		
RA-HM-11A	Garage Floor Patch	No	M	Category II	ND Garage		25 sq. ft.
RA-HM-11B	Garage Floor Patch	No	M	Category II	ND Garage		
RA-HM-12A	Cast Concrete Steps	No	M	Category II	ND Exterior		I Unit
RA-HM-12B	Cast Concrete Steps	No	M	Category II	ND Exterior		
RA-HM-13A	Roofing Shingle Garage	No	M	Category I	ND/ND Garage		480 sq. ft.
RA-HM-13B	Roofing Shingle Garage	No	M	Category I	ND/ND Garage		
RA-HM-14A	Sidewalk Concrete	No	M	Category II	ND	Exterior	120 sq. ft.
RA-HM-14B	Sidewalk Concrete	No	M	Category II	ND	Exterior	

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 1821 S Rundle Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
RA-HM-15A	Front Approach Concrete	No	M	Category II	ND	Exterior	50 sq. ft.
RA-HM-15B	Front Approach Concrete	No	M	Category II	ND	Exterior	
RA-HM-16A	Green Sheet Vinyl	No	M	Category I	ND/ND	2 <sup>nd</sup> Fl. SE Bedroom	90 sq. ft.
RA-HM-16B	Green Sheet Vinyl	No	M	Category I	ND/ND	2 <sup>nd</sup> Fl. SE Bedroom	
RA-HM-17A	Multilayer Linoleum	No	M	Category I	ND/ND	Kitchen	90 sq. ft.
RA-HM-17B	Multilayer Linoleum	No	M	Category I	ND	Rear Entry	
RA-HS-01A	Plaster	No	S	Category II	ND	ND Living Ceiling	
RA-HS-01B	Plaster	No	S	Category II	ND/ND	Dining Ceiling	
RA-HS-01C	Plaster	No	S	Category II	ND/ND	Dining Wall	
RA-HS-01D	Plaster	No	S	Category II	ND/ND	Kitchen Wall	
RA-HS-01E	Plaster	No	S	Category II	ND/ND	NE Bedroom Wall	
RA-HS-02A	Gray Plaster	No	S	Category II	ND/ND/ND 2 <sup>nd</sup> Fl. NW Bedroom Wall		2,600 sq. ft.
RA-HS-02B	Gray Plaster	No	S	Category II	ND/ND/ND 2 <sup>nd</sup> Fl S Bedroom Wall		
RA-HS-02C	Gray Plaster	No	S	Category II	ND/ND/ND 2 <sup>nd</sup> Fl. NE Bedroom Ceiling		
RA-HS-02D	Gray Plaster	No	S	Category II	ND/ND/ND	2 <sup>nd</sup> Fl SW Bedroom Ceiling	
RA-HS-02E	Gray Plaster	No	S	Category II	ND/ND/ND	2 <sup>nd</sup> Fl. NW Bedroom Ceiling	

#### **Notes:**

Material Types

Abbreviations

M = Miscellaneous building materialTSI = Thermal System Insulation

NQ = Not quantified NA = Not Analyzed

S = Surfacing Material

ND = Not detected. Laboratory result is less than 1 % asbestos

PC = Point Count Analysis CH = Chrysotile Asbestos lin. ft. = linear feet sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 1821 S Rundle Ave., Lansing, Michigan

Asbestos Containing Material Description and Location						
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity	
Kitchen (1 register, 10 sq. ft.) Bathroom (1 register, 10 sq. ft.)  2 <sup>nd</sup> Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)  2 <sup>nd</sup> Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)  2 <sup>nd</sup> Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	125 sq. ft.	
Attic (200 sq. ft. at 6" depth including cellulose insulation)	Vermiculite	Yes	Fair	M	200 sq. ft. at 6" depth	

#### **Notes:**

#### Material Types

M = Miscellaneous building material TSI = Thermal System Insulation

S = Surfacing Material

#### **Abbreviations**

lin. ft. = linear feet sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 1821 S Rundle Ave., Lansing, Michigan

Interior - Asbestos Containing Materials			
Location	<b>Material Description</b>	Friable	Approx. Quantity
Kitchen (1 register, 10 sq. ft.) Bathroom (1 register, 10 sq. ft.) 2 <sup>nd</sup> Fl. NE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 <sup>nd</sup> Fl. NW Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 <sup>nd</sup> Fl. SE Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	125 sq. ft.
	Total		125 sq. ft.
Interior - Asbestos Containing Materials			
Location	<b>Material Description</b>	Friable	Approx. Quantity
Living (1 window 32" wide x 55" tall)	Glazing	Yes	1 Windows
Living (1 window 32" wide x 36" tall)	Glazing	Yes	1 Windows
Living (2 windows 39" wide x 55" tall)	Glazing	Yes	2 Windows
Dining (2 windows 18" wide x 45" tall)	Glazing	Yes	2 Windows
Dining (1 window 32" wide x 45" tall)	Glazing	Yes	1 Windows
NE Bedroom (1 window 32" wide x 50" tall)	Glazing	Yes	1 Windows
Kitchen (1 window 32" wide x 36" tall)	Glazing	Yes	1 Windows
Rear Entry (2 windows 21" wide x 26" tall)	Glazing	Yes	2 Windows
Rear Entry (1 window 60" wide x 46" tall)	Glazing	Yes	1 Windows
Rear Entry (1 window 27" wide x 48" tall)	Glazing	Yes	1 Windows
Bath (1 window 32" wide x 36" tall)	Glazing	Yes	1 Windows
Attic (4 windows 24" wide x 24" tall)	Glazing	Yes	4 Windows
2 <sup>nd</sup> Fl. NE Bedroom (1 window 32" wide x 50" tall)	Glazing	Yes	1 Windows
2 <sup>nd</sup> Fl. NE Bedroom (1 window 21" wide x 26" tall)	Glazing	Yes	1 Windows
Bath (1 window 24" wide x 40" tall)	Glazing	Yes	1 Windows
2 <sup>nd</sup> Fl. NW Bedroom (2 windows 32" wide x 50" tall)	Glazing	Yes	2 Windows
2 <sup>nd</sup> Fl. SE Bedroom (1 window 32" wide x 50" tall)	Glazing	Yes	1 Windows
2 <sup>nd</sup> Fl. S Bedroom (1 window 32" wide x 50" tall)	Glazing	Yes	1 Windows
2 <sup>nd</sup> Fl. SW Bedroom (2 windows 32" wide x 50" tall)	Glazing	Yes	2 Windows
Basement (4 windows 24" wide x 18" tall)	Glazing	Yes	4 Windows
	Total		31 Windows

Table 4 - Summary of All Asbestos Containing Materials, 1821 S Rundle Ave., Lansing, Michigan

Interior - Asbestos Containing Materials			
Location	<b>Material Description</b>	Friable	Approx. Quantity
Building Attic	Vermiculite	Yes	200 sq. ft. at 6" depth
	Total		200 sq. ft. at 6" depth
Interior - Asbestos Containing Materials			
Location	<b>Material Description</b>	Friable	Approx. Quantity
Living, Dining, Hall, Basement. Stairwell Ceilings and Living and Hall Walls	Drywall Compound	No	1,198 sq. ft.
2 <sup>nd</sup> Fl. Bath and SE Bedroom Ceilings and Bathroom Walls	<b>Drywall Compound</b>	No	361 sq. ft.
	Total		1,560 sq. ft.

#### **Notes:**

#### **Abbreviations**

lin. ft. = linear feet sq. ft. = square feet

**Shaded/Bolded** = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.



P.O. Box 13216 Lansing, MI 48901 Phone: 888.449.4566 Fax: 888.448.8739

www.redcedarconsulting.net

May 5, 2020

Mr. Michael Andrick Ingham County Land Bank 3024 Turner St. Lansing, MI 48906

RE: Asbestos Containing Material and Hazardous Materials Inspection

2330 S Pennsylvania Ave., Lansing, MI 48910

Parcel ID: 33-01-01-27-156-091

Dear Mr. Andrick:

Red Cedar Consulting has completed an asbestos-containing material (ACM) inspection at 2330 S Pennsylvania Ave., Lansing, Michigan (Subject Property). This inspection was completed at the request of the Ingham County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

#### **SUBJECT PROPERTY**

The Subject Property is comprised of a .107-acre residential parcel which contains a 216 sq. ft. detached garage and approximate 1,055 square foot residential building (the Building) constructed in 1929. The Building was constructed on a concrete basement with two aboveground floors. The exterior walls of the Building were finished with wood shake while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bath, and two bedrooms on the first floor while the second floor contains one large bedroom.

