



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
1556 Ballard St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1556 Ballard St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1556 Ballard St, Lansing, MI
Parcel #	33-01-01-10-153-011
No. Stories	2
Square Footage (approx.)	1,250 SF
Siding	Vinyl
Basement	Yes
Garage	No



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-1, RM-5, RM-9	Vent wrap	Friable	50% Chrysotile	240 SF

Hazardous Materials		
Location	Material Description	Quantity
** No hazardous materials were found on site**		

TECHNICAL SKILL.
CREATIVE SPIRIT.

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1	Thermostat	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 12, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-

acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twelve (12) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-two (32) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) homogenous materials (sample 9-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twelve (12) homogenous materials collected as part of the ACM survey, one (1) homogenous material contained asbestos greater than 1% (sample 9-1) with this one (1) homogenous material being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

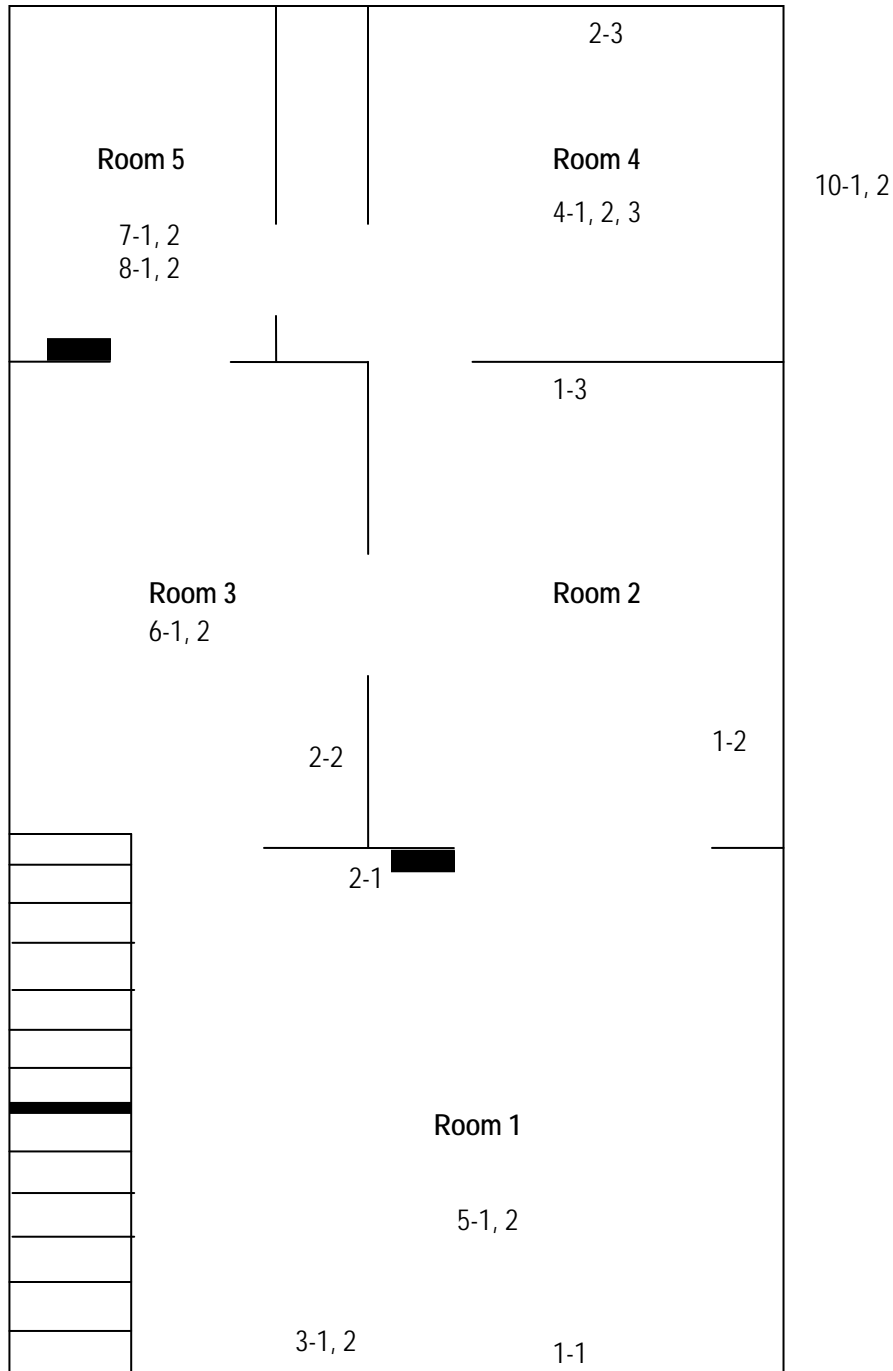
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1556 Ballard St

Date: December 15, 2017

Drawing not to scale

1st Floor



#-# = Asbestos Sample

■ = Vent with wrap



TECHNICAL SKILL.
CREATIVE SPIRIT.

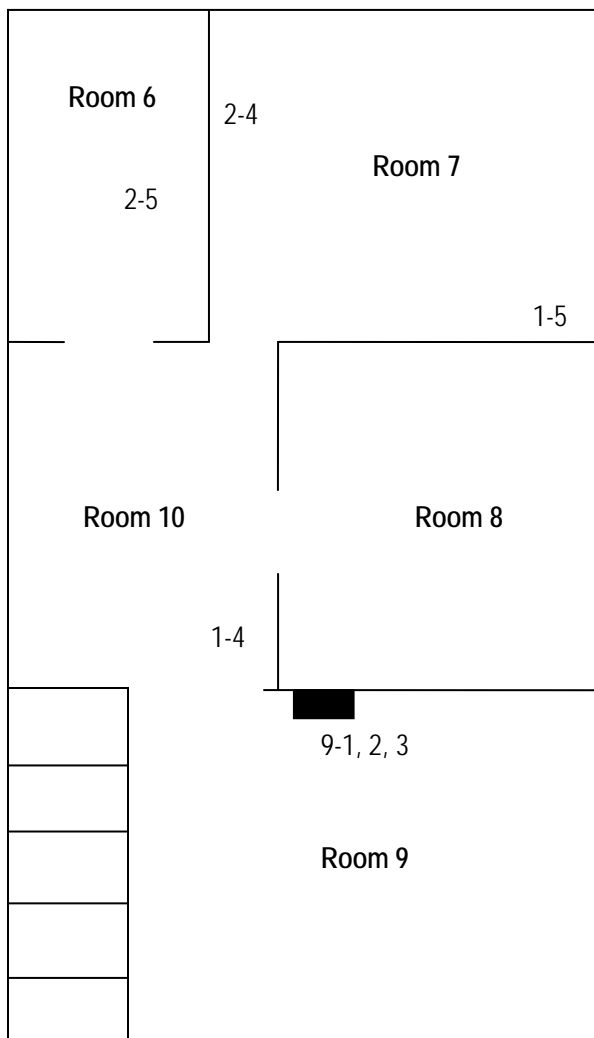
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Address: 1556 Ballard St

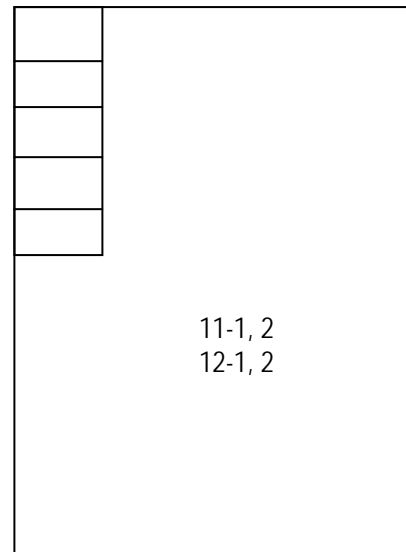
Date: December 15, 2017

Drawing not to scale

2nd Floor



Basement



#-# = Asbestos Sample

■ = Vent with wrap

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1556 Ballard St.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-2	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-2	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-10	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-7	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-1	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-3	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-4	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-7	2	AS 2-4	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-6	2	AS 2-5	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	1100 SF
RM-1	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	185 SF
RM-1	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	185 SF
RM-4	1	AS 4-1	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 4-2	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 4-3	HA-4	Textured ceiling	Friable	Good	Miscellaneous	No	No	100 SF
RM-1	1	AS 5-1	HA-5	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	320 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1556 Ballard St.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 5-2	HA-5	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-3	1	AS 6-1	HA-6	Dark faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	130 SF
RM-3	1	AS 6-2	HA-6	Dark faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	130 SF
RM-5	1	AS 7-1	HA-7	Faux stone Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 7-2	HA-7	Faux stone Linoleum	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 8-1	HA-8	Tan 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 8-2	HA-8	Tan 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-9	2	AS 9-1	HA-9	Vent wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	240 SF
RM-9	2	AS 9-2	HA-9	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	240 SF
RM-9	2	AS 9-3	HA-9	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	240 SF
Roof	E	AS 10-1	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	620 SF
Roof	E	AS 10-2	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	620 SF
Basement	B	AS 11-1	HA-11	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 11-2	HA-11	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 12-1	HA-12	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	B	AS 12-2	HA-12	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	4 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 1556 Ballard St.
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



1556 Ballard St, Front of House



Back of House

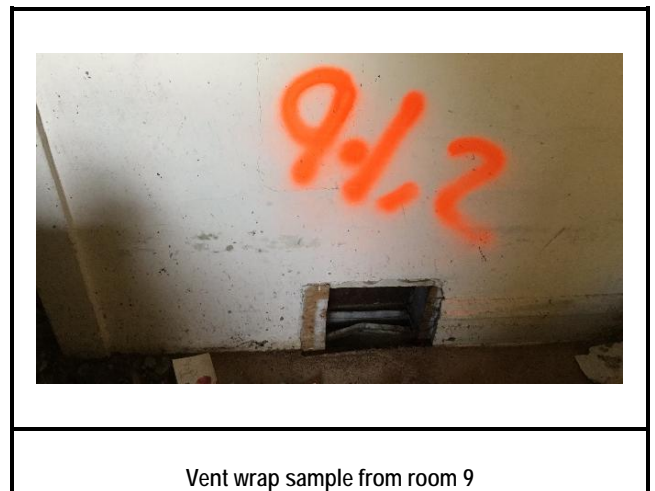
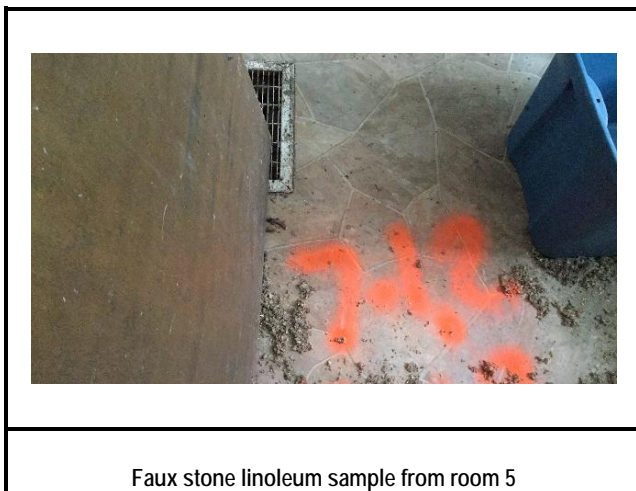
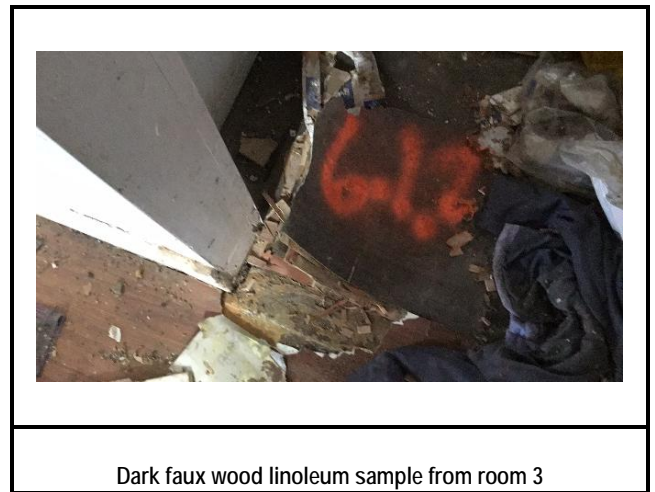
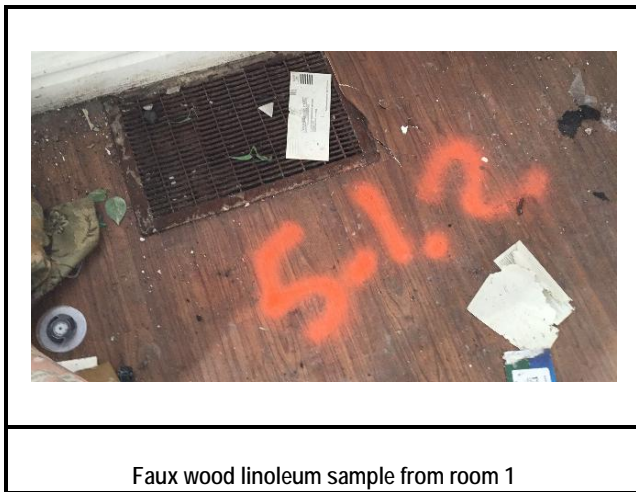
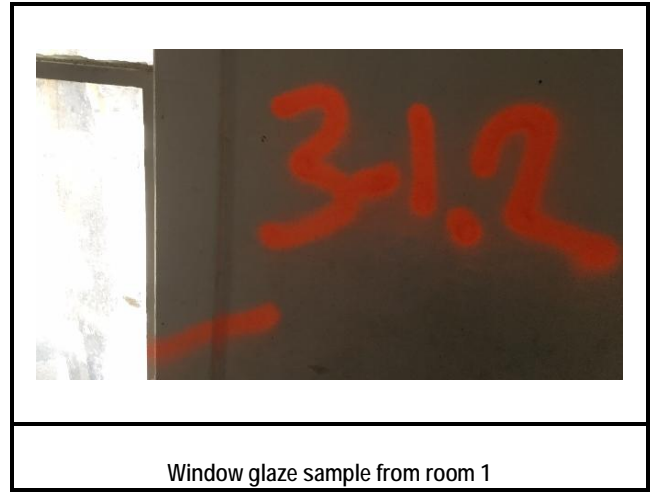
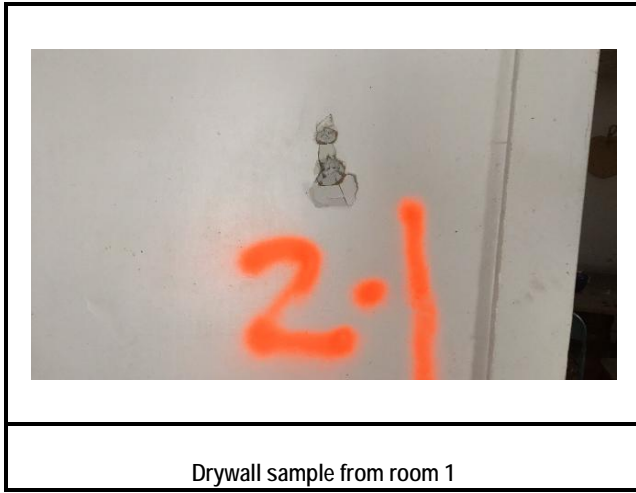