#### **VISUAL INSPECTION AND SAMPLING**

#### **Asbestos Containing Materials Inspection**

Aaron Paquet of Red Cedar Consulting (Red Cedar), accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) who completed training per the Michigan Asbestos Workers Accreditation Act 440, completed an inspection of the Subject Property on February 14, 2020 for suspected asbestos containing building materials.

This inspection, and subsequent sample collection was completed in accordance with the USEPA Asbestos Hazard Emergency Response Act (AHERA) (40 CFR Part 763) assessment and sampling protocol.

During the completion of the inspection, each area of the Subject Property was visually inspected for asbestos containing building materials (ACBM). Following the completion of the visual inspection, Red Cedar staff identified each suspect area of friable and non-friable ACBM and sorted them into one of three homogenous categories for sampling purposes. AHERA defines friable as a material that when dry, may be crumbled, pulverized, or reduced to powder by hand pressure. A homogenous area is defined by OSHA as an area of surfacing, thermal system insulation (TSI) or miscellaneous material that is uniform in color and texture. Surfacing materials are most commonly found in sprayed-on, troweled-on or otherwise applied to surfaces, such as acoustical plaster on ceilings and fireproofing materials on structural members. TSI refers to materials applied to pipes, fittings, boilers, ductwork, or other components to prevent heat loss or gain, or condensation. Any material that does not fall under the surfacing or TSI category, such as floor tile, drywall, and acoustical ceiling tile are placed into the miscellaneous materials category.

Following the completion of the visual inspection, Red Cedar staff identified the following materials as suspect ACBM:

- Asphalt Shingle
- Concrete
- Felt Paper
- Vapor Barrier
- Glazing
- Linoleum
- 12x12 VFT
- Fiberboard
- Cove Base & Mastic
- Sink Undercoat
- Drywall & Compound
- Plaster
- Wallboard & Plaster

Red Cedar staff collected fifty-two samples of suspect ACBM separated into twenty-five distinct homogenous groups for laboratory analysis. Samples were collected and submitted to APEX Research Inc. Laboratories (APEX) (Accreditation Number 102118-0) for laboratory analysis. Analysis was completed utilizing polarized light microscopy (PLM) which is the Environmental Protection Agency (EPA) approved method for analysis of bulk materials for asbestos. PLM analysis completed pursuant to method (EPA 600/M4-82-020) identifies asbestos fiber bundles by the visual properties displayed when the sample is treated with various dispersion staining liquids. The laboratory report completed following the sample analysis indicates if asbestos is present, and at what percentage along with a description and percentage of other fibrous and non-fibrous materials and sample color. Chain-of-custody documentation was followed from sample collection through shipping and receiving of the samples at the designated laboratory. The documentation assures that samples will meet the quality assurance/quality control measures defined by AHERA. The laboratory analytical report prepared by APEX for the fifty-two samples is included as Attachment A.

#### **Hazardous Materials Inspection**

On February 14, 2020 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

#### **INSPECTION RESULTS AND RECOMMENDATIONS**

During the completion of the asbestos inspection, fifty-two samples of suspect ACM were collected and are documented in Table 2 along with the Red Cedar sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results. A Site Diagram was prepared which provides the general building layout and sample locations and is included as Attachment B. Photos of each different type of ACM identified during this inspection are included in Attachment C and copies of the Asbestos Inspectors certifications are included as Attachment D.

ACM, as defined by the USEPA NESHAP is "any material containing more than 1 percent asbestos as determined using the method specified in appendix E, subpart E, 40 CFR part 763 Section 1, Polarized Light Microscopy".

Friable ACM is defined by NESHAP as any material containing more than 1 percent asbestos that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure. Friable ACM is a concern due the ease of unintentionally disturbing the ACM which may result in "visible emissions" which is known as a Fiber Release Episode.

Non-friable asbestos-containing material is defined as "material containing more than 1 percent asbestos that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure. Non-friable ACM's are separated into Category I and Category II ACM. Category I ACM is any asbestos containing packing's, gaskets, resilient floor coverings (vinyl floor tile and linoleum are examples of these) and asphalt roofing products. Category II ACM is stated by NESHAP as any material excluding Category I non-friable ACM such as drywall, plaster or fiberboard insulation.

#### **Presumed Asbestos Containing Material**

Presumed Asbestos Containing Materials (PACM) are suspect surfacing, TSI and miscellaneous materials found in buildings constructed prior to 1980 which are classified as and due to the age of the structure, are assumed to be ACM and do not require sample collection and analysis. OSHA dictates that PACM may be "rebutted" following a complete inspection pursuant to AHERA protocol.

The HVAC Duct Wrap located in the Building was classified as PACM due to the age of the structure and samples were not collected.

Table 3 lists the location, material description, friability, condition, material type (surfacing, thermal or miscellaneous) and approximate quantity of all PACM documented at the Subject Property.

Table 4 provides a summary all ACM documented at the Subject Property which includes the material location, description, and approximate quantity.

#### Friable ACM's

A window glazing sample collected from a Storm Window in the Living Room was found to contain up to 1.5% asbestos following analysis. The assessment to quantify the extent of this material identified windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (5 storm windows 28" wide x 54" tall)
- E Bedroom (1 storm window 34" wide x 54" tall)
- W Bedroom (2 storm windows 28" wide x 54" tall)
- Kitchen (1 storm window 40" wide x 54" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 10 sq. ft.)
- E Bedroom (1 register, 10 sq. ft.)
- W Bedroom (1 register, 10 sq. ft.)
- Bathroom (1 register, 10 sq. ft.)

#### **Category I ACM**

A resilient floor covering (Stone Linoleum) located within the kitchen were found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material identified approximately 50 sq. ft. of this material within the Building.

#### **Category II ACM**

No Category II non-friable ACM was identified during the completion of this inspection.

#### **RECOMMENDATIONS**

#### **Asbestos Containing Materials**

HVAC material identified in the Building system and listed below is classified as friable ACM and should be removed prior to any renovation/demolition activities.

- Living (1 register, 10 sq. ft.)
- E Bedroom (1 register, 10 sq. ft.)
- W Bedroom (1 register, 10 sq. ft.)
- Bathroom (1 register, 10 sq. ft.)

Friable asbestos containing window glazing was identified on Storm Windows throughout the Building. The locations of these windows that should be abated prior to demolition/renovation activities are listed below:

- Living (5 storm windows 28" wide x 54" tall)
- E Bedroom (1 storm window 34" wide x 54" tall)
- W Bedroom (2 storm windows 28" wide x 54" tall)
- Kitchen (1 storm window 40" wide x 54" tall)

Please note: Other different sized windows are located throughout the Building but these windows were assessed and found to be constructed either without window glazing or were sampled and found to not contain asbestos and therefore are not required to be removed.

The Category I resilient floor covering (Stone Linoleum) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note: The location of samples obtained during this inspection were in a random fashion and areas that were not identified during this inspection may be damaged or have become damaged since the inspection was completed. If Category I or Category II friable materials are discovered prior to or during the demolition/renovation process, these materials must be abated prior to commencement of any demolition/renovation activities at the Subject Property.

#### **Hazardous Materials**

Hazardous Materials identified at the Subject Property and documented in Table 1 which require proper removal and disposal consist of the following items:

• 5-Gallon Fuel Container (2)

#### **REGULATORY REQUIREMENTS**

A Notification of intent to Renovate/Demolish form must be filed with the Michigan Department of Environmental Quality- Air Quality Division at least 10 working days prior to any renovation or demolition activities at a site.

The Notification of Intent to Renovate/Demolish form must also be completed and submitted to the MIOSHA-Asbestos Program whenever demolition, encapsulation and/or renovation activities at a site involving greater than ten lineal feet and/or fifteen square feet of ACM will be completed.

Regulated asbestos containing materials per NESHAP (40 CFR Part 61) which falls into any of the following categories are ACM's that must be removed prior to any renovation/demolition activities at the Subject Property.

- Friable asbestos material.
- Category I non-friable ACM that has become friable.
- Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading.
- Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of renovation or demolition operations.

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

Additional information regarding the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61) can be obtained by contacting the associated agency below.

NESHAP Asbestos Program Department of Environmental Quality

Phone: 517-284-6777

MIOSHA-CSHD-Asbestos Program

State of Michigan Phone: 517-284-7680

Email: asbestos@michigan.gov

#### **DISCLAIMER**

Red Cedar Consulting performed destructive testing methods in an attempt to access and inspect all areas of the Building. Unfortunately, due to the age of construction along with multiple additions/renovations that may have been completed on the Building, additional inspections may be required if suspect ACM material not documented within this report is encountered during renovation/demolition activities.

This report was prepared at the request and for exclusive use by the Ingham County Land Bank and may not be reproduced or sold without written permission from Red Cedar Consulting.

We appreciate the opportunity to provide the requested services. Please contact us at (888) 449-4566 with any questions or concerns.

Sincerely,

**Red Cedar Consulting** 

Aaron Paquet

Michigan/EPA Certified Asbestos Building Inspector

(A30955, Exp. 9-5-2020)

# Red Cedar Consulting

# Attachment A APEX Research Laboratory Analytical Results

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 40%

Cellulose - 40%

Cellulose - 60%

Other - 40%

Other - 60%

Other - 60%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 01

Cust. #:

PA-HM-01A

Material:

Asphalt Shingle

Location:

House

Appearance: black, fibrous, homogenous

Layer:

88965 - 01a

Lab ID #: Cust. #:

PA-HM-01A

Material:

**Grey Shingle** 

Location: House

Appearance: black, fibrous, homogenous

Layer: 2

of

Lab ID #:

88965 - 01b

Cust. #:

PA-HM-01A

Material:

Felt

Location: House

Appearance: black, fibrous, homogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

of

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

Cellulose - 40%

Other - 60%

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 02

PA-HM-01B

Cust. #: Material:

Asphalt Shingle

Location: House

Appearance: black, fibrous, homogenous

Layer:

Lab ID #:

88965 - 02a

PA-HM-01B

Asbestos Present: NO No Asbestos Observed

Cellulose - 40%

Other - 60%

Cust. #: Material: Black Shingle

Location: House

Appearance: black, fibrous, homogenous

Lab ID #: 88965 - 02b

Layer: 2 of

Asbestos Present: NO

No Asbestos Observed

Cellulose - 40% Other - 60%

Cust. #: Material:

PA-HM-01B **Grey Shingle** 

Location: House

Appearance: black, fibrous, homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 60%

Other - 40%

Other - 100%

Other - 100%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 02c

PA-HM-01B

Material: Felt Location: House

Appearance: black, fibrous, homogenous

Layer:

Lab ID #:

88965 - 03

Cust. #:

PA-HM-02A

Material:

Concrete Location: Front Porch

Appearance: black,nonfibrous,homogenous

Layer:

of

Lab ID #:

88965 - 04

Cust. #:

PA-HM-02B

Material:

Concrete

Location: Front Porch

Appearance: black,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 88965 - 05 Cust. #: PA-HM-03A Material: Felt Paper

Asbestos Present: NO No Asbestos Observed

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Cellulose - 60% Other - 40%

Cellulose - 60%

Cellulose - 80%

Other - 20%

Other - 40%

Location:

Appearance: black, fibrous, homogenous

Layer:

Lab ID #: 88965 - 06 Cust. #: PA-HM-03B Material:

Felt Paper

Location:

Appearance: black, fibrous, homogenous

of Layer:

Lab ID #: 88965 - 07 Cust. #: PA-HM-04A

Material: Vapor Barrier

Location:

Appearance: brown, fibrous, homogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer: of

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965 02/14/20

Date Collected: Date Received:

02/21/20

Date Analyzed:

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 08 PA-HM-04B Asbestos Present: NO No Asbestos Observed

Cellulose - 80% Other - 20%

Material:

Vapor Barrier

Location:

Appearance: brown,fibrous,homogenous

Layer:

Asbestos Present: NO

No Asbestos Observed

Fiberglass - 30%

Other - 70%

Lab ID #: Cust. #:

PA-HM-05A

88965 - 09

Material:

Asphalt Shingle

Location: Garage

Appearance: black, fibrous, homogenous

Layer:

of

Asbestos Present: NO No Asbestos Observed

Fiberglass - 30%

Other - 70%

Cust. #: Material: PA-HM-05A **Grey Shingle** 

Location: Garage

Lab ID #: 88965 - 09a

Appearance: black, fibrous, homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



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ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

Fiberglass - 30%

Other - 70%

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 09b

PA-HM-05A

Material:

**Black Shingle** 

Location: Garage

Appearance: black, fibrous, homogenous

Layer:

Asbestos Present: NO No Asbestos Observed

Fiberglass - 30%

Other - 70%

Lab ID #: Cust. #:

88965 - 09c PA-HM-05A

Material:

Black Shingle

Location: Garage

Appearance: black, fibrous, homogenous

Layer: of

Asbestos Present: NO

No Asbestos Observed

Fiberglass - 35% Other - 65%

Lab ID #: Cust. #: Material:

Felt

Location: Garage

Appearance: black, fibrous, homogenous

88965 - 09d

PA-HM-05A

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

Fiberglass - 30%

Fiberglass - 40%

Other - 60%

Other - 100%

Other - 70%

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 10

Cust. #:

PA-HM-05B

Material:

Asphalt Shingle

Location:

Garage

Appearance: black, fibrous, homogenous

Layer:

Lab ID #:

88965 - 10a

Cust. #:

PA-HM-05B

Material:

Felt

Location: Garage

Appearance: black, fibrous, homogenous

Layer: 2

of

Lab ID #:

88965 - 11

Cust. #:

PA-HM-06A

Material:

Concrete

Location: Garage

Appearance: grey,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

No Asbestos Observed

Non-Asbestos Material

Lab ID #: 88965 - 12

PA-HM-06B

Material: Concrete Location: Garage

Appearance: grey,nonfibrous,homogenous

Layer:

Cust. #:

Lab ID #:

88965 - 13

Cust. #:

PA-HM-07A

Material:

Storm Window Glazing

Location:

Appearance: beige, fibrous, homogenous

Layer:

of

Lab ID #:

88965 - 14

Cust. #: PA-HM-07B

Material: Storm Window Glazing

Location:

For Layered Samples, each component will be analyzed and reported separately.

Appearance:

Layer: of

Asbestos Present: NO Other - 100%

Asbestos Present: **YES** Other - 98.50% Chrysotile - 1.50%

POINT COUNT RESULT

NOT ANALYZED

Asbestos Present:

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20

Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Other - 100%

Other - 100%

Cellulose - 50%

Other - 50%

Lab ID #:

88965 - 15

PA-HM-08A

Cust. #: Material:

Garage Window Glazing

Location:

Appearance: white, nonfibrous, homogenous

Layer:

Lab ID #:

88965 - 16

Cust. #:

PA-HM-08B

Material:

Garage Window Glazing

Location:

Appearance: white, nonfibrous, homogenous

Layer:

of

Lab ID #:

88965 - 17

Cust. #:

PA-HM-09A

Material:

Brown Linoleum

Location:

Appearance: brown,fibrous,nonhomogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 88965 - 18 Cust. #: PA-HM-09B Brown Linoleum Asbestos Present: NO No Asbestos Observed

Cellulose - 50% Other - 50%

Other - 100%

Other - 100%

Material: Location:

Appearance: brown, fibrous, nonhomogenous

Layer:

88965 - 19 Lab ID #:

Cust. #: PA-HM-10A

Material: Burgundy 12x12 VFT

Location:

Appearance: brown,nonfibrous,homogenous

Layer: of

Lab ID #: 88965 - 19a

PA-HM-10A Cust. #:

Material: Glue

Location:

Appearance: clear,nonfibrous,homogenous

Layer: of Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 40%

Other - 60%

Other - 100%

Other - 100%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 19b

PA-HM-10A

Cust. #: Material:

**Sheet Flooring** 

Location:

Appearance: brown, fibrous, nonhomogenous

Layer:

Lab ID #:

88965 - 20

Cust. #:

PA-HM-10B

Material:

Burgundy 12x12 VFT

Location:

Appearance: brown,nonfibrous,homogenous

Layer:

of

Lab ID #:

88965 - 20a

Cust. #:

PA-HM-10B

Material:

Location:

Appearance: clear,nonfibrous,homogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

Glue

of

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



APEX

Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report #

20-88965

Date Collected:
Date Received:

02/14/20 02/21/20

Date Analyzed:

Cellulose - 40%

Other - 60%

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 20b

PA-HM-10B

Material:

Sheet Flooring

Location:

Appearance: brown, fibrous, nonhomogenous

Layer:

3 of

88965 - 21

PA-HM-11A

Asbestos Present: NO

No Asbestos Observed

Cellulose - 80% Other - 20%

Material: Fiberboard

Location:

Lab ID #:

Cust. #:

Appearance: brown,fibrous,homogenous

Layer: 1

Asbestos Present: **NO** 

No Asbestos Observed

Cellulose - 80% Other - 20%

Cust. #:
Material:

Lab ID #:

PA-HM-11B Fiberboard

88965 - 22

of

Location:

Appearance: brown, fibrous, homogenous

Layer: 1

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet

Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Other - 80%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: YES

Chrysotile - 20%

Asbestos Present:

NOT ANALYZED

Non-Asbestos Material

Lab ID #: 88965 - 23

PA-HM-12A

Cust. #: Material:

Stone Linoleum

Location:

Appearance: white, fibrous, nonhomogenous

Layer:

of

Lab ID #:

88965 - 24 PA-HM-12B

Cust. #: Material:

Stone Linoleum

Location:

Appearance: Layer:

of

Asbestos Present: NO

No Asbestos Observed

Cellulose - 90%

Other - 10%

Cust. #: Material:

Lab ID #:

White 1x1 Ceiling Tile

Location:

Appearance: brown, fibrous, homogenous

Layer:

of

88965 - 25

PA-HM-13A

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

Cellulose - 90%

Other - 10%

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 26

PA-HM-13B

Cust. #: Material:

White 1x1 Ceiling Tile

Location:

Appearance: brown,fibrous,homogenous

Layer:

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 100%

Lab ID #: Cust. #:

88965 - 27 PA-HM-14A

Material:

Cove Base

Location:

Appearance: brown,nonfibrous,homogenous

Layer:

of

Lab ID #:

88965 - 27a

Cust. #:

PA-HM-14A

Material:

Mastic

Location:

Appearance: yellow,nonfibrous,homogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

of 2

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting

P.O. Box 13216 Lansing, MI 48901 ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

02/25/20 02/28/20

Date Reported:

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 88965 - 28

Cust. #: PA-HM-14B

Material: Cove Base

Location:

Appearance: brown, nonfibrous, homogenous

Layer:

Lab ID #: 88965 - 28a

Cust. #: PA-HM-14B

Mastic Material:

Location:

Appearance: yellow,nonfibrous,homogenous

of Layer:

Lab ID #: 88965 - 29

Cust. #: PA-HM-15A

Material: House Window Glazing

Location:

Appearance: beige,nonfibrous,homogenous

Layer: of

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Other - 100%

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

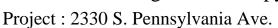
Cellulose - 1%

Other - 99%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)





Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 30

PA-HM-15B

Asbestos Present: NO No Asbestos Observed

Cellulose - 1% Other - 99%

Other - 100%

Material:

House Window Glazing

Location:

Appearance: beige, nonfibrous, homogenous

Layer:

of

88965 - 31

Lab ID #:

Cust. #: Material: PA-HM-16A Sink Undercoat

Location:

Appearance: black,nonfibrous,homogenous

of Layer:

Asbestos Present: NO

Chrysotile - Trace

POINT COUNT RESULT

Lab ID #:

88965 - 32

PA-HM-16B Cust. #:

Material: Sink Undercoat

Location:

Appearance: black,nonfibrous,homogenous

Layer: of

Asbestos Present: **NO** 

Chrysotile - Trace

Other - 100%

POINT COUNT RESULT

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 20%

Other - 80%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 33

Cust. #:

PA-HM-17A

Material:

Drywall

Location:

Appearance: white, fibrous, nonhomogenous

Layer:

88965 - 33a

PA-HM-17A

Asbestos Present: NO Chrysotile - 0.50%

Cellulose - 1% Other - 98.50%

Cellulose - 20%

Other - 80%

Cust. #: Material:

Lab ID #:

Joint Compound

Location: Appearance: white, nonfibrous, homogenous

Layer: of POINT COUNT RESULT

Asbestos Present: NO

No Asbestos Observed

Lab ID #:

88965 - 34

Cust. #:

PA-HM-17B

Material:

Drywall

Location:

Appearance: white, fibrous, nonhomogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

of

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Cellulose - 1%

Other - 99%

Other - 100%

Other - 100%

Lab ID #: 88965 - 34a Cust. #: PA-HM-17B Material:

Joint Compound

Location:

Appearance: white, nonfibrous, homogenous

Layer:

88965 - 35 Lab ID #:

Cust. #: PA-HM-18A

Material: Concrete Location: Basement

Appearance: grey,nonfibrous,homogenous

Layer: of

Lab ID #: 88965 - 36

PA-HM-18B Cust. #:

Material: Concrete Location: Basement

Appearance: grey,nonfibrous,homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

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ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Other - 100%

Other - 100%

Cellulose - 1%

Other - 99%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #: 88965 - 37

PA-HM-19A

Material: Concrete Location: Crawlspace

Appearance: grey,nonfibrous,homogenous

Layer:

of

Lab ID #:

Cust. #:

88965 - 38

Cust. #:

PA-HM-19B

Material:

Concrete

Location: Crawlspace

Appearance: grey,nonfibrous,homogenous of Layer:

Lab ID #: 88965 - 39

Cust. #:

PA-HM-20A

Material:

Window Glazing

Location: Basement

Appearance: beige,nonfibrous,homogenous

Layer:

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)





Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 1%

Other - 99%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #:

88965 - 40

PA-HM-20B

Material:

Window Glazing

Location: Basement

Appearance: beige, nonfibrous, homogenous

Layer:

of

Asbestos Present: NO No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Hair - 2%

Other - 98%

Lab ID #: Cust. #:

88965 - 41 PA-HS-01A

Material:

Plaster Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer:

of

Lab ID #:

88965 - 41a

Cust. #:

PA-HS-01A

Material:

Plaster Base Coat

Location:

Appearance: grey,fibrous,homogenous

For Layered Samples, each component will be analyzed and reported separately.

Layer:

2 of

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Other - 100%

Lab ID #: 88965 - 42 Cust. #: PA-HS-01B Material:

Plaster Skim Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer: of

Lab ID #: 88965 - 42a

Cust. #: PA-HS-01B Plaster Finish Coat

Material: Location:

Appearance: red,nonfibrous,homogenous

Layer: of

Lab ID #: 88965 - 42b PA-HS-01B Cust. #:

Material: Plaster Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer: 3 of Non-Asbestos Material

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO Other - 100%

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

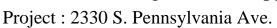
Hair - 2% Other - 96%

Cellulose - 2%

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)





Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

02/25/20

Date Reported:

Other - 100%

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 43

PA-HS-01C

Cust. #: Material:

Plaster Skim Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer:

of

Asbestos Present: NO

No Asbestos Observed

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Hair - 2%

Other - 98%

Lab ID #: Cust. #:

88965 - 43a PA-HS-01C

Material:

Plaster Finish Coat

Location:

Appearance: blue,nonfibrous,homogenous

Layer: of

88965 - 43b

Lab ID #: Cust. #:

PA-HS-01C

Material:

Plaster Base Coat

Location:

Appearance: grey,fibrous,homogenous

Layer:

3 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

# Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

02/25/20

Date Reported:

02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #:

88965 - 44

Cust. #:

PA-HS-01D

Material:

Plaster Finish Coat

Location:

Appearance: red,nonfibrous,homogenous

Layer:

Lab ID #:

88965 - 44a

Cust. #:

PA-HS-01D Plaster Base Coat

Material:

Location: Appearance: grey,fibrous,homogenous

Layer:

of

Lab ID #:

88965 - 45

Cust. #:

PA-HS-01E Plaster Finish Coat Material:

of

Location:

Appearance: beige,nonfibrous,homogenous

Layer:

Asbestos Present: NO

No Asbestos Observed

Other - 100%

Asbestos Present: NO No Asbestos Observed

Hair - 2% Other - 98%

Other - 99.75%

Asbestos Present: **NO** 

Chrysotile - 0.25%

POINT COUNT RESULT

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

## Test Method, Polarized Light Microscopy (PLM)



Project: 2330 S. Pennsylvania Ave.