Side of House



Side of House

Sample Photos



ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 1556 Ballard St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 01 Cust. #: AS1-5 Material: Plaster/Mortar Location: Room 7 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - <1%	Hair - 2% Other - >97%
Lab ID #: 73720 - 02 Cust. #: AS2-4 Material: Drywall Location: Room 7 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73720 - 03 Cust. #: AS1-4 Material: Plaster Location: Room 10 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - <1%	Hair - 2% Other - >97%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 1556 Ballard St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 04 Cust. #: AS9-1 Material: Vent Wrap Location: Room 9 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 50%	Other - 50%
Lab ID #: 73720 - 05 Cust. #: AS9-2 Material: Vent Wrap Location: Room 9 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73720 - 06 Cust. #: AS2-5 Material: Drywall Location: Room 6 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 25% Other - 75%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 1556 Ballard St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 07 Cust. #: AS10-1 Material: Shingles Location: Roof Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73720 - 08 Cust. #: AS10-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73720 - 09 Cust. #: AS1-1 Material: Plaster/Mortar Location: Room 1 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - <1%	Hair - 2% Other - >97%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 1556 Ballard St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 10 Cust. #: AS1-2 Material: Plaster Location: Room 2 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO Chrysotile - <1%	Hair - 2% Other - >97%
Lab ID #: 73720 - 11 Cust. #: AS1-3 Material: Plaster Location: Room 2 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73720 - 12 Cust. #: AS2-1 Material: Drywall Location: Room 1 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

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

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Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 13 Cust. #: AS2-2 Material: Drywall Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 73720 - 14 Cust. #: AS2-3 Material: Drywall Location: Room 4 Appearance: white,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73720 - 15 Cust. #: AS3-1 Material: Window Glaze Location: Room 1 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 16 Cust. #: AS3-2 Material: Window Glaze Location: Room 1 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 17 Cust. #: AS4-1 Material: Textured Ceiling Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 18 Cust. #: AS4-2 Material: Textured Ceiling Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Robert T. Letarte Jr., Laboratory Director

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Project: 1556 Ballard St
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ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 19 Cust. #: AS4-3 Material: Textured Ceiling Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 20 Cust. #: AS5-1 Material: Faux Wood Linoleum Location: Room 1 Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73720 - 21 Cust. #: AS5-2 Material: Faux Wood Linoleum Location: Room 1 Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

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

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Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 22 Cust. #: AS6-1 Material: Dark Faux Wood Linoleum Location: Room 3 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 73720 - 23 Cust. #: AS6-2 Material: Dark Faux Wood Linoleum Location: Room 3 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 73720 - 24 Cust. #: AS7-1 Material: Faux Stone Linoleum Location: Room 5 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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

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Test Method, Polarized Light Microscopy (PLM)



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Project # I1440002

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Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 25 Cust. #: AS7-2 Material: Faux Stone Linoleum Location: Room 5 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 73720 - 26 Cust. #: AS8-1 Material: Tan 12x12 Tile Location: Room 5 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 27 Cust. #: AS8-2 Material: Tan 12x12 Tile Location: Room 5 Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Test Method, Polarized Light Microscopy (PLM)



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ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73720 - 28 Cust. #: AS11-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 29 Cust. #: AS11-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73720 - 30 Cust. #: AS12-1 Material: Stack Cement Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Project: 1556 Ballard St
Project # I1440002

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Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73720
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 73720 - 31
Cust. #: AS12-2
Material: Stack Cement
Location: Basement
Appearance: grey, nonfibrous, homogenous
Layer: 1 of 1

Asbestos Present: **NO**
No Asbestos Observed

Other - 100%

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
 Project: 1556 BALLARD ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: _____ TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbstos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-5	RM-7 - Plaster	Bag	HA-1	
2	AS 2-4	RM-7 - Drywall	Bag	HA-2	
3	AS 1-4	RM-10 - Plaster	Bag	HA-1	
4	AS 9-1	RM-9 - Vent wrap	Bag	HA-9	
5	AS 9-2	RM-9 - Vent wrap	Bag	HA-9	
6	AS 2-5	RM-6 - Drywall	Bag	HA-2	
7	AS 10-1	Roof - Shingles	Bag	HA-10	
8	AS 10-2	Roof - Shingles	Bag	HA-10	
9	AS 1-1	RM-1 - Plaster	Bag	HA-1	
10	AS 1-2	RM-2 - Plaster	Bag	HA-1	
11	AS 1-3	RM-2 - Plaster	Bag	HA-1	
12	AS 2-1	RM-1 - Drywall	Bag	HA-2	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17Time/Date: 12/13/17 DEC 13 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73720

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
 Project: 1556 BALLARD ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: _____ TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 2-2	RM-3 - Drywall	Bag	HA-2	
14	AS 2-3	RM-4 - Drywall	Bag	HA-2	
15	AS 3-1	RM-1 - Window glaze	Bag	HA-3	
16	AS 3-2	RM-1 - Window glaze	Bag	HA-3	
17	AS 4-1	RM-4 - Textured ceiling	Bag	HA-4	
18	AS 4-2	RM-4 - Textured ceiling	Bag	HA-4	
19	AS 4-3	RM-4 - Textured ceiling	Bag	HA-4	
20	AS 5-1	RM-1 - Faux wood Linoleum	Bag	HA-5	
21	AS 5-2	RM-1 - Faux wood Linoleum	Bag	HA-5	
22	AS 6-1	RM-3 - Dark faux wood Linoleum	Bag	HA-6	
23	AS 6-2	RM-3 - Dark faux wood Linoleum	Bag	HA-6	
24	AS 7-1	RM-5 - Faux stone Linoleum	Bag	HA-7	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17Time/Date: 12/13/17

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX Research, Inc.

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73720

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 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
 Project: 1556 BALLARD ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 7-2	RM-5 - Faux stone Linoleum	Bag	HA-7	
26	AS 8-1	RM-5 - Tan 12x12 tile	Bag	HA-8	
27	AS 8-2	RM-5 - Tan 12x12 tile	Bag	HA-8	
28	AS 11-1	Basement - Basement cement floor	Bag	HA-11	
29	AS 11-2	Basement - Basement cement floor	Bag	HA-11	
30	AS 12-1	Basement - Stack Cement	Bag	HA-12	
31	AS 12-2	Basement - Stack Cement	Bag	HA-12	

Relinquished By: [Signature]
 Date: 12-13-17

Received By: [Signature]
 Time/Date: 12/13/17

Relinquished By: _____ Received By: _____
 Date: _____ Time/Date: _____

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator

Date

Signature of Owner/Operator

Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey – Revised February 7, 2018
1501 N High St, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1501 N High St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1501 N High St, Lansing, MI
Parcel #	33-01-01-10-153-211
No. Stories	2
Square Footage (approx.)	900 SF
Siding	Vinyl and Asphalt
Basement	Yes
Garage	No



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-5	Window glaze	Non friable	2% Chrysotile	3 Windows

Hazardous Materials		
Location	Material Description	Quantity
Basement	1 Gallon paint can	1

Universal Waste Inventory		
Location	Material Description	Quantity
RM-2, RM-6, RM-8, Basement	Smoke detector	5
RM-2, RM-6, RM-7	CFL bulb	3
RM-2	Thermostat	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 12, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified ten (10) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-five (25) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) homogenous

materials (sample 10-2) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the ten (10) homogenous materials collected as part of the ACM survey, one (1) homogenous material contained asbestos greater than 1% (sample 10-2) with this one (1) homogenous material being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

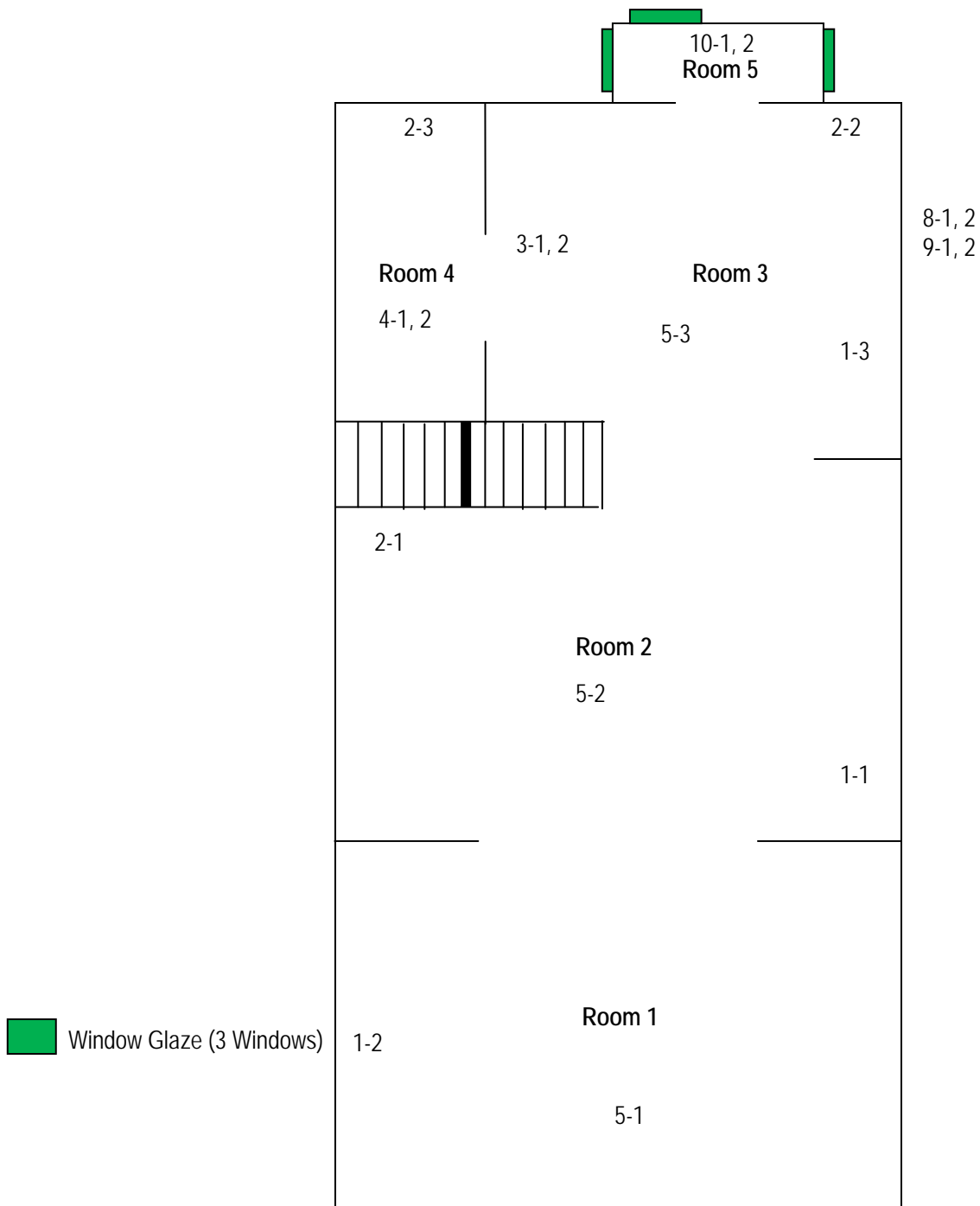
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1501 N High St

Date: December 15, 2017

Drawing not to scale

1st Floor



#-# = Asbestos Sample



TECHNICAL SKILL.
CREATIVE SPIRIT.

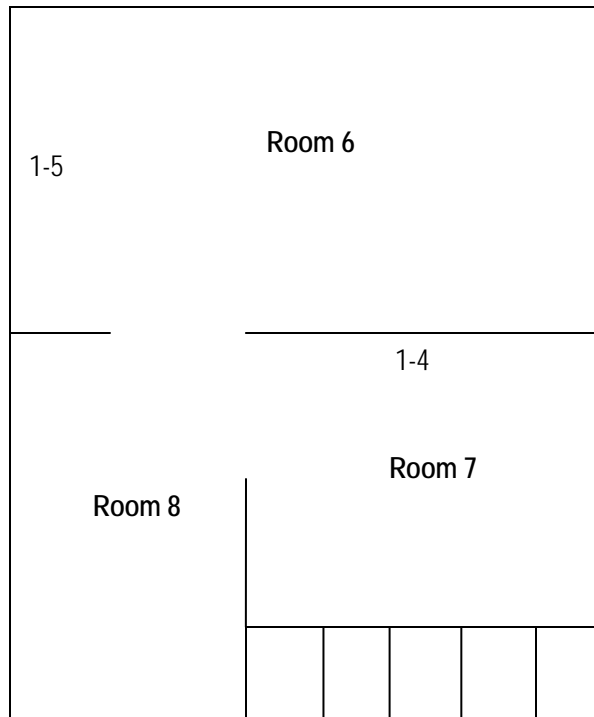
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1501 N High St