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216

Lansing, MI 48901

ARI Report # 20-88965 Date Collected: 02/14/20 Date Received: 02/21/20 Date Analyzed: 02/25/20 Date Reported: 02/28/20

Sample Information

Asbestos Type/Percent

Non-Asbestos Material

Lab ID #: 88965 - 45a Cust. #: PA-HS-01E Material: Plaster Base Coat Asbestos Present: NO No Asbestos Observed

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

Hair - 2% Other - 98%

Other - 100%

Other - 100%

Location:

Appearance: grey,fibrous,homogenous

Layer:

Lab ID #:

88965 - 46

Cust. #:

PA-HS-02A

Material:

Wallboard Plaster Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer: of

Lab ID #: 88965 - 46a

PA-HS-02A Cust. #:

Plaster Base Coat Material:

Location:

Appearance: grey,nonfibrous,homogenous

Layer: 2 of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

## Test Method, Polarized Light Microscopy (PLM)





Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

ARI Report #

20-88965

Date Collected: Date Received:

02/14/20 02/21/20

Date Analyzed:

02/25/20

Date Reported:

Other - 100%

Other - 100%

Other - 100%

02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #:

88965 - 47

Cust. #:

PA-HS-02B

Material:

Wallboard Plaster Finish Coat

Location:

Appearance: white, nonfibrous, homogenous

Layer:

88965 - 47a

Lab ID #: Cust. #:

PA-HS-02B

Material:

Plaster Base Coat

Location:

Appearance: grey,nonfibrous,homogenous

Layer:

of

Lab ID #:

88965 - 48

Cust. #: Material: PA-HS-02C

Location:

Wallboard Plaster Base Coat

For Layered Samples, each component will be analyzed and reported separately.

Appearance: grey,nonfibrous,homogenous

Layer:

of

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

## Test Method, Polarized Light Microscopy (PLM)





Project: 2330 S. Pennsylvania Ave.

Report To:

Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901 ARI Report #

20-88965

Date Collected:
Date Received:

02/14/20 02/21/20

Date Analyzed: Date Reported:

Cellulose - 20%

Other - 80%

Cellulose - 1%

Cellulose - 1%

Other - 99%

Other - 99%

02/25/20 02/28/20

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: NO

No Asbestos Observed

No Asbestos Observed

No Asbestos Observed

Non-Asbestos Material

Lab ID #: Cust. #: 88965 - 48a

PA-HS-02C

Drywall

Material: Location:

Appearance: white, fibrous, nonhomogenous

Layer: 2

01 2

Lab ID #:

88965 - 49

Cust. #: F Material: F

PA-HM-21A Patch Glazing

Location:

Appearance: white, nonfibrous, homogenous

Layer: 1

Lab ID #:

88965 - 50

of

Cust. #:

PA-HM-21B

Material:

Patch Glazing

Location:

Appearance: white,nonfibrous,homogenous

Layer: 1

of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the US Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

Fax: 734-449-9991 E-mail: apexresearch@chartermi.net Lab Use Only Log-In

Fax: (888) 448-8739 Client Name: Red Cedar Consulting City, St., Zip: Lansing, MI 48901 PO Box 13216 **Phone:** (888) 449-4566 Address:

Project: 1330 S. Pearstown in the Project #:

Date of Survey: 2-14-20

Contact Person: Aaron Paquet

labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM. Turn Around Times: (Circle One)

Soil PCM Paint Point Count Air Wipe Asbestos: Bulk Lead: Bulk 24 hour 72 hour

Other BioSIS Tape

Bulk

Mold:

Other: 5-day

48 hour

Rush

Viable

EPA Level II **Bulk/NOB AHERA 7400** TEM: (TTP) All Samples

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
	24-you-014	House - Assort Shisle			
7	1 013	h l			
*	02A	Concerte - Front Fouth			
	0.73	17 61			1
	h20	Felt Paper			
:	038	11 /1			
	BHB	Vassa Barrier			
	240	11 11			
	P50	Comme - 45 short Shirle			
of	550	, , , , , , , , , , , , , , , , , , , ,			
	J 06A	Courage Consorte			

Received by: Relinquished by:

Date:

Relinquished by:

Received @ APEX Research Received by: Steve Wales

02/21/20 10:01:57

Rev: 12/03

Date:

# xəqA

88965 2



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Fax: 734-449-9991 E-mail: apexresearch@chartermi.net Lab Use Only Log-In the.

Report

Client Na	ame:	Client Name: Red Cedar Consulting	nsulting		Date of Survey: 2-14-70	2-14-20
Address:		PO Box 13216		-	Project: 250	Project: 230 S. Pennsylvm's
City, St.,	Zip:	City, St., Zip: Lansing, MI 48901	48901		Project #:	
Phone: (888) 449-4566	(888)4	49-4566	Fax: (888) 448-8739	39	Contact Person: Aaron Paquet	Aaron Paquet
Turn.	Aro	und Tim	Turn Around Times: (Circle One)	LM EPA 600	labdata@redcedarce PLM EPA 600, PC all samples with a detection of	labdata@redcedarc

Fax:	Fax: (888) 448-8739	448-8	739	1		Con	ıtacı	Contact Person: Aaron Paquet	n: A	aroi	n Pac	net dred	7	15	ָר ה	) C
(Ciu	(Circle One)		PLM	EPA	600,	PC	a11	PLM EPA 600, PC all samples with a detection of <5% ACM.	wit]	g d	dete	ction	of	12% 12%	CM.	) :

		Viable	
PCM	Paint Soil	Other	EPA Level II
Point Count	Air	BioSIS	Bulk/NOB EI
Wipe	Wipe	Tape	
Asbestos: Bulk x	Bulk	: Bulk	. AHERA 7400
Asbest	Lead:	Mold:	TEM:
		(	- (TTP) All Samples
74 P.C	24 mom	/2 nour	-dar
D.;;t	Kusii	48 nour	Other: 5-day

	Client ID#	Material/Location	Volume	Area	Results
74-14	14-4M-66B	Course - Conste.			
_	A10	Storm withou Clush			
	51/0	) : 1			
	SA	(guerose two-dow plating			
	980				
	89A	Brass Liberan		and the second second	
	240	1. (			
	to.A	Burgand 12×12 UFT ML			And the second s
	<b>श्रि</b> ०१	11			
	414	Fiberboard			
~	118	1.1			

<u>}</u>	Received by:	Date: 27-70
0	Relinquished by:	Date: 7-20-70

Relinquished by: Date:

Received @ APEX Research Received by: Heve Talley

02/21/20 10:01:57

88965 3 # xəqA



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APEX RESEAROH	Lab Use Only Log-In
0	-

Log-In_	Report			ing.net ACM.					
	na Ale			darconsult n of <5% <i>l</i>		Soil	1100	Viable	
Date of Survey: 2-14-20	Project: 25305. Temsylvania Nac.		Contact Person: Aaron Paquet	labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM.	at PCM	Doint	I amit	Other	EPA Level II
f Survey:	t: 2330	t#:	t Person:	samples wi	Point Count	.:	IIIV	BioSIS	Bulk/NOB
Date o	Projec	Project #	Contac	600, PC all	Wipe	11/500	adı w	Tape	
			3-8739	PLM EPA	: Bulk ×	,;;t	Duik	Bulk	AHERA 7400
ing			Fax: (888) 448-8739	(Circle One)	Asbestos: Bulk	-	Leau:	Mold:	TEM:
Client Name: Red Cedar Consulting	PO Box 13216	ity, St., Zip: Lansing, MI 48901	Fa.	Turn Around Times:					TTP) All Samples
Red Ce	PO Box	Lansi	449-456	pund		ш	н	(	E)
Name:	SS:	st., Zip:	hone: (888) 449-4566	n Arc		24 hour	72 hour		ther: 5 day
Client	Address:	lity, S	hone	Luri		qsn;	8 hour		Other:

Lab ID#	Client ID#	Material/Location	Volume	Area	Results
23	PA-HM-12A	Stareldoleun			
h	128	11 11			
25	13.4	white hal cr			
972	13.5	וו			
22	421	Tove Buse & Master			
\$2	8hl	1 1			
67	42	House wirdow Glowing			
30	15,3	١١ ١١			
14	ASI	Surk Lundercoat			
26	891	11			
u	AC1 6	Drund & Compound			

Received by: Relinquished by: Date : 7 12-73

Relinquished by:

Date:

Received by: Akke Market Received @ APEX Research 02/21/20 10:01:57

Rev: 12/03

Page / 88965 # xəqA



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

Fax: 734-449-9991 E-mail: apexresearch@chartermi.net Lab Use Only

Client Name:	ıme:	Red Cedar Consulting	nsulting			Date of	Survey:_	Date of Survey: 2-14-20	Lab Use Log-In
Address:	•	PO Box 13216				Project	: 2330 5	Project: 2330 S. Pemed vania the	Ale Report
City, St.,	Zip:	City, St., Zip: Lansing, MI 48901	48901			Project #:	: #	•	
Phone: (888) 449-4566	(888)4	49-4566	Fax: (888) 448-8739	88) 448-	.8739	Contact	Person:	Contact Person: Aaron Paquet	arketering.
Turn 4	Aro	Turn Around Times:		(Circle One)	PLM EPA 6	00, PC all s	lamples wit	labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM.	consulting.noif <5% ACM.
			•	Asbestos: Bulk	Bulk	Wipe	Point Count	PCM	
Rush	24 hour			Lead:	Bulk	Wipe	Air	Paint Soil	
48 hour	72 hour				Bulk	Tape	BioSIS	Other	Viable
Other : 5-49	19		<u>m</u> les		AHERA 7400	Bulk/NOB		EPA Level II	

	-178 Duyworld & Compound.	18A Bount - concarte	18K 1. 1.	19A Crowlstace concrete	198 11	20A Basemet Wirden Clurk	٠	oig plastor		010	
Client ID #	5127-WH-Hd	184	281	194	193	204	₹ 20B	PA-75-01A	1 015	200	(1)
Lab ID#	hh	25	36	24	38	39	20,	//	42	43	[/h

Date : 2-20-20 Relinquished by Manager Received by: Date : 1-2070

Relinquished by:

Date:

Received @ APEX Research Received by: Alexe Track

02/21/20 10:01:57

Rev: 12/03

88965 5 # xədA



APEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

Fax: 734-449-9991 E-mail: apexresearch@chartermi.net

Lab Use Only	Log-In

Client N	ame:	Client Name: Red Cedar Consulting	ulting			Date of	Date of Survey: 274-20	274-20		Lab Use Log-In
Address:	••	PO Box 13216				Project	Project: 2330 5 Pennal senia the	PenKul san	in Ale	Report
City, St.,	, Zip:	City, St., Zip: Lansing, MI 48901	3901			Project #	#:			
Phone: (888) 449-4566	(888) 4	49-4566	Fax: (888) 448-8739	448-8	739	Contact	Contact Person: Aaron Paquet	ron Paquet		
Turn	Aro	Turn Around Times:	S: (Circle One)		PLM EPA	600, PC all	PLM EPA 600, PC all samples with a detection of <5% ACM.	odata@redced a detection	darconsultin n of <5% AC	ng.net M.
			Asb	Asbestos: Bulk	ulk ×	Wipe	Point Count	PCM		
Rush	24 hour									
			Lea	Lead: Br	Bulk	Wipe	Air	Paint	Soil	
48 hour	72 hour									
	-	(		Mold: B	Bulk	Tape	BioSIS	Other	Viable	ĺ
Other: 2 -dav	day	(TTP) All Samples	es.							

EPA Level II

**Bulk/NOB** 

**AHERA 7400** 

TEM:

Results									
Area		:							
Volume				:	,				
Material/Location	Roste	Wellbound & Plaster	11	11 )1	Datch 6 lung	را ا			
Client ID#	7310-811-PG		1 028	4. OZC	PA-4m-21A	4 MB			
Lab ID#	44	46	47	48	49	20			

Date: 2-7070 Received by:  $\mathcal{L}^{\mathcal{S}}$ Date : 2-70-70 Relinquished by

Relinquished by: Date:

Received the Marcy Received @ APEX Research

02/21/20 10:01:57

Rev: 12/03

## Test Method, Polarized Light Microscopy (PLM)



20-89470

Project: 2330 S Pennsylvania Ave Project #:

Report To: Mr. Aaron Paquet Red Cedar Consulting P.O. Box 13216 Lansing, MI 48901

Date Collected: 03/27/20 Date Received: 03/30/20 Date Analyzed: 03/31/20 Date Reported: 03/31/20

ARI Report #

Other - 100%

Other - 100%

Other - 100%

Sample Information

Asbestos Type/Percent

Asbestos Present: NO

Asbestos Present: NO

Asbestos Present: **NO** 

Non-Asbestos Material

Lab ID #: 89470 - 1

Cust. #:

Material:

PA-HM-22A Concrete Location: Driveway

Appearance: grey,nonfibrous,homogenous

Layer: of

Lab ID #: 89470 - 2

Cust. #: PA-HM-22B Material: Concrete Location: Driveway

Appearance: grey,nonfibrous,homogenous

Layer: 1 of

Lab ID #: 89470 - 3

Cust. #: PA-HM-23A Material: Concrete Location: Filler

Appearance: grey,nonfibrous,homogenous

Layer: of

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.

## Test Method, Polarized Light Microscopy (PLM)



20-89470

ARI Report #

Project : 2330 S Pennsylvania Ave Project #:

Date Collected: Mr. Aaron Paquet 03/27/20 Red Cedar Consulting Date Received: 03/30/20 P.O. Box 13216 Date Analyzed: 03/31/20 Lansing, MI 48901 Date Reported: 03/31/20 Sample Information Asbestos Type/Percent Non-Asbestos Material Lab ID #: 89470 - 4 Asbestos Present: No Other - 100% Cust. #: PA-HM-23B Material: Concrete Location: Filler Appearance: grey,nonfibrous,homogenous Layer: of Asbestos Present: Lab ID #: Cust. #: Material: Location: Appearance: Layer: of Lab ID #: Asbestos Present: Cust. #: Material: Location: Appearance: Layer:

For Layered Samples, each component will be analyzed and reported separately.

Robert T. Letarte Jr., Laboratory Director

Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested and to insure the integrity of the results, may only be reproduced in full. This certificate must not be used by the customer to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. APEX Research Inc. is not responsible for the accuracy of the results for layered samples or samples comprising multiple materials. Liability limited to cost of analysis.