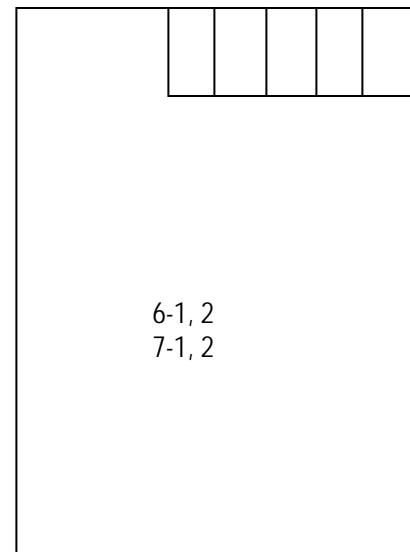
Date: December 15, 2017

Drawing not to scale

2nd Floor



Basement



#-# = Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1501 N High St.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-3	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-7	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-6	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-2	1	AS 2-1	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	900 SF
RM-3	1	AS 2-2	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	900 SF
RM-4	1	AS 2-3	HA-2	Drywall	Non-Friable	Good	Miscellaneous	No	No	900 SF
RM-3	1	AS 3-1	HA-3	White linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-3	1	AS 3-2	HA-3	White linoleum	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 4-1	HA-4	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-4	1	AS 4-2	HA-4	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-1	1	AS 5-1	HA-5	Textured ceiling	Friable	Good	Miscellaneous	No	No	900 SF
RM-2	1	AS 5-2	HA-5	Textured ceiling	Friable	Good	Miscellaneous	No	No	900 SF
RM-3	1	AS 5-3	HA-5	Textured ceiling	Friable	Good	Miscellaneous	No	No	900 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1501 N High St.								
Survey Date		December 12, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Basement	B	AS 6-1	HA-6	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 6-2	HA-6	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 7-1	HA-7	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	3 SF
Basement	B	AS 7-2	HA-7	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	3 SF
Roof	E	AS 8-1	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	350 SF
Roof	E	AS 8-2	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	350 SF
Exterior	E	AS 9-1	HA-9	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1850 SF
Exterior	E	AS 9-2	HA-9	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1850 SF
RM-5	1	AS 10-1	HA-10	Window glaze	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	3 Windows
RM-5	1	AS 10-2	HA-10	Window glaze	Non-Friable	Good	Miscellaneous	Yes	NA	3 Windows

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 1501 N High St.
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-2, RM-6, RM-8, Basement	Smoke detector	5
RM-2, RM-6, RM-7	CFL bulb	3
RM-2	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
Basement	1 Gallon paint can	1
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



1501 N High St, Front of House



Back of House

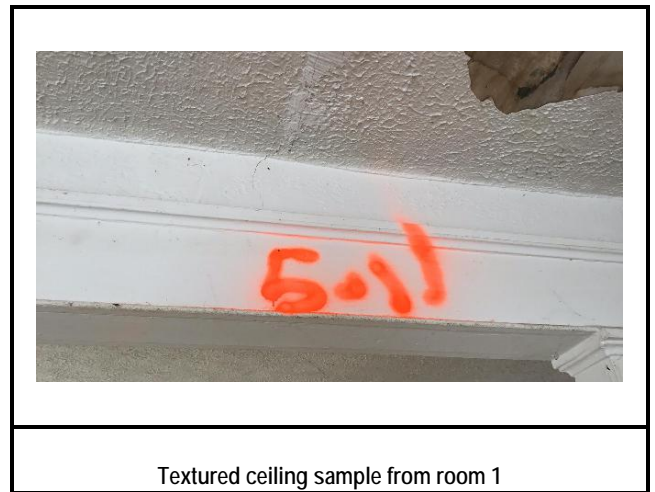
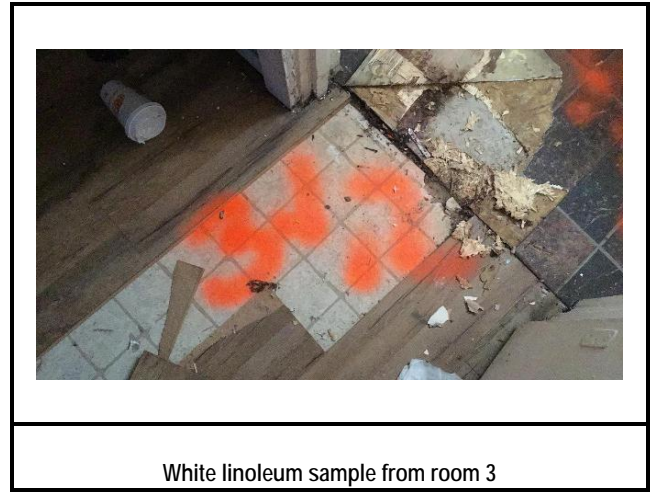
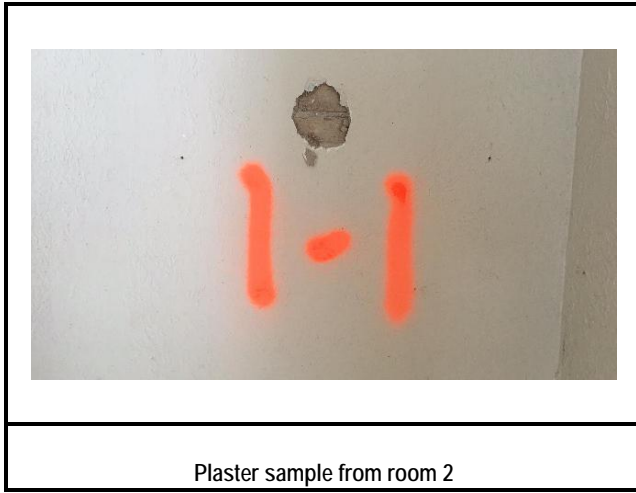


Side of House



Side of House

Sample Photos



ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including but not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1501 N High St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 01 Cust. #: AS1-1 Material: Plaster Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 01a Cust. #: AS1-1 Material: Mortar Location: Room 2 Appearance: white, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73721 - 02 Cust. #: AS1-2 Material: Plaster Location: Room 1 Appearance: grey, nonfibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1501 N High St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 03 Cust. #: AS1-3 Material: Plaster Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 03a Cust. #: AS1-3 Material: Mortar Location: Room 3 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73721 - 04 Cust. #: AS2-1 Material: Drywall Location: Room 2 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1501 N High St
Project # I1440002

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Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 05 Cust. #: AS2-2 Material: Drywall Location: Room 3 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 73721 - 06 Cust. #: AS2-3 Material: Drywall Location: Room 4 Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Other - 90%
Lab ID #: 73721 - 07 Cust. #: AS3-1 Material: White Linoleum Location: Room 3 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 1501 N High St
Project # I1440002

Report To:

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Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 08 Cust. #: AS3-2 Material: White Linoleum Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 08a Cust. #: AS3-2 Material: Mastic Location: Room 3 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73721 - 09 Cust. #: AS4-1 Material: Brown Linoleum Location: Room 4 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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Robert T. Letarte Jr., Laboratory Director

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Project: 1501 N High St
Project # I1440002

Report To:

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Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 10 Cust. #: AS4-2 Material: Brown Linoleum Location: Room 4 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73721 - 11 Cust. #: AS5-3 Material: Textured Ceiling Location: Room 3 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 73721 - 12 Cust. #: AS5-2 Material: Textured Ceiling Location: Room 2 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 1501 N High St
Project # I1440002

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Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 13 Cust. #: AS5-1 Material: Textured Ceiling Location: Room 1 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 14 Cust. #: AS1-4 Material: Plaster Location: Room 7 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 15 Cust. #: AS1-5 Material: Plaster Location: Room 6 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 16 Cust. #: AS8-1 Material: Shingles Location: Roof Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 17 Cust. #: AS8-2 Material: Shingles Location: Roof Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73721 - 18 Cust. #: AS6-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Test Method, Polarized Light Microscopy (PLM)

Project: 1501 N High St
Project # I1440002

Report To:

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2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 19 Cust. #: AS6-2 Material: Basement Cement Floor Location: Basement Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73721 - 20 Cust. #: AS7-1 Material: Stack Cement Location: Basement Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73721 - 21 Cust. #: AS7-2 Material: Stack Cement Location: Basement Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Project: 1501 N High St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73721 - 22 Cust. #: AS9-1 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73721 - 23 Cust. #: AS9-2 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73721 - 24 Cust. #: AS10-1 Material: Window Glaze Location: Room 5 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Project: 1501 N High St
Project # I1440002

Report To:

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Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73721
Date Collected: 12/12/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 73721 - 25
Cust. #: AS10-2
Material: Window Glaze
Location: Room 5
Appearance: grey, nonfibrous, homogenous
Layer: 1 of 1

Asbestos Present: **YES**
Chrysotile - 2%

Other - 98%

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
 Project: 1501 N HIGH ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ 72 Hour 72 Hour
 Other: _____ TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbstos: Asbstos Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-2 - Plaster	Bag	HA-1	
2	AS 1-2	RM-1 - Plaster	Bag	HA-1	
3	AS 1-3	RM-3 - Plaster	Bag	HA-1	
4	AS 2-1	RM-2 - Drywall	Bag	HA-2	
5	AS 2-2	RM-3 - Drywall	Bag	HA-2	
6	AS 2-3	RM-4 - Drywall	Bag	HA-2	
7	AS 3-1	RM-3 - White linoleum	Bag	HA-3	
8	AS 3-2	RM-3 - White linoleum	Bag	HA-3	
9	AS 4-1	RM-4 - Brown Linoleum	Bag	HA-4	
10	AS 4-2	RM-4 - Brown Linoleum	Bag	HA-4	
11	AS 5-3	RM-3 - Textured ceiling	Bag	HA-5	
12	AS 5-2	RM-2 - Textured ceiling	Bag	HA-5	

Relinquished By: [Signature]Received By: [Signature] **RECEIVED**

Relinquished By: _____ Received By: _____

Date: 12-13-17Time/Date: 12/13/17 9:00 **DEC 13 2017**

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73721

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/12/2017 5:00
 Project: 1501 N HIGH ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ 72 Hour 72 Hour
 Other: _____ TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Asbestos Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 5-1	RM-1 - Textured ceiling	Bag	HA-5	
14	AS 1-4	RM-7 - Plaster	Bag	HA-1	
15	AS 1-5	RM-6 - Plaster	Bag	HA-1	
16	AS 8-1	Roof - Shingles	Bag	HA-8	
17	AS 8-2	Roof - Shingles	Bag	HA-8	
18	AS 6-1	Basement - Basement cement floor	Bag	HA-6	
19	AS 6-2	Basement - Basement cement floor	Bag	HA-6	
20	AS 7-1	Basement - Stack Cement	Bag	HA-7	
21	AS 7-2	Basement - Stack Cement	Bag	HA-7	
22	AS 9-1	Exterior - Asphalt siding	Bag	HA-9	
23	AS 9-2	Exterior - Asphalt siding	Bag	HA-9	
24	AS 10-1	RM-5 - Window glaze	Bag	HA-10	

Relinquished By: [Signature]Date: 12-13-17

Revision R4 Date: May/2017

Received By: [Signature] RECEIVED Relinquished By: _____ Received By: _____Time/Date: 12/13/17 DEC 13 2017 Date: _____ Time/Date: _____

APEX RESEARCH



Customer Name:	MANNIK & SMITH GROUP		
Address:	2193 Association Drive, Suite 200		
City, St., Zip:	Okemos, MI, 48864		
Phone:	(517) 316-9232	Fax:	(517) 316-9233

Date of Survey:	12/12/2017 5:00
Project:	1501 N HIGH ST
Project #	I1440002
Contact Person:	Charlie Bush
Email:	cbush@manniksmithgroup.com

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Time: (circle one)***Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ 72 Hour _____
 Other: _____ TTP yes / no _____
 (Test Till Positive)

Samples received after 3pm
logged in next morning

Circle analyses required, indicate type and quantity

Asbstos:	Bulk <u>X</u>	Wipe _____	Point Count _____	PCM _____
Lead / Cad / Chrome:	Air _____	Paint _____	Wipe (ASTM) _____	Bulk _____
Mold:	Bulk _____	Air _____	BioSIS _____	Tape _____
TEM:	Bulk _____	NIOSH _____	EPA Level II _____	Other _____

[illegible]

Relinquished By: [Signature] (cc)

Date: 12-13-17

Revision R4 Date: May/2017

Received By: S. Allen

Time/Date: 12/13/17 DEC 13 2017

Relinquished By: _____ Received By: _____

Date: _____ Time/Date: _____

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
1213 High St, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1213 High St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1213 High St, Lansing, MI
Parcel #	33-01-01-10-157-191
No. Stories	2
Square Footage (approx.)	1,200 SF
Siding	Metal
Basement	Yes
Garage	Yes



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-9	Vent wrap	Friable	65% Chrysotile	200 SF

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1, RM-2, RM-4, RM-6, RM-7, RM-10, Basement	CFL bulb	11
RM-3, RM-4, RM-6, RM-7, RM-8, Basement	Smoke detector	6
Basement	Fluorescent bulb	3

TECHNICAL SKILL.
CREATIVE SPIRIT.

Hazardous Materials		
Location	Material Description	Quantity
** No hazardous materials were found on site**		

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 7, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples

were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994

P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twelve (12) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-one (31) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory

Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) material to contain greater than 1% asbestos (sample 7-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twelve (12) homogenous materials collected as part of the ACM survey, one (1) material contained asbestos greater than 1% (sample 7-1) with this one (1) material (sample 7-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





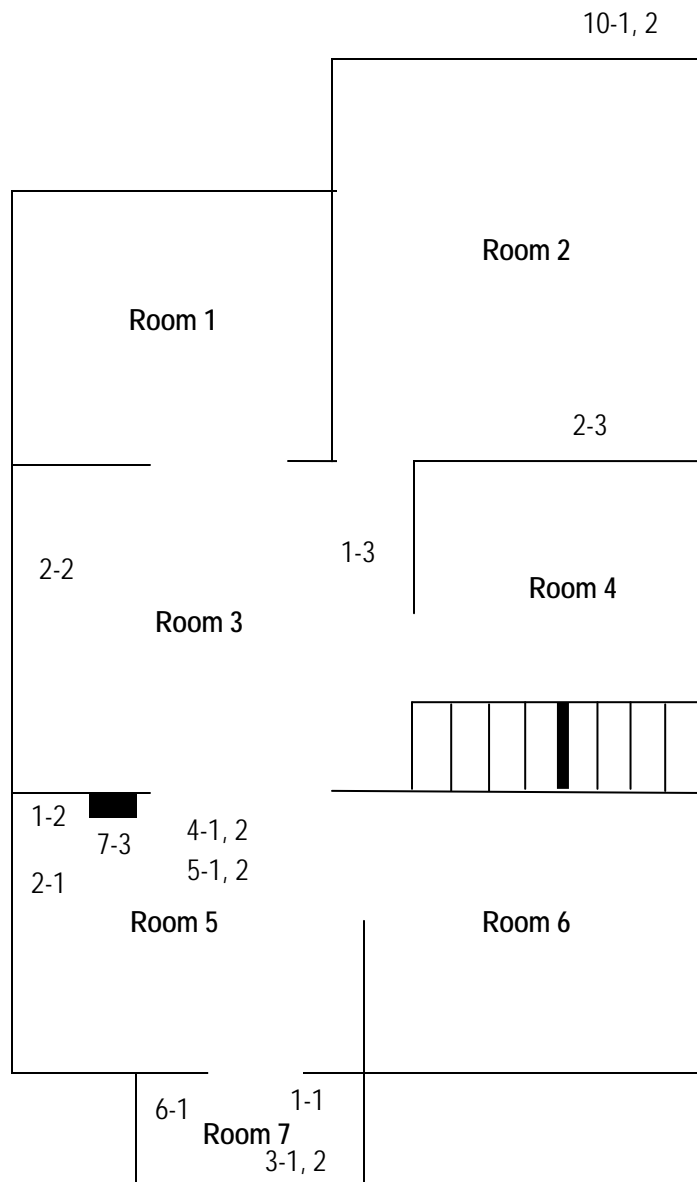
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1213 High St Date: December 11, 2017

Drawing not to scale

1st Floor



■ = Vent with wrap (200 SF)

#-# = Asbestos Sample



TECHNICAL SKILL.
CREATIVE SPIRIT.