Report To:

# 89470

# AFEX Research, Inc. 11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990



Lab Use Only Log-In labdata@redcedarconsulting.net PLM EPA 600, PC all samples with a detection of <5% ACM. Project: 2330 S. Pensylvania Date of Survey: 3,27,23 Fax: 734-449-9991 Contact Person: Aaron Paguet E-mail: apexresearch@chartermi.net Project #: Fax: (888) 448-8739 Turn Around Times: (Circle One) Client Name: Red Cedar Consulting City, St., Zip: Lansing, MI 48901 PO Box 13216 (888)449-4566 Address: Phone:

,	Results
evel II	Area
EPA Level II	Volume
Bulk/NOB	n
AHERA 7400	Material/Location
TEM:	Ma
) [	Client ID#
- 1 - T	Lab ID#

Viable

Other

BioSIS

Tape

Bulk

Mold:

(TTP) All Samples

Other: 6 Dry

Soil

Paint

Wipe

Bulk

Lead:

24 hour

Rush

72 hour

48 hour

PCM

Point Count

Asbestos: Bulk

Client ID # Material/Location Volume Area Results	Dovise von Concrete		23 A Filler Consists	۲,					Received by: (AC) Relinquished hy:	 Date . Date .	7120. Date: Date:	Date:	Date:	Date:	Date:	Date:	Date:
	PA-4M.O	1	1,	γ →					26	,	,	Date: 3-7-70 Date	-27.70	27.70	-27.70	-71.70	,

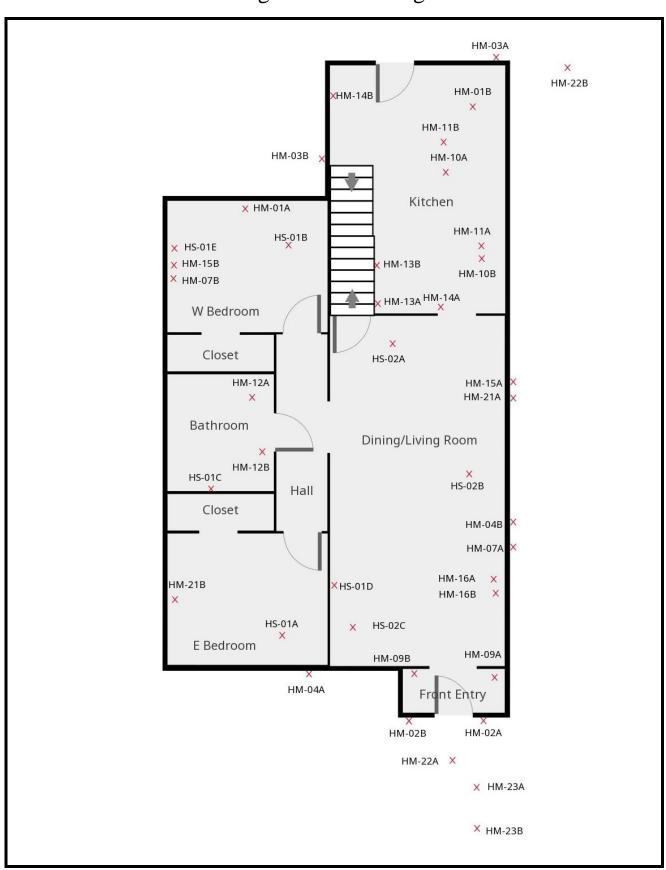
Rev: 12/03

# xədA

# Red Cedar Consulting

Attachment B
Site Diagrams

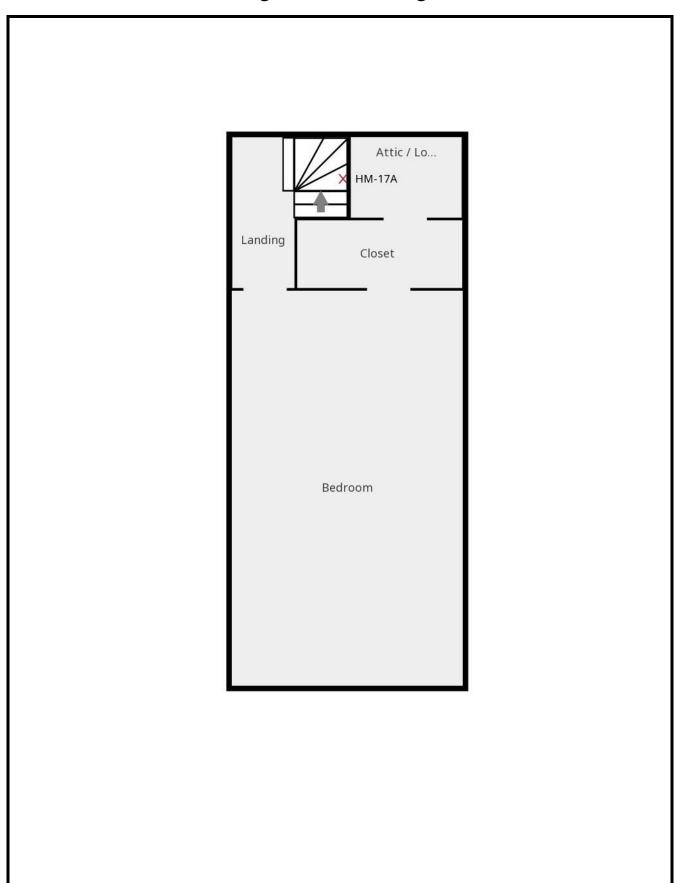
Figure 1a Site Diagram



Note: Figure created by Red Cedar Consulting

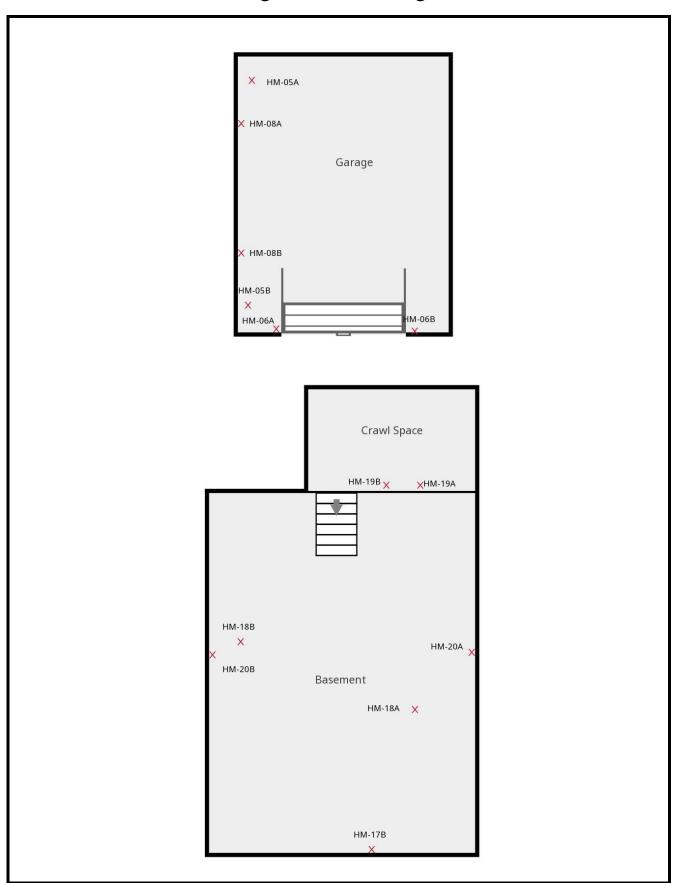
Asbestos Sample Locations 2330 S Pennsylvania Ave. Lansing, MI

Figure 1b Site Diagram



Note: Figure created by Red Cedar Consulting

Figure 1c Site Diagram



Note: Figure created by Red Cedar Consulting

Asbestos Sample Locations 2330 S Pennsylvania Ave. Lansing, MI

# Red Cedar Consulting

# Attachment C ACM Photos



PHOTO: 1 BY: A. Paquet

**SUBJECT:** View of front of the Property.



PHOTO: 2 BY: A. Paquet

**SUBJECT:** Bathroom Stone Linoleum



PHOTO: 3 BY: A. Paquet

**SUBJECT:** Typical HVAC Register

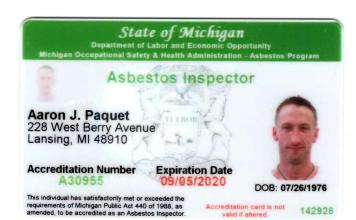


PHOTO: 4 BY: A. Paquet

SUBJECT: Typical Storm Window

## Red Cedar Consulting

Attachment D
Inspector Certifications/ID's







# Red Cedar Consulting

## **Tables**

Table 1 - Summary of Hazardous Materials, 2330 S Pennsylvania Ave., Lansing, Michigan