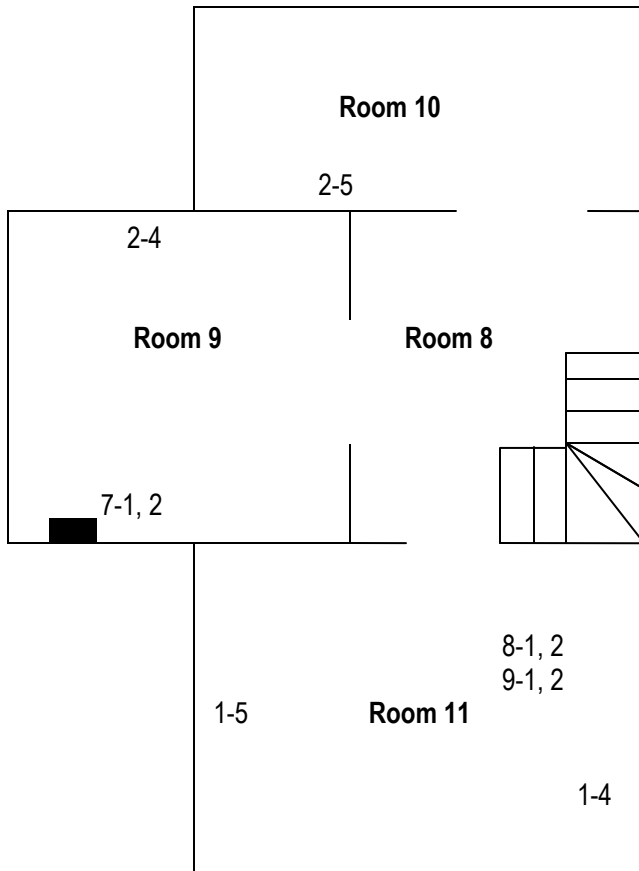
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1213 High St

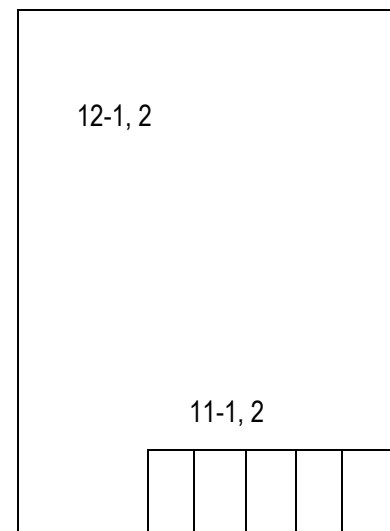
Date: December 11, 2017

Drawing not to scale

2nd Floor



Basement



■ = Vent with wrap (200 SF)

= Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1213 N High St.								
Survey Date		December 7, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-7	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-5	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-3	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-11	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-11	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-5	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-3	1	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-2	1	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-9	2	AS 2-4	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-10	2	AS 2-5	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	1600 SF
RM-7	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	140 SF
RM-7	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	140 SF
RM-5	1	AS 4-1	HA-4	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	316 SF
RM-5	1	AS 4-2	HA-4	Faux wood tile	Non-Friable	Good	Miscellaneous	No	No	316 SF
RM-5	1	AS 5-1	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	380 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1213 N High St.								
Survey Date		December 7, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-5	1	AS 5-2	HA-5	Beige tile	Non-Friable	Good	Miscellaneous	No	No	380 SF
RM-7	1	AS 6-1	HA-6	Gray tile 12x12	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-7	1	AS 6-2	HA-6	Gray tile 12x12	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-9	2	AS 7-1	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	65% Chrysotile	200 SF
RM-9	2	AS 7-2	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-5	1	AS 7-3	HA-7	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-11	2	AS 8-1	HA-8	White tile	Non-Friable	Good	Miscellaneous	Yes	No	120 SF
RM-11	2	AS 8-2	HA-8	White tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-11	2	AS 9-1	HA-9	Orange tile	Non-Friable	Good	Miscellaneous	No	No	20 SF
RM-11	2	AS 9-2	HA-9	Orange tile	Non-Friable	Good	Miscellaneous	No	No	20 SF
Roof	E	AS 10-1	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	510 SF
Roof	E	AS 10-2	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	510 SF
Basement	B	AS 11-1	HA-11	Basement concrete	Non-Friable	Good	Miscellaneous	No	No	250 SF
Basement	B	AS 11-2	HA-11	Basement concrete	Non-Friable	Good	Miscellaneous	No	No	250 SF
Basement	B	AS 12-1	HA-12	Concrete Patch	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	B	AS 12-2	HA-12	Concrete Patch	Non-Friable	Good	Miscellaneous	No	No	4 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 1213 N High St.
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-10, RM-6, RM-7, RM-4, RM-2, RM-1, Basement	CFL bulb	11
RM-7, RM-8, RM-3, RM-4, RM-6, Basement	Smoke detector	6
Basement	Fluorescent bulbs	3
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



1213 N High St, Front of House



Back of House

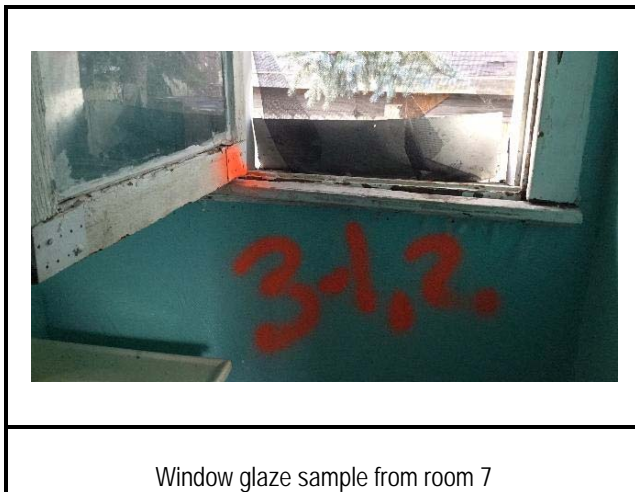
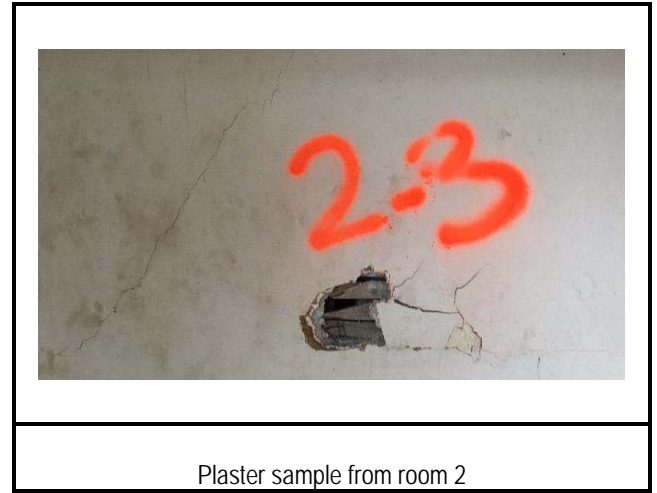


Side of House



Side of House

Sample Photos



Sample Photos



Orange tile sample from room 11



Shingle sample from roof

ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including but not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1213 N. High St.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73611
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 01 Cust. #: AS1-1 Material: Drywall Location: Room 7 Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%
Lab ID #: 73611 - 01a Cust. #: AS1-1 Material: Joint Compound Location: Room 7 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 02 Cust. #: AS1-2 Material: Drywall Location: Room 5 Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 5% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1213 N. High St.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73611
Date Collected: 12/07/17
Date Received: 12/08/17
Date Analyzed: 12/13/17
Date Reported: 12/13/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 03 Cust. #: AS1-3 Material: Drywall Location: Room 3 Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73611 - 03a Cust. #: AS1-3 Material: Joint Compound Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 04 Cust. #: AS1-4 Material: Drywall Location: Room 7 Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 05 Cust. #: AS1-5 Material: Drywall Location: Room 7 Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73611 - 06 Cust. #: AS2-4 Material: Plaster Finish Coat Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 06a Cust. #: AS2-4 Material: Plaster Base Coat Location: Room 9 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 07 Cust. #: AS2-5 Material: Plaster Finish Coat Location: Room 10 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 07a Cust. #: AS2-5 Material: Plaster Base Coat Location: Room 10 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 73611 - 08 Cust. #: AS2-1 Material: Plaster Finish Coat Location: Room 5 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 08a Cust. #: AS2-1 Material: Plaster Base Coat Location: Room 5 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 73611 - 09 Cust. #: AS2-2 Material: Plaster Finish Coat Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 09a Cust. #: AS2-2 Material: Plaster Base Coat Location: Room 3 Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 10 Cust. #: AS2-3 Material: Plaster Texture Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 10a Cust. #: AS2-3 Material: Plaster Finish Coat Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 10b Cust. #: AS2-3 Material: Plaster Base Coat Location: Room 2 Appearance: grey, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 11 Cust. #: AS3-1 Material: Window Glaze Location: Room 7 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 12 Cust. #: AS3-2 Material: Window Glaze Location: Room 7 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 13 Cust. #: AS4-1 Material: Faux Wood Floor Tile Location: Room 5 Appearance: brown, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 13a Cust. #: AS4-1 Material: Mastic Location: Room 5 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 14 Cust. #: AS4-2 Material: Faux Wood Floor Tile Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 14a Cust. #: AS4-2 Material: Mastic Location: Room 5 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 15 Cust. #: AS5-1 Material: Beige Tile Location: Room 5 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 15a Cust. #: AS5-1 Material: Mastic Location: Room 5 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 16 Cust. #: AS5-2 Material: Beige Tile Location: Room 5 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 16a Cust. #: AS5-2 Material: Mastic Location: Room 5 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 17 Cust. #: AS6-1 Material: Grey Tile 12x12 Floor Tile Location: Room 7 Appearance: grey,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 17a Cust. #: AS6-1 Material: Mastic Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 18 Cust. #: AS6-2 Material: Grey Tile 12x12 Floor Tile Location: Room 7 Appearance: grey, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 18a Cust. #: AS6-2 Material: Mastic Location: Room 7 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 19 Cust. #: AS7-1 Material: Vent Wrap Location: Room 9 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 65%	Other - 35%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 20 Cust. #: AS7-2 Material: Vent Wrap Location: Room 9 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73611 - 21 Cust. #: AS8-1 Material: White Tile Location: Room 7 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 21a Cust. #: AS8-1 Material: Mastic Location: Room 7 Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 22 Cust. #: AS8-2 Material: White Tile Location: Room 7 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 22a Cust. #: AS8-2 Material: Mastic Location: Room 7 Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 23 Cust. #: AS9-1 Material: Orange Tile Location: Room 7 Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 23a Cust. #: AS9-1 Material: Mastic Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 24 Cust. #: AS9-2 Material: Orange Tile Location: Room 7 Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 24a Cust. #: AS9-2 Material: Mastic Location: Room 7 Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 25 Cust. #: AS10-1 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73611 - 26 Cust. #: AS10-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73611 - 27 Cust. #: AS7-3 Material: Vent Wrap Location: Room 5 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73611 - 28 Cust. #: AS11-1 Material: Basement Concrete Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 29 Cust. #: AS11-2 Material: Basement Concrete Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73611 - 30 Cust. #: AS12-1 Material: Concrete Patch Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 73611 - 31
Cust. #: AS12-2
Material: Concrete Patch
Location: Basement
Appearance: grey, nonfibrous, homogenous
Layer: 1 of 1

Asbestos Present: **NO**
No Asbestos Observed

Other - 100%

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Customer Name: **MANNIK & SMITH GROUP**

Address: **2193 Association Drive, Suite 200**

City, St., Zip: **Okemos, MI, 48864**

Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/7/2017 5:00**

Project: **1213 N HIGH ST**

Project #: **11440002**

Contact Person: **Charlie Bush**

Email: **cbush@manniksmithgroup.com**

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____

48 Hour _____ **72 Hour** _____

Other: _____ TTP **yes** / no _____
(Test Till Positive)

Samples received after 3pm
logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: ☒ Bulk ☒ Wipe _____ Point Count _____ PCM _____

Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____

Mold: Bulk _____ Air _____ BioSIS _____ Tape _____

TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-7 - Drywall	Bag	HA-1	
2	AS 1-2	RM-5 - Drywall	Bag	HA-1	
3	AS 1-3	RM-3 - Drywall	Bag	HA-1	
4	AS 1-4	RM-7 - Drywall	Bag	HA-1	
5	AS 1-5	RM-7 - Drywall	Bag	HA-1	
6	AS 2-4	RM-9 - Plaster	Bag	HA-2	
7	AS 2-5	RM-10 - Plaster	Bag	HA-2	
8	AS 2-1	RM-5 - Plaster	Bag	HA-2	
9	AS 2-2	RM-3 - Plaster	Bag	HA-2	
10	AS 2-3	RM-2 - Plaster	Bag	HA-2	
11	AS 3-1	RM-7 - Window glaze	Bag	HA-3	
12	AS 3-2	RM-7 - Window glaze	Bag	HA-3	

Relinquished By: [Signature]Date: 12/7/17

Revision R4 Date: May/2017

Received By: [Signature]Time/Date: 12/7/17Relinquished By: _____ Received By: [Signature]Date: _____ Time/Date: DEC 08 2017

APEX RESEARCH

73611

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: **2193 Association Drive, Suite 200**
 City, St., Zip: **Okemos, MI, 48864**
 Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/7/2017 5:00**
 Project: **1213 N HIGH ST**
 Project #: **I1440002**
 Contact Person: **Charlie Bush**
 Email: **cbush@manniksmithgroup.com**

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ **72 Hour** _____
 Other: _____ TTP **yes** / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: ☒Bulk ☒ Wipe _____ Point Count _____ PCM _____

Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____

Mold: Bulk _____ Air _____ BioSIS _____ Tape _____

TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 4-1	RM-5 - Faux wood tile	Bag	HA-4	
14	AS 4-2	RM-5 - Faux wood tile	Bag	HA-4	
15	AS 5-1	RM-5 - Beige tile	Bag	HA-5	
16	AS 5-2	RM-5 - Beige tile	Bag	HA-5	
17	AS 6-1	RM-7 - Gray tile 12x12	Bag	HA-6	
18	AS 6-2	RM-7 - Gray tile 12x12	Bag	HA-6	
19	AS 7-1	RM-9 - Vent wrap	Bag	HA-7	
20	AS 7-2	RM-9 - Vent wrap	Bag	HA-7	
21	AS 8-1	RM-7 - White tile	Bag	HA-8	
22	AS 8-2	RM-7 - White tile	Bag	HA-8	
23	AS 9-1	RM-7 - Orange tile	Bag	HA-9	
24	AS 9-2	RM-7 - Orange tile	Bag	HA-9	

Relinquished By: [Signature]Received By: [Signature]Relinquished By: _____ Received By: [Signature]Date: 12/7/17Time/Date: 12/7/17

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

RECEIVED
 DEC 08 2017
 APEX RESEARCH
 Page 2 of 3

73611

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/7/2017 5:00
 Project: 1213 N HIGH ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only
 Log-In: _____
 Report: _____
 Fax: _____
 Verbal: _____
 Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 10-1	Roof - Shingles	Bag	HA-10	
26	AS 10-2	Roof - Shingles	Bag	HA-10	
27	AS 7-3	RM-5 - Vent wrap	Bag	HA-7	
28	AS 11-1	Basement - Basement concrete	Bag	HA-11	
29	AS 11-2	Basement - Basement concrete	Bag	HA-11	
30	AS 12-1	Basement - Concrete Patch	Bag	HA-12	
31	AS 12-2	Basement - Concrete Patch	Bag	HA-12	

Relinquished By: [Signature]

Date: 12/7/17

Revision R4 Date: May/2017

Received By: [Signature]

Time/Date: 12/7/17

Relinquished By: _____ Received By: [Signature]

Date: _____ Time/Date: DEC 08 2017

APEX RESEARCH, INC.

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



January 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: 914 Johnson Ave., Lansing – Property Accessibility Determination

Dear Ms. Case,

The Mannik & Smith Group, Inc. (MSG) has conducted an evaluation as to the accessibility of the above referenced property structure prior to demolition for the purpose of conducting a Hazardous Material Survey HMS [aka Regulated Material Survey (RMS)], including an asbestos survey.

Based on a site visit conducted on December 8, 2017, MSG has determined that the structure is damaged and unsafe to enter for the purpose of conducting an HMS. Please find the attached photographic logs summarizing photographs of the site structure taken during the site visit on December 8, 2017 documenting the unsafe nature of the site structure. It is MSG's professional opinion that due to the damaged and unsafe condition of the site structure, the structure is inaccessible and an HMS is not required prior to demolition so long as the appropriate National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Michigan Occupational Safety and Health Administration (MIOSHA) regulations and other pertinent local, state and federal regulations are followed. MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

Should you have any questions or require additional information, please do not hesitate to contact us at (517) 316-9232.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

Property Photos



903 E Saginaw St, Front of House



Back of House



Side of House



Side of House

Property Photos



View of northwestern burned portion of house



View of collapsing ceiling facing east



Andy Schor, Mayor

CITY OF LANSING
Department of Economic Development and Planning

316 N. Capitol Ave., Suite C-1 – Lansing, MI 48933-1238

(517) 483-4355 – Fax (517) 377-0169

Brian McGrain, Director

www.LansingMi.gov

Office of Building Safety
Unsafe Structures Notice

February 28, 2018

Ingham County Land Bank
Fast Track Authority
3024 Turner Street
Lansing, Michigan 48906

Regarding: 914 Johnson Avenue
Parcel: #33-01-01-10-330-121

Dear ICLB,

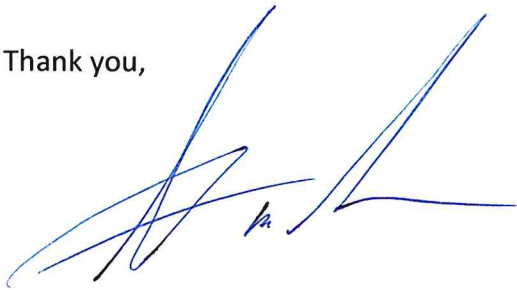
This letter is in regard to the unsafe structure and unsafe site conditions at the aforementioned address. After a review of the site and structure this office has declared this site, structure and Use (R-3), unsafe to occupy in any part and is in structural failure. Therefore the site shall be properly secured to prevent anyone from entry and the structure shall be made safe or removed as stated herein. It is imperative and time is of the essence that steps be taken to address these issues. To ensure the health, safety and welfare for neighbors and the public, the City of Lansing and the State of Michigan requires that the building and site be protected, repaired and/or removed immediately.

This letter shall serves as notice that the property shall be made safe as set forth by the STILLE-DEROSSETT-HALE- SINGLE STATE CONSTRUCTION CODE ACT, Act 230 of 1972 known as the Michigan Building Code 2015 with amendments, in particular section 116.1 of the Michigan Building Code 2015; “Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilitates, inadequate light and ventilation, or which constitutes a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed unsafe an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the Building Official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.”

It is our understanding that measures need to be implemented to abate the structural hazards. This office approves the implementation of any and all measures to abate said hazards as set forth by the code.

Should you have any questions please feel free to contact me at (517) 483-4365 or at Steve.Swan@lansingmi.gov or visit our City web site at cityoflansing.com

Thank you,

A handwritten signature in blue ink, appearing to be 'S. Swan', with a stylized flourish extending from the end.

Steven M. Swan, C.B.O.
Chief Building Inspector
City of Lansing, Michigan



March 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Limited Pre-Demolition Regulated Materials Survey
914 Johnson Ave, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 914 Johnson Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Charlie Bush (Accreditation Number A34293).

SUMMARY

Building Information	
Property Address	914 Johnson Ave., Lansing, MI
Parcel #	33-01-01-10-330-121
No. Stories	1
Square Footage (approx.)	1,360 SF
Siding	Vinyl
Basement	Yes
Garage	No



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
Samples collected on the exterior of the building contained no asbestos				

PURPOSE AND SCOPE OF WORK

The property has been identified as unsafe to enter and as a result a complete RMS cannot be conducted on the property. The purpose of this limited RMS was to identify, quantify and document the location of regulated materials that could safely be inspected and that may be encountered during demolition of the on-site structure. This limited the inspection to the properties building exterior. To accomplish this purpose, MSG performed the following scope of work:

- 1) Limited pre-demolition asbestos-containing material (ACM) survey on the safe and accessible areas of the Site building.

TECHNICAL SKILL.
CREATIVE SPIRIT.

METHODOLOGIES

The partial RMS on the exterior of the building was conducted on February 22, 2018. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM located on the exterior of the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of the safe and accessible parts of the Site building, primarily the exterior and roof. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Charlie Bush (Accreditation Number A34293). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM where safely accessible in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG was unable to gain access to the interior of the building to conduct this portion of the survey due to unsafe conditions.

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG was able to safely collect samples from four (4) homogenous materials from the exterior of the building that were suspect as asbestos containing during the ACM survey. One (1) bulk sample was collected from each suspect homogeneous material and submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no material to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

A universal waste, hazardous material, and/or other regulated material waste survey was not completed as part of this RMS report due to MSG's inability to safely enter the Site building.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the four (4) homogenous materials collected as part of the ACM survey, no material contained asbestos greater than 1%.

MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Bush', with a stylized, cursive script.

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		914 Johnson Ave								
Survey Date		February 22, 2018								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Exterior	1	AS1-1	HA-1	Exterior Siding Paper Backing	Non-Friable	Good	Miscellaneous	No	No	1,800 SF
Roof	1	AS2-1	HA-2	Exterior Asphalt Shingle	Non-Friable	Good	Miscellaneous	No	No	1,500 SF
Exterior	1	AS3-1	HA-3	Exterior Tar Paper	Non-Friable	Good	Miscellaneous	No	No	1,800 SF
Exterior	1	AS4-1	HA-4	Exterior Fabric Backing	Non-Friable	Good	Miscellaneous	No	No	1,800 SF

ATTACHMENT A

PHOTO LOG



Property Photos



914 Johnson Ave, Front of House



Back of House



Side of House



Side of House

Property Photos



View of northwestern burned portion of house



Exterior fabric backing sample AS4-1



View of collapsing ceiling facing east



Exterior asphalt shingle sample AS2-1

ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including but not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 914 Johnson Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 18-75185
Date Collected: 02/22/18
Date Received: 02/23/18
Date Analyzed: 02/27/18
Date Reported: 02/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75185 - 01 Cust. #: AS1-1 Material: Exterior Siding Paper Backing Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75185 - 02 Cust. #: AS2-1 Material: Exterior Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 75185 - 03 Cust. #: AS3-1 Material: Exterior Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 914 Johnson Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 18-75185
Date Collected: 02/22/18
Date Received: 02/23/18
Date Analyzed: 02/27/18
Date Reported: 02/28/18

Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 75185 - 04
Cust. #: AS4-1
Material: Exterior Fabric Backing
Location:
Appearance: brown, fibrous, homogenous
Layer: 1 of 1

Asbestos Present: **NO**
No Asbestos Observed

Cellulose - 80%
Other - 20%

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Lab Use Only

2/22/2018 14:00

914 Johnson Ave

11440002

Charlie Bush

cbush@manniksmitharoup.com

Log-In: _____
Report: _____
Fax: _____
Verbal: _____
Email: _____

Circle analyses required, indicate type and quantity

Asbstos:

72 Hour

TTP yes / no
(Test Till Positive)

ITEM:

Bulk X	Wipe	Point Count	PCM
Air	Paint	Wipe (ASTM)	Bulk

	Bulk	Air	BioSIS	Tape
1	0.0000	0.0000	0.0000	0.0000
2	0.0000	0.0000	0.0000	0.0000
3	0.0000	0.0000	0.0000	0.0000
4	0.0000	0.0000	0.0000	0.0000
5	0.0000	0.0000	0.0000	0.0000
6	0.0000	0.0000	0.0000	0.0000
7	0.0000	0.0000	0.0000	0.0000
8	0.0000	0.0000	0.0000	0.0000
9	0.0000	0.0000	0.0000	0.0000
10	0.0000	0.0000	0.0000	0.0000
11	0.0000	0.0000	0.0000	0.0000
12	0.0000	0.0000	0.0000	0.0000
13	0.0000	0.0000	0.0000	0.0000
14	0.0000	0.0000	0.0000	0.0000
15	0.0000	0.0000	0.0000	0.0000
16	0.0000	0.0000	0.0000	0.0000
17	0.0000	0.0000	0.0000	0.0000
18	0.0000	0.0000	0.0000	0.0000
19	0.0000	0.0000	0.0000	0.0000
20	0.0000	0.0000	0.0000	0.0000
21	0.0000	0.0000	0.0000	0.0000
22	0.0000	0.0000	0.0000	0.0000
23	0.0000	0.0000	0.0000	0.0000
24	0.0000	0.0000	0.0000	0.0000
25	0.0000	0.0000	0.0000	0.0000
26	0.0000	0.0000	0.0000	0.0000
27	0.0000	0.0000	0.0000	0.0000
28	0.0000	0.0000	0.0000	0.0000
29	0.0000	0.0000	0.0000	0.0000
30	0.0000	0.0000	0.0000	0.0000
31	0.0000	0.0000	0.0000	0.0000
32	0.0000	0.0000	0.0000	0.0000
33	0.0000	0.0000	0.0000	0.0000
34	0.0000	0.0000	0.0000	0.0000
35	0.0000	0.0000	0.0000	0.0000
36	0.0000	0.0000	0.0000	0.0000
37	0.0000	0.0000	0.0000	0.0000
38	0.0000	0.0000	0.0000	0.0000
39	0.0000	0.0000	0.0000	0.0000
40	0.0000	0.0000	0.0000	0.0000
41	0.0000	0.0000	0.0000	0.0000
42	0.0000	0.0000	0.0000	0.0000
43	0.0000	0.0000	0.0000	0.0000
44	0.0000	0.0000	0.0000	0.0000
45	0.0000	0.0000	0.0000	0.0000
46	0.0000	0.0000	0.0000	0.0000
47	0.0000	0.0000	0.0000	0.0000
48	0.0000	0.0000	0.0000	0.0000
49	0.0000	0.0000	0.0000	0.0000
50	0.0000	0.0000	0.0000	0.0000
51	0.0000	0.0000	0.0000	0.0000
52	0.0000	0.0000	0.0000	0.0000
53	0.0000	0.0000	0.0000	0.0000
54	0.0000	0.0000	0.0000	0.0000
55	0.0000	0.0000	0.0000	0.0000
56	0.0000	0.0000	0.0000	0.0000
57	0.0000	0.0000	0.0000	0.0000
58	0.0000	0.0000	0.0000	0.0000
59	0.0000	0.0000	0.0000	0.0000
60	0.0000	0.0000	0.0000	0.0000
61	0.0000	0.0000	0.0000	0.0000
62	0.0000	0.0000	0.0000	0.0000
63	0.0000	0.0000	0.0000	0.0000
64	0.0000	0.0000	0.0000	0.0000
65	0.			

	Bulk	NIOSH	EPA Level II	Other

Bulk	NIOSH	EPA Level II	Other

[illegible]

Received By:

Time/Date:

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey – Revised February 8, 2018
1026 E Oakland Ave, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 1026 E Oakland Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	1026 E Oakland Ave, Lansing, MI
Parcel #	33-01-01-10-376-231
No. Stories	1
Square Footage (approx.)	680 SF
Siding	Wood
Basement	Yes
Garage	Yes



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-1, RM-2, RM-3, RM-5	Vent wrap	Friable	50% Chrysotile	85 SF
RM-1, RM-2, RM-3, RM-4, RM-6	Window glaze	Non Friable	5% Chrysotile	11 Windows

Hazardous Materials		
Location	Material Description	Quantity
** No hazardous materials were found on site **		

TECHNICAL SKILL.
CREATIVE SPIRIT.