	Hazardous Materials Description and Location	
Location	Material Description	Quantity
Kitchen	5-Gallon Fuel Container	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2330 S Pennsylvania Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
PA-HM-01A	House Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	1,500 sq. ft.
PA-HM-01B	House Asphalt Shingle	No	M	Category I	ND/ND/ND/ND	Exterior	
PA-HM-02A	Concrete Front Porch	No	M	Category II	ND	Exterior	15 sq. ft.
PA-HM-02B	Concrete Front Porch	No	M	Category II	ND	Exterior	
PA-HM-03A	Felt Paper	Yes	M	Category II	ND	Exterior	750 sq. ft.
PA-HM-03B	Felt Paper	Yes	M	Category II	ND	Exterior	
PA-HM-04A	Vapor Barrier	Yes	M	Category II	ND	Exterior	750 sq. ft.
PA-HM-04B	Vapor Barrier	Yes	M	Category II	ND	Exterior	
PA-HM-05A	Garage Asphalt Shingle	No	M	Category I	ND/ND/ND/ND/ ND	Garage	396 sq. ft.
PA-HM-05B	Garage Asphalt Shingle	No	M	Category I	ND/ND	Garage	
PA-HM-06A	Garage Concrete	No	M	Category II	ND	Garage	220 sq. ft.
PA-HM-06B	Garage Concrete	No	M	Category II	ND	Garage	
PA-HM-07A	Storm Window Glazing	Yes	M	Category II	1.5% CH PC	Living	9 Windows
PA-HM-07B	Storm Window Glazing	Yes	M	Category II	NA	W Bedroom	ACM
PA-HM-08A	Garage Window Glazing	Yes	M	Category II	ND	Garage	2 Windows
PA-HM-08B	Garage Window Glazing	Yes	M	Category II	ND	Garage	
PA-HM-09A	Brown Linoleum	No	M	Category I	ND	Front Entry	21 sq. ft.
PA-HM-09B	Brown Linoleum	No	M	Category I	ND	Front Entry	
PA-HM-10A	Burgundy 12x12 VFT ML	No	M	Category I	ND/ND/ND	Kitchen	205 sq. ft.
PA-HM-10B	Burgundy 12x12 VFT ML	No	M	Category I	ND/ND/ND	Kitchen	
PA-HM-11A	Fiberboard	Yes	M	Category II	ND	Kitchen	205 sq. ft.
PA-HM-11B	Fiberboard	Yes	M	Category II	ND	Kitchen	
PA-HM-12A	Stone Linoleum	No	M	Category I	20%	Bathroom	50 sq. ft.
PA-HM-125B	Stone Linoleum	No	M	Category I	NA	Bathroom	ACM
PA-HM-13A	White 1x1 CT	Yes	M	Category II	ND	Kitchen	205 sq. ft.
PA-HM-13B	White 1x1 CT	Yes	M	Category II	ND	Kitchen	
PA-HM-14A	Cove Base & Mastic	No	M	Category II	ND/ND	Kitchen	60 lin. ft.

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2330 S Pennsylvania Ave., Lansing, Michigan

Sample Number	Sample Description	Friable	Material Type	Material Classification	% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
PA-HM-14B	Cove Base & Mastic	No	M	Category II	ND/ND	Kitchen	
PA-HM-15A	House Window Glazing	Yes	M	Category II	ND	Living	12 Windows
PA-HM-15B	House Window Glazing	Yes	M	Category II	ND	W Bedroom	
PA-HM-16A	Sink Undercoat	No	M	Category II	Trace CH PC	Living	1 Sink
PA-HM-16B	Sink Undercoat	No	M	Category II	Trace CH PC	Living	
PA-HM-17A	Drywall & Compound	No	M	Category II	ND/.05% CH PC	2 <sup>nd</sup> Fl. Hall Wall	250 sq. ft.
PA-HM-17B	Drywall & Compound	No	M	Category II	ND/ND	Basement E Wall	
PA-HM-18A	Bsmt. Concrete	No	M	Category II	ND	Basement	750 sq. ft/
PA-HM-18B	Bsmt. Concrete	No	M	Category II	ND	Basement	
PA-HM-19A	Crawlspace Concrete	No	M	Category II	ND	Crawlspace	120 sq. ft.
PA-HM-19B	Crawlspace Concrete	No	M	Category II	ND	Crawlspace	
PA-HM-20A	Basement Window Glazing	Yes	M	Category II	ND	Basement	5 Windows
PA-HM-20B	Basement Window Glazing	Yes	M	Category II	ND	Basement	
PA-HM-21A	Patch Glazing	Yes	M	Category II	ND	Living	12 Windows
PA-HM-21B	Patch Glazing	Yes	M	Category II	ND	E Bedroom	
PA-HM-22A	Driveway Concrete	No	M	Category II	ND	Exterior	400 sq. ft.
PA-HM-22B	Driveway Concrete	No	M	Category II	ND	Exterior	
PA-HM-23A	Filler Concrete	No	M	Category II	ND	Exterior	100 sq. ft.
PA-HM-23B	Filler Concrete	No	M	Category II	ND	Exterior	
PA-HS-01A	Plaster	No	S	Category II	ND/ND	E Bedroom Ceiling	3,600 sq. ft.
PA-HS-01B	Plaster	No	S	Category II	ND/ND/ND	W Bedroom Ceiling	
PA-HS-01C	Plaster	No	S	Category II	ND/ND/ND	Bathroom Wall	
PA-HS-01D	Plaster	No	S	Category II	ND/ND	Living Wall	
PA-HS-01E	Plaster	No	S	Category II	.25% CH PC/ND	W Bedroom Wall	
PA-HS-02A	Wallboard & Plaster	No	S	Category II	ND/ND	Living	500 sq. ft.
PA-HS-02B	Wallboard & Plaster	No	S	Category II	ND/ND	Living	
PA-HS-02C	Wallboard & Plaster	No	S	Category II	ND/ND	Living	

**Notes:** 

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2330 S Pennsylvania Ave., Lansing, Michigan

Materi	al Types	Abbrevi	<u>iations</u>
M	= Miscellaneous building material	NQ	= Not quantified
TSI	= Thermal System Insulation	NA	= Not Analyzed
S	= Surfacing Material	ND	= Not detected. Laboratory result is less than 1 % asbestos
PC	= Point Count Analysis	lin. ft.	= linear feet
CH	= Chrysotile Asbestos	sq. ft.	= square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 2330 S Pennsylvania Ave., Lansing, Michigan

Asbestos	Containing Material Description and I	ocation			
Location	Material Description	Friable	Condition	Material Type	Approx. Quantity
Living (1 register, 10 sq. ft.) E Bedroom (1 register, 10 sq. ft.) W Bedroom (1 register, 10 sq. ft.) Bathroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	40 sq. ft.

## **Notes:**

Material Types

M = Miscellaneous building material TSI = Thermal System Insulation

= Surfacing Material

**Abbreviations** 

lin. ft. = linear feet

= square feet sq. ft.

Table 4 - Summary of All Asbestos Containing Materials, 2330 S Pennsylvania Ave., Lansing, Michigan

Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	Approx. Quantity
Bathroom	Stone Linoleum		No	50 sq. ft.
		Total		50 sq. ft.
Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	Approx. Quantity
Living (1 register, 10 sq. ft.) E Bedroom (1 register, 10 sq. ft.) W Bedroom (1 register, 10 sq. ft.) Bathroom (1 register, 10 sq. ft.)	HVAC Duct Wrap		Yes	40 sq. ft.
		Total		40 sq. ft.
Interior - Asbestos Containing Materials				
Location	<b>Material Description</b>		Friable	Approx. Quantity
Living (5 storm windows 28" wide x 54" tall)	Glazing		Yes	5 Windows
E Bedroom (1 storm window 34" wide x 54" tall)	Glazing		Yes	1 Window
W Bedroom (2 storm windows 28" wide x 54" tall)	Glazing		Yes	2 Windows
Kitchen (1 storm window 40" wide x 54" tall)	Glazing		Yes	1 Window
		Total		9 Windows

### **Notes:**

## Abbreviations

lin. ft. = linear feet sq. ft. = square feet

**Shaded/Bolded** = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.