Universal Waste Inventory		
Location	Material Description	Quantity
RM-4	CFL bulb	1
RM-2, RM-3	Smoke detector	2

Other Regulated Materials Inventory		
Location	Material Description	Quantity
RM-4	Refrigerator	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 20, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal

Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified ten (10) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-three (23) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyze bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found two (2) homogenous materials (samples 2-1 and 4-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the ten (10) homogenous materials collected as part of the ACM survey, two (2) homogenous materials contained asbestos greater than 1% (samples 2-1 and 4-1) with these two (2) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

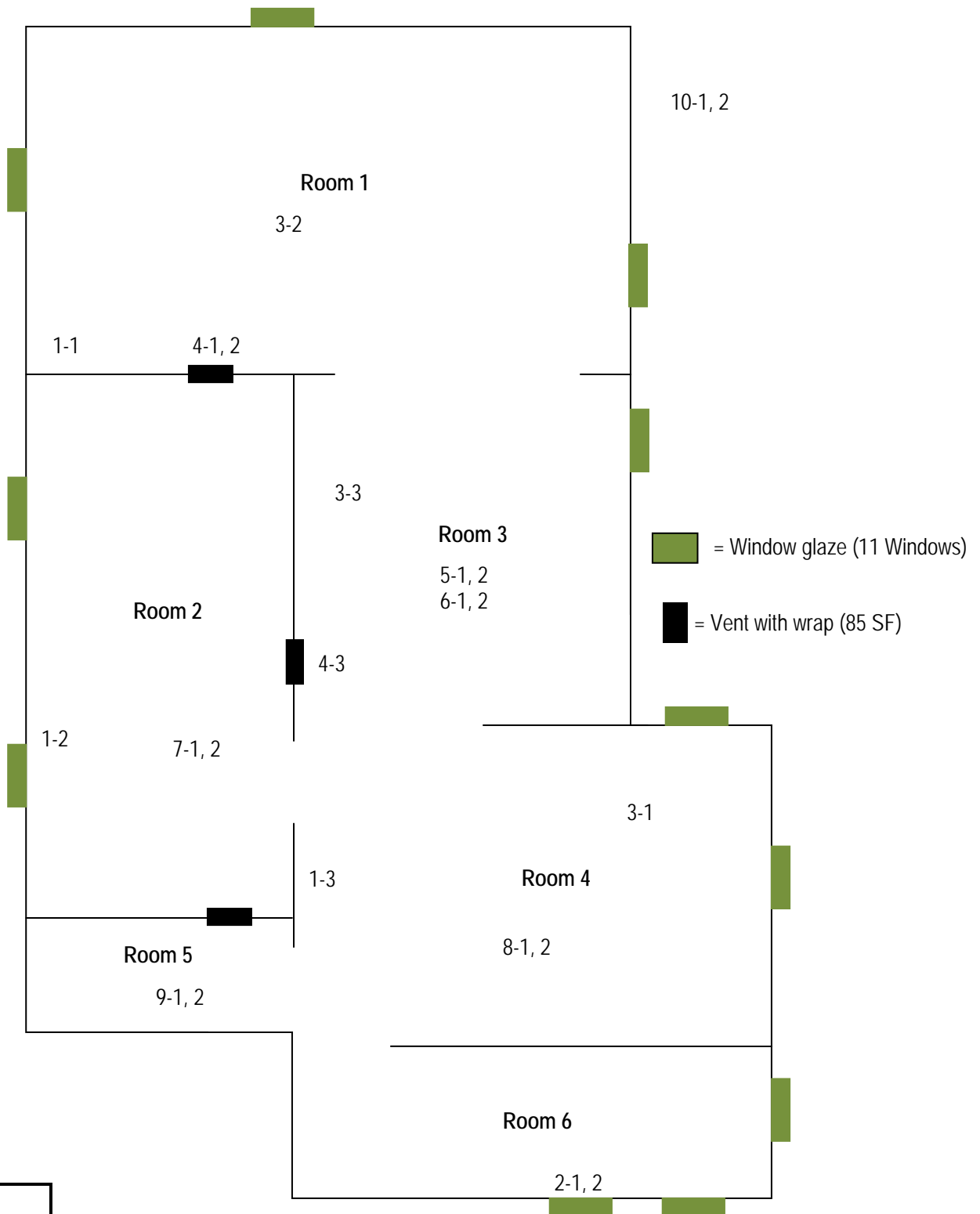
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 1026 E Oakland Ave

Date: December 21, 2017

Drawing not to scale

1st Floor



#-# = Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1026 E Oakland Ave								
Survey Date		December 20, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-1	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-2	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-4	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	1700 SF
RM-6	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	Yes	5% Chrysotile	11 Windows
RM-6	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	Yes	NA	11 Windows
RM-4	1	AS 3-1	HA-3	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-1	1	AS 3-2	HA-3	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-3	1	AS 3-3	HA-3	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-1	1	AS 4-1	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	85 SF
RM-1	1	AS 4-2	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	85 SF
RM-3	1	AS 4-3	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	85 SF
RM-3	1	AS 5-1	HA-5	Faux wood sandwich tile	Non-Friable	Good	Miscellaneous	No	No	160 SF
RM-3	1	AS 5-2	HA-5	Faux wood sandwich tile	Non-Friable	Good	Miscellaneous	No	No	160 SF
RM-3	1	AS 6-1	HA-6	Brown tile	Non-Friable	Good	Miscellaneous	No	No	280 SF
RM-3	1	AS 6-2	HA-6	Brown tile	Non-Friable	Good	Miscellaneous	No	No	280 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		1026 E Oakland Ave								
Survey Date		December 20, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 7-1	HA-7	Black linoleum	Non-Friable	Good	Miscellaneous	No	No	110 SF
RM-2	1	AS 7-2	HA-7	Black linoleum	Non-Friable	Good	Miscellaneous	No	No	110 SF
RM-4	1	AS 8-1	HA-8	Green and white tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-4	1	AS 8-2	HA-8	Green and white tile	Non-Friable	Good	Miscellaneous	No	No	120 SF
RM-5	1	AS 9-1	HA-9	Green tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
RM-5	1	AS 9-2	HA-9	Green tile	Non-Friable	Good	Miscellaneous	No	No	35 SF
Roof	E	AS 10-1	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	900 SF
Roof	E	AS 10-2	HA-10	Shingles	Non-Friable	Good	Miscellaneous	No	No	900 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 1026 E Oakland Ave
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-4	CFL bulb	1
RM-2, RM-3	Smoke detector	2
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-4	Refrigerator	1

ATTACHMENT A

PHOTO LOG



Property Photos



1026 E Oakland Ave, Front of House



Back of House

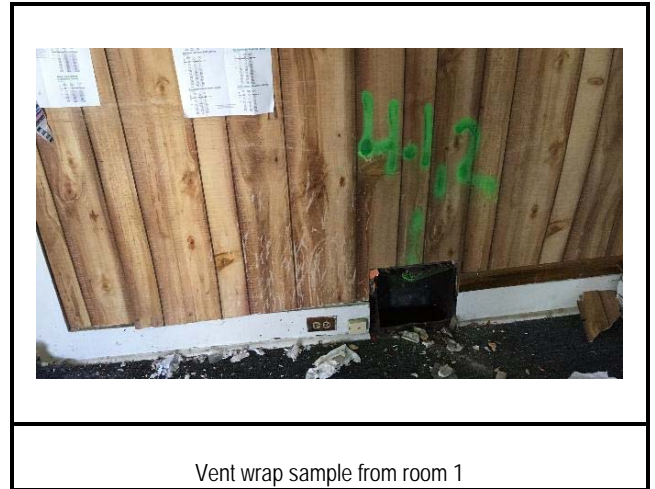
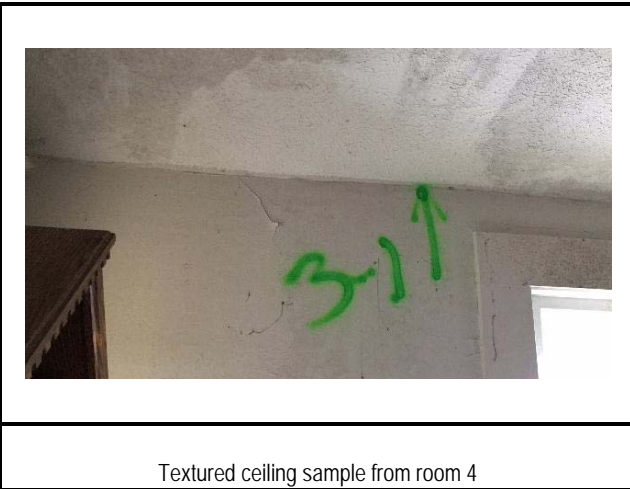


Side of House



Side of House

Sample Photos



ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 01 Cust. #: AS 1-1 Material: Plaster Location: Room 1 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73863 - 02 Cust. #: AS 3-2 Material: Textured Ceiling Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73863 - 03 Cust. #: AS 4-1 Material: Vent Wrap Location: Room 1 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 50%	Cellulose - 30% Other - 20%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



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ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 04 Cust. #: AS 4-2 Material: Vent Wrap Location: Room 1 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73863 - 05 Cust. #: AS 4-3 Material: Vent Wrap Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73863 - 06 Cust. #: AS 5-1 Material: Faux Wood Tile Location: Room 3 Appearance: brown, nonfibrous, homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 06a Cust. #: AS 5-1 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 06b Cust. #: AS 5-1 Material: Beige Floor Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 06c Cust. #: AS 5-1 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 06d Cust. #: AS 5-1 Material: Wood Floor Tile Location: Room 3 Appearance: brown,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 06e Cust. #: AS 5-1 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 07 Cust. #: AS 5-2 Material: Faux Wood Tile Location: Room 3 Appearance: brown,nonfibrous,homogenous Layer: 1 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 07a Cust. #: AS 5-2 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 07b Cust. #: AS 5-2 Material: Beige Floor Tile Location: Room 3 Appearance: beige,nonfibrous,homogenous Layer: 3 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 07c Cust. #: AS 5-2 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 4 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 07d Cust. #: AS 5-2 Material: Wood Floor Tile Location: Room 3 Appearance: brown,nonfibrous,homogenous Layer: 5 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 07e Cust. #: AS 5-2 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 6 of 6	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 08 Cust. #: AS 6-1 Material: Brown Tile Location: Room 3 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 08a Cust. #: AS 6-1 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 09 Cust. #: AS 6-2 Material: Brown Tile Location: Room 3 Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 09a Cust. #: AS 6-2 Material: Glue Location: Room 3 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 10 Cust. #: AS 3-3 Material: Textured Ceiling Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73863 - 11 Cust. #: AS 1-2 Material: Plaster Location: Room 2 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73863 - 12 Cust. #: AS 7-1 Material: Black Linoleum Location: Room 2 Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 13 Cust. #: AS 7-2 Material: Black Linoleum Location: Room 2 Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 73863 - 14 Cust. #: AS 1-3 Material: Plaster Location: Room 4 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73863 - 15 Cust. #: AS 3-1 Material: Textured Ceiling Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
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Report To:

Mr. Charlie Bush
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2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 16 Cust. #: AS 8-1 Material: Green & White Tile Location: Room 4 Appearance: green, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 73863 - 16a Cust. #: AS 8-1 Material: Glue Location: Room 4 Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 17 Cust. #: AS 8-2 Material: Green & White Tile Location: Room 4 Appearance: green, fibrous, homogenous Layer: 1 of 2	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

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 17a Cust. #: AS 8-2 Material: Glue Location: Room 4 Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73863 - 18 Cust. #: AS 9-1 Material: Green Tile Location: Room 5 Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73863 - 19 Cust. #: AS 9-2 Material: Green Tile Location: Room 5 Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 20 Cust. #: AS 2-1 Material: Window Glaze Location: Room 6 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 73863 - 21 Cust. #: AS 2-2 Material: Window Glaze Location: Room 6 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73863 - 22 Cust. #: AS 10-1 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	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 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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 1026 E. Oakland Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73863
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/28/17
Date Reported: 12/29/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73863 - 23 Cust. #: AS 10-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: **2193 Association Drive, Suite 200**
 City, St., Zip: **Okemos, MI, 48864**
 Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/20/2017 5:00**
 Project: **1026 E OAKLAND AVE**
 Project #: **I1440002**
 Contact Person: **Charlie Bush**
 Email: **cbush@manniksmithgroup.com**

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ **72 Hour** _____
 Other: _____ TTP **yes** / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-1 - Plaster	Bag	HA-1	
2	AS 3-2	RM-1 - Textured ceiling	Bag	HA-3	
3	AS 4-1	RM-1 - Vent wrap	Bag	HA-4	
4	AS 4-2	RM-1 - Vent wrap	Bag	HA-4	
5	AS 4-3	RM-3 - Vent wrap	Bag	HA-4	
6	AS 5-1	RM-3 - Faux wood sandwich tile	Bag	HA-5	
7	AS 5-2	RM-3 - Faux wood sandwich tile	Bag	HA-5	
8	AS 6-1	RM-3 - Brown tile	Bag	HA-6	
9	AS 6-2	RM-3 - Brown tile	Bag	HA-6	
10	AS 3-3	RM-3 - Textured ceiling	Bag	HA-3	
11	AS 1-2	RM-2 - Plaster	Bag	HA-1	
12	AS 7-1	RM-2 - Black linoleum	Bag	HA-7	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12/20/17Time/Date: 12/21/17

DEC 21 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73863

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/20/2017 5:00
 Project: 1026 E OAKLAND AVE
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 7-2	RM-2 - Black linoleum	Bag	HA-7	
14	AS 1-3	RM-4 - Plaster	Bag	HA-1	
15	AS 3-1	RM-4 - Textured ceiling	Bag	HA-3	
16	AS 8-1	RM-4 - Green and white tile	Bag	HA-8	
17	AS 8-2	RM-4 - Green and white tile	Bag	HA-8	
18	AS 9-1	RM-5 - Green tile	Bag	HA-9	
19	AS 9-2	RM-5 - Green tile	Bag	HA-9	
20	AS 2-1	RM-6 - Window glaze	Bag	HA-2	
21	AS 2-2	RM-6 - Window glaze	Bag	HA-2	
22	AS 10-1	Roof - Shingles	Bag	HA-10	
23	AS 10-2	Roof - Shingles	Bag	HA-10	

Relinquished By: _____

Received By: _____

Relinquished By: _____

Received By: _____

Date: 12/21/17

Time/Date: 12/21/17

Date: _____

Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator

Date

Signature of Owner/Operator

Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 28, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
717 E Park Terrace, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 717 E Park Terrace, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	717 E Park Terrace, Lansing, MI
Parcel #	33-01-01-10-353-171
No. Stories	2
Square Footage (approx.)	1,100 SF
Siding	Vinyl
Basement	Yes
Garage	No



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-4, RM-6, RM-9	Vent wrap	Friable	50% Chrysotile	200 SF
RM-4, RM-8	Red linoleum	Non friable	45% Chrysotile	200 SF

Universal Waste Inventory		
Location	Material Description	Quantity
RM-3, RM-4, RM-7, Exterior	CFL bulb	4
RM-6, RM-7, Basement	Smoke detector	3
RM-1	Thermostat	1

TECHNICAL SKILL.
CREATIVE SPIRIT.

Hazardous Materials		
Location	Material Description	Quantity
No hazardous materials were found on site		

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 8, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number

A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twelve (12) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-eight (28) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found

two (2) homogenous materials to contain greater than 1% asbestos (samples 4-1 and 6-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twelve (12) homogenous materials collected as part of the ACM survey, two (2) materials contained asbestos greater than 1% (samples 4-1 and 6-1) with these two (2) materials (samples 4-1 and 6-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kory McKay', with a long horizontal flourish extending to the right.

Kory McKay
Environmental Scientist
Accreditation Number A47903

A handwritten signature in blue ink, appearing to read 'Charlie Bush', with a long horizontal flourish extending to the right.

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

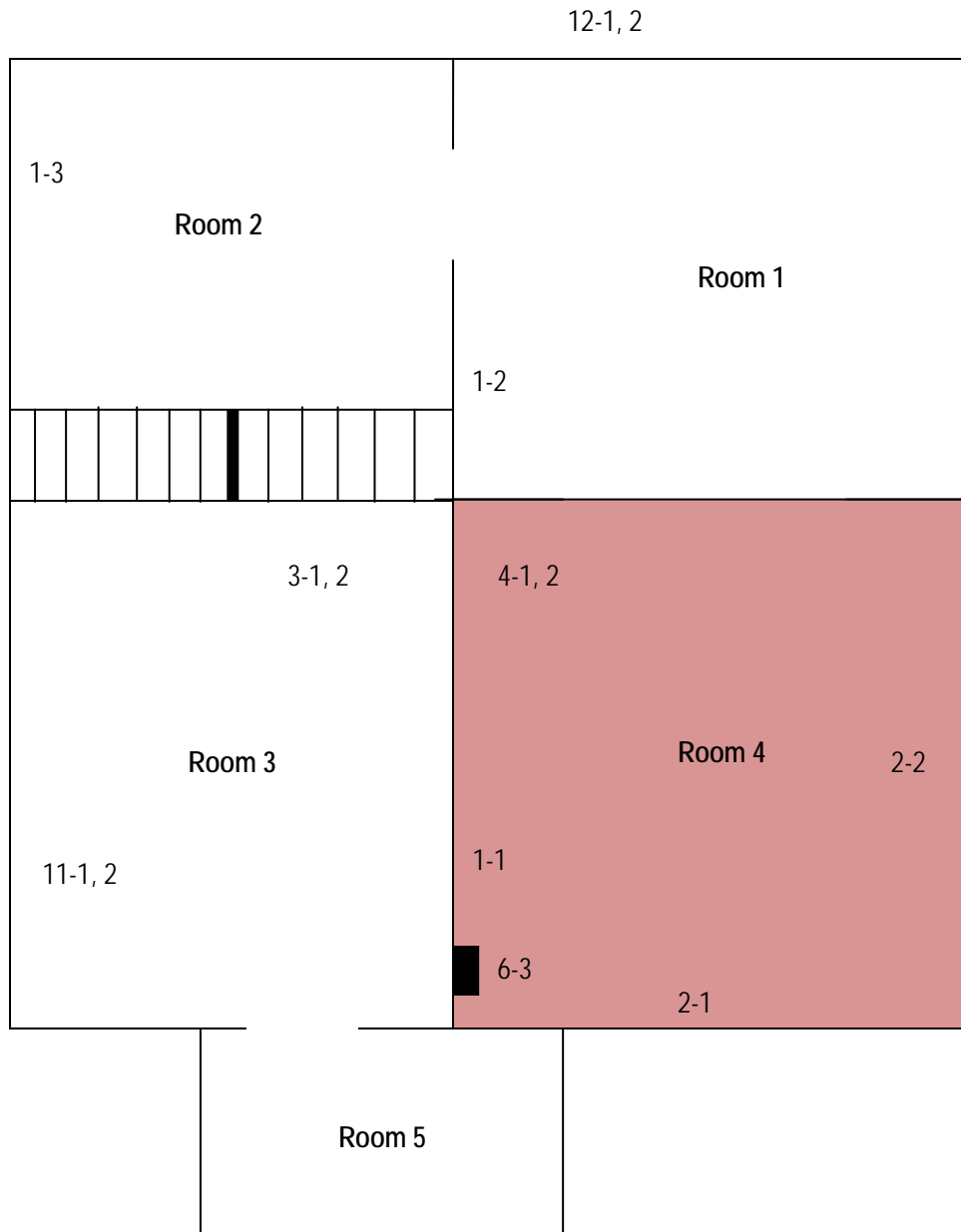
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 717 E Park Terrace


Date: December 11, 2017

Drawing not to scale

1st Floor



 Red Linoleum (200 SF)

 Vent with wrap (200 SF)

#-# = Asbestos Sample



TECHNICAL SKILL.
CREATIVE SPIRIT.

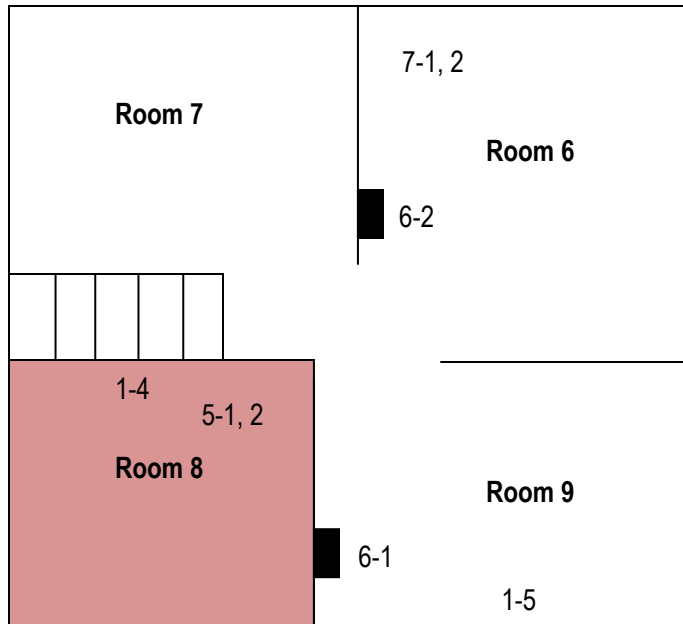
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 717 E Park Terrace

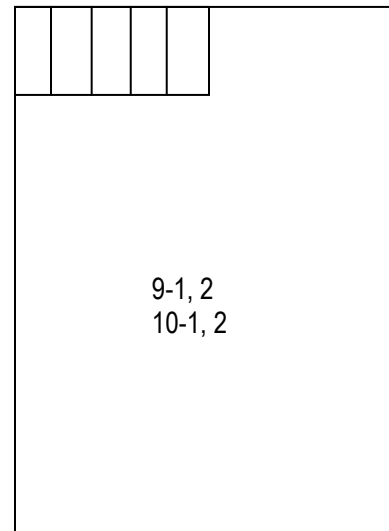
Date: December 11, 2017


Drawing not to scale


2nd Floor



Basement



 Red Linoleum (200 SF)

 Vent with wrap (200 SF)

= Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		717 East Park Terrace								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-4	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-2	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-8	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-9	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-4	1	AS 2-1	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	170 SF
RM-4	1	AS 2-2	HA-2	Window glaze	Non-Friable	Good	Miscellaneous	No	No	170 SF
RM-3	1	AS 3-1	HA-3	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	108 SF
RM-3	1	AS 3-2	HA-3	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	108 SF
RM-4	1	AS 4-1	HA-4	Red linoleum	Non-Friable	Good	Miscellaneous	Yes	45% Chrysotile	200 SF
RM-4	1	AS 4-2	HA-4	Red linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-8	2	AS 5-1	HA-5	White tile	Non-Friable	Good	Miscellaneous	No	No	63 SF
RM-8	2	AS 5-2	HA-5	White tile	Non-Friable	Good	Miscellaneous	No	No	63 SF
RM-9	2	AS 6-1	HA-6	Vent wrap	Friable	Good	Miscellaneous	Yes	50% Chrysotile	200 SF
RM-6	2	AS 6-2	HA-6	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF
RM-4	1	AS 6-3	HA-6	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	200 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		717 East Park Terrace								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-6	2	AS 7-1	HA-7	Yellow flooring	Non-Friable	Good	Miscellaneous	No	No	350 SF
RM-6	2	AS 7-2	HA-7	Yellow flooring	Non-Friable	Good	Miscellaneous	No	No	350 SF
Roof	E	AS 8-1	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Roof	E	AS 8-2	HA-8	Shingles	Non-Friable	Good	Miscellaneous	No	No	500 SF
Basement	B	AS 9-1	HA-9	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	440 SF
Basement	B	AS 9-2	HA-9	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	440 SF
Basement	B	AS 10-1	HA-10	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	2 SF
Basement	B	AS 10-2	HA-10	Stack Cement	Non-Friable	Good	Miscellaneous	No	No	2 SF
RM-3	1	AS 11-1	HA-11	Sink under coating	Non-Friable	Good	Miscellaneous	No	No	3 SF
RM-3	1	AS 11-2	HA-11	Sink under coating	Non-Friable	Good	Miscellaneous	No	No	3 SF
Exterior	E	AS 12-1	HA-12	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1800 SF
Exterior	E	AS 12-2	HA-12	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1800 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 717 East Park Terrace
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-3, RM-4, RM-7, Exterior	CFL bulb	4
RM-6, RM-7, Basement	Smoke detector	3
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



717 East Park Terrace, Front of House



Back of House

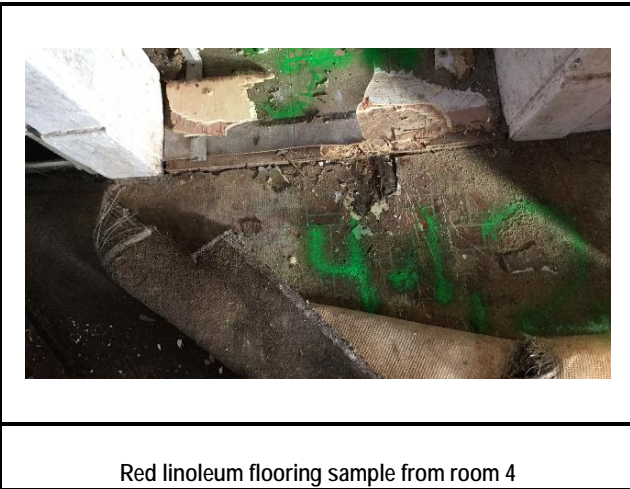
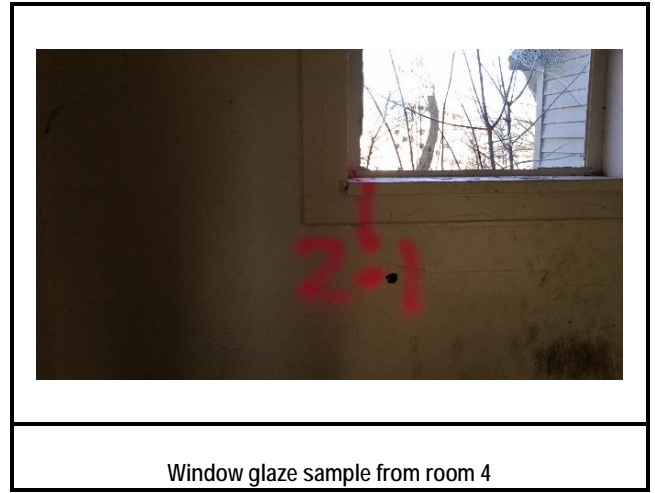
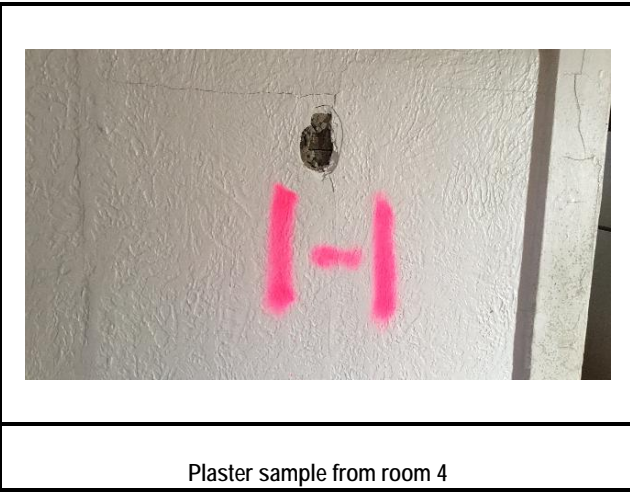


Side of House



Side of House

Sample Photos



ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 01 Cust. #: AS1-1 Material: Plaster/Mortar Location: Room 4 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73729 - 02 Cust. #: AS1-2 Material: Plaster Location: Room 1 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73729 - 03 Cust. #: AS1-3 Material: Plaster Location: Room 2 Appearance: white, nonfibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 03a Cust. #: AS1-3 Material: Mortar Location: Room 2 Appearance: grey, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73729 - 04 Cust. #: AS1-4 Material: Plaster Location: Room 8 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 04a Cust. #: AS1-4 Material: Mortar Location: Room 8 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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

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Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)



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ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 05 Cust. #: AS1-5 Material: Plaster Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 05a Cust. #: AS1-5 Material: Mortar Location: Room 9 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73729 - 06 Cust. #: AS5-1 Material: White Tile Location: Room 8 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 07 Cust. #: AS5-2 Material: White Tile Location: Room 8 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 08 Cust. #: AS6-1 Material: Vent Wrap Location: Room 9 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 50%	Other - 50%
Lab ID #: 73729 - 09 Cust. #: AS6-2 Material: Vent Wrap Location: Room 6 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 10 Cust. #: AS7-1 Material: Yellow Flooring Location: Room 6 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 11 Cust. #: AS7-2 Material: Yellow Flooring Location: Room 6 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 12 Cust. #: AS8-1 Material: Shingles Location: Roof Appearance: black,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 13 Cust. #: AS8-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73729 - 14 Cust. #: AS2-1 Material: Window Glaze Location: Room 4 Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 15 Cust. #: AS2-2 Material: Window Glaze Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

A handwritten signature in black ink, appearing to read "Robert T. Letarte Jr.".

Robert T. Letarte Jr., Laboratory Director

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Report To:

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Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 16 Cust. #: AS3-1 Material: Tan Linoleum Location: Room 3 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73729 - 17 Cust. #: AS3-2 Material: Tan Linoleum Location: Room 3 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 73729 - 18 Cust. #: AS4-1 Material: Red Linoleum Location: Room 4 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 45%	Cellulose - 10% Other - 45%

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

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Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 19 Cust. #: AS4-2 Material: Red Linoleum Location: Room 4 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73729 - 20 Cust. #: AS9-1 Material: Cement Basement Floor Location: Basement Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73729 - 21 Cust. #: AS9-2 Material: Cement Basement Floor Location: Basement Appearance: grey, nonfibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 22 Cust. #: AS10-1 Material: Stack Cement Location: Basement Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 10% Other - 90%
Lab ID #: 73729 - 23 Cust. #: AS10-2 Material: Stack Cement Location: Basement Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 10% Other - 90%
Lab ID #: 73729 - 24 Cust. #: AS11-1 Material: Sink Undercoating Location: Room 3 Appearance: black, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73729 - 25 Cust. #: AS11-2 Material: Sink Undercoating Location: Room 3 Appearance: black, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73729 - 26 Cust. #: AS12-1 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Other - 35%
Lab ID #: 73729 - 27 Cust. #: AS12-2 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Other - 35%

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

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Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 717 East Park Terrace
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73729
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 73729 - 28
Cust. #: AS6-3
Material: Vent Wrap
Location:
Appearance:
Layer: of

Asbestos Present:

NOT ANALYZED

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/8/2017 5:00
 Project: 717 EAST PARK TERRACE
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-4 - Plaster	Bag	HA-1	
2	AS 1-2	RM-1 - Plaster	Bag	HA-1	
3	AS 1-3	RM-2 - Plaster	Bag	HA-1	
4	AS 1-4	RM-8 - Plaster	Bag	HA-1	
5	AS 1-5	RM-9 - Plaster	Bag	HA-1	
6	AS 5-1	RM-8 - White tile	Bag	HA-5	
7	AS 5-2	RM-8 - White tile	Bag	HA-5	
8	AS 6-1	RM-9 - Vent wrap	Bag	HA-6	
9	AS 6-2	RM-6 - Vent wrap	Bag	HA-6	
10	AS 7-1	RM-6 - Yellow flooring	Bag	HA-7	
11	AS 7-2	RM-6 - Yellow flooring	Bag	HA-7	
12	AS 8-1	Roof - Shingles	Bag	HA-8	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: 12/13/17 DEC 13 2017 9:00

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73729

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: **2193 Association Drive, Suite 200**
 City, St., Zip: **Okemos, MI, 48864**
 Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/8/2017 5:00**
 Project: **717 EAST PARK TERRACE**
 Project #: **I1440002**
 Contact Person: **Charlie Bush**
 Email: **cbush@manniksmithgroup.com**

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ **72 Hour** _____
 Other: _____ TTP **yes** / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 8-2	Roof - Shingles	Bag	HA-8	
14	AS 2-1	RM-4 - Window glaze	Bag	HA-2	
15	AS 2-2	RM-4 - Window glaze	Bag	HA-2	
16	AS 3-1	RM-3 - Tan linoleum	Bag	HA-3	
17	AS 3-2	RM-3 - Tan linoleum	Bag	HA-3	
18	AS 4-1	RM-4 - Red linoleum	Bag	HA-4	
19	AS 4-2	RM-4 - Red linoleum	Bag	HA-4	
20	AS 9-1	Basement - Cement basement floor	Bag	HA-9	
21	AS 9-2	Basement - Cement basement floor	Bag	HA-9	
22	AS 10-1	Basement - Stack Cement	Bag	HA-10	
23	AS 10-2	Basement - Stack Cement	Bag	HA-10	
24	AS 11-1	RM-3 - Sink under coating	Bag	HA-11	

Relinquished By: _____

Received By: _____

Relinquished By: _____ Received By: _____

Date: **12-13-17**Time/Date: **12/13/17 DEC 13 2017**

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73729

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/8/2017 5:00
 Project: 717 EAST PARK TERRACE
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: _____

Bulk X Wipe _____ Point Count _____ PCM _____

Lead / Cad / Chrome: _____

Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____

Mold: _____

Bulk _____ Air _____ BioSIS _____ Tape _____

TEM: _____

Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 11-2	RM-3 - Sink under coating	Bag	HA-11	
26	AS 12-1	Exterior - Asphalt siding	Bag	HA-12	
27	AS 12-2	Exterior - Asphalt siding	Bag	HA-12	
28	AS 6-3	Vent Wrap			

RECEIVED

Relinquished By: _____

Received By: _____

Relinquished By: _____

Received By: _____

Date: _____

Time/Date: 12/13/17

Date: _____

Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator

Date

Signature of Owner/Operator

Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
843 East Saginaw St, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 843 East Saginaw St, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	843 E Saginaw St, Lansing, MI
Parcel #	33-01-01-10-354-131
No. Stories	2
Square Footage (approx.)	1,300 SF
Siding	Vinyl
Basement	Yes
Garage	Yes



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-5	Red linoleum	Non friable	25% Chrysotile	80 SF

Hazardous Materials		
Location	Material Description	Quantity
Garage	1 Gallon paint can	5
Garage	1 Gallon oil can	3

Universal Waste Inventory		
Location	Material Description	Quantity
RM-2	Fluorescent bulb	2
RM-2, RM-3, RM-8	Smoke detector	3
RM-1	Thermostat	1
RM-2	Television	1
Garage	Tire	1

Hazardous Materials		
Location	Material Description	Quantity
Garage	Air-conditioning unit	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 8, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;

- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twelve (12) homogenous materials that were suspect as asbestos containing during the ACM survey. Twenty-seven (27) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyze bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) material to contain greater than 1% asbestos (sample 5-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twelve (12) homogenous materials collected as part of the ACM survey, one (1) homogenous material contained asbestos greater than 1% (sample 5-1) with this one (1) material (sample 5-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has

become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





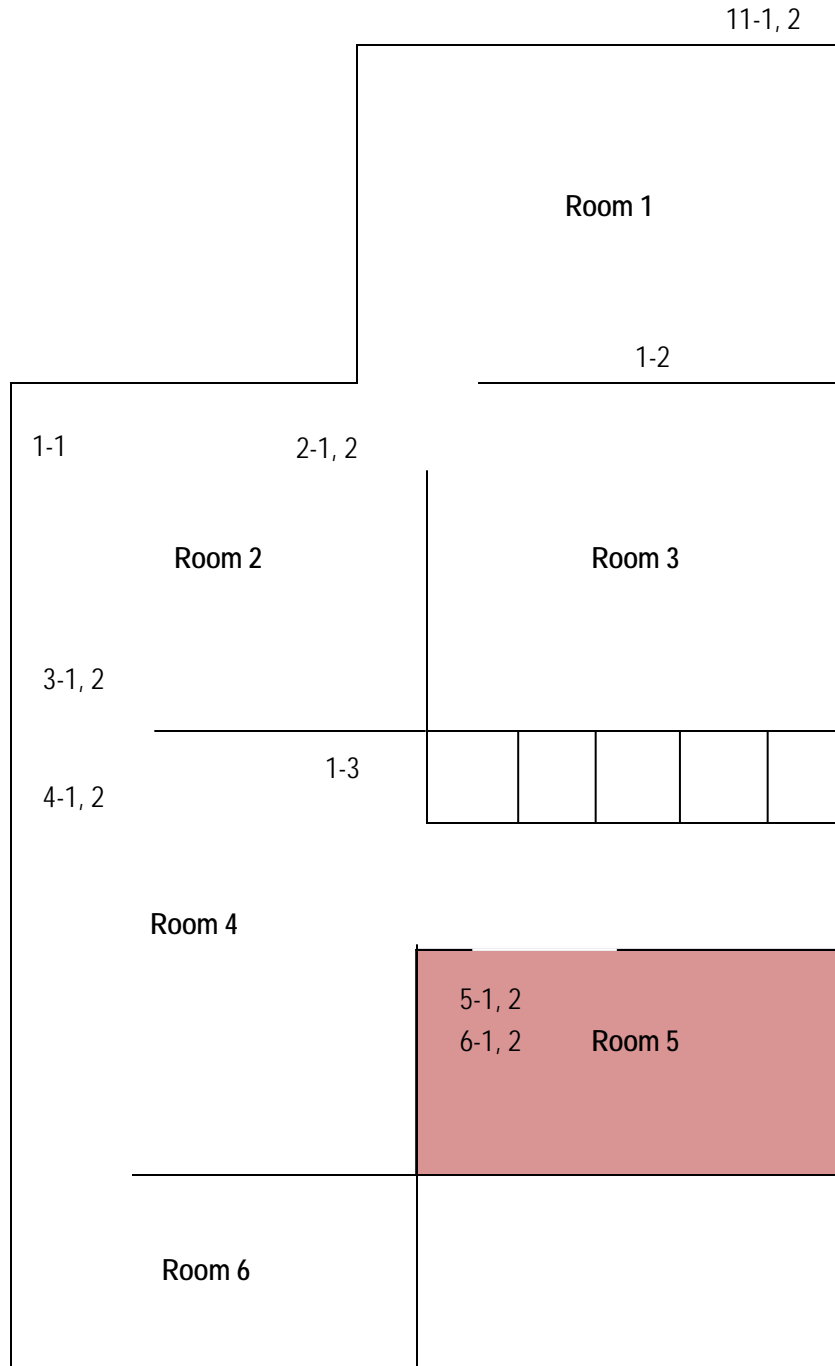
TECHNICAL SKILL.
CREATIVE SPIRIT.

721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 843 E Saginaw St Date: December 11, 2017

Drawing not to scale

1st Floor



 Red Linoleum (80 SF)

#-# = Asbestos Sample



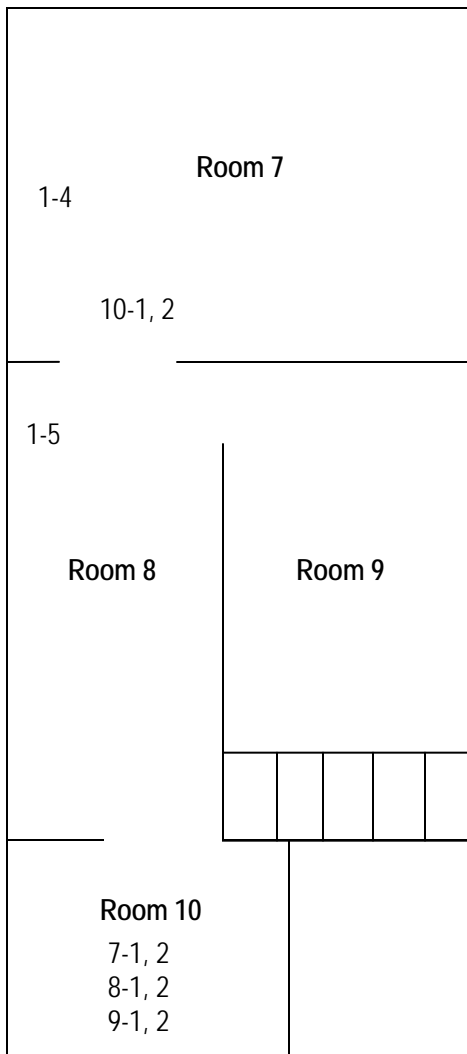
TECHNICAL SKILL.
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721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

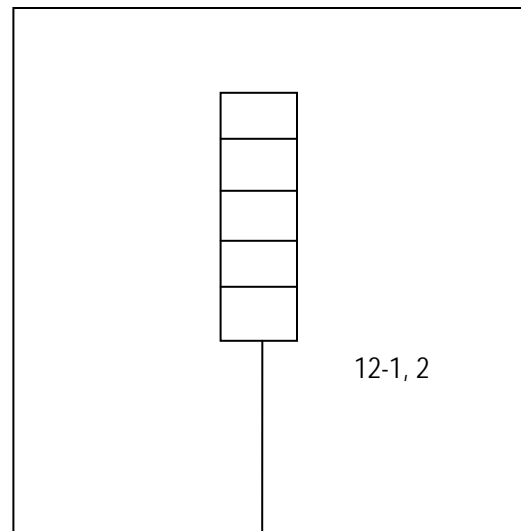
Address: 843 E Saginaw St Date: December 11, 2017

Drawing not to scale

2nd Floor



Basement



#-# = Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		843 E Saginaw St.								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	3600 SF
RM-1	1	AS 1-2	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	3600 SF
RM-4	1	AS 1-3	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	3600 SF
RM-7	2	AS 1-4	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	3600 SF
RM-8	2	AS 1-5	HA-1	Plaster	Non-Friable	Good	Miscellaneous	No	No	3600 SF
RM-2	1	AS 2-1	HA-2	Green linoleum	Non-Friable	Good	Miscellaneous	No	No	300 SF
RM-2	1	AS 2-2	HA-2	Green linoleum	Non-Friable	Good	Miscellaneous	No	No	300 SF
RM-2	1	AS 3-1	HA-3	Faux wood 6x6	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-2	1	AS 3-2	HA-3	Faux wood 6x6	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-4	1	AS 4-1	HA-4	Faux wood 12x12	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 4-2	HA-4	Faux wood 12x12	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-5	1	AS 5-1	HA-5	Red linoleum	Non-Friable	Good	Miscellaneous	Yes	25% Chrysotile	80 SF
RM-5	1	AS 5-2	HA-5	Red linoleum	Non-Friable	Good	Miscellaneous	Yes	NA	80 SF
RM-5	1	AS 6-1	HA-6	Beige tile	Non-Friable	Good	Miscellaneous	No	No	80 SF
RM-5	1	AS 6-2	HA-6	Beige tile	Non-Friable	Good	Miscellaneous	No	No	80 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		843 E Saginaw St.								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-10	2	AS 7-1	HA-7	Green tile	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-10	2	AS 7-2	HA-7	Green tile	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-10	2	AS 8-1	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-10	2	AS 8-2	HA-8	Cream tile	Non-Friable	Good	Miscellaneous	No	No	75 SF
RM-10	2	AS 9-1	HA-9	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-10	2	AS 9-2	HA-9	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	30 SF
RM-7	2	AS 10-1	HA-10	Multicolor Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-7	2	AS 10-2	HA-10	Multicolor Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
Roof	E	AS 11-1	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	560 SF
Roof	E	AS 11-2	HA-11	Shingles	Non-Friable	Good	Miscellaneous	No	No	560 SF
Basement	B	AS 12-1	HA-12	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	576 SF
Basement	B	AS 12-2	HA-12	Cement basement floor	Non-Friable	Good	Miscellaneous	No	No	576 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 843 E Saginaw St.
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-2	Fluorescent bulb	2
RM-8, RM-2, RM-3	Smoke detector	3
RM-1	Thermostat	1
RM-2	Television	1
Garage	Tires	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
Garage	1 Gallon paint can	5
Garage	1 Gallon oil can	3
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
Garage	Air-conditioning unit	1

ATTACHMENT A

PHOTO LOG



Property Photos



843 East Saginaw St, Front of House



Back of House



Side of House



Side of House

Sample Photos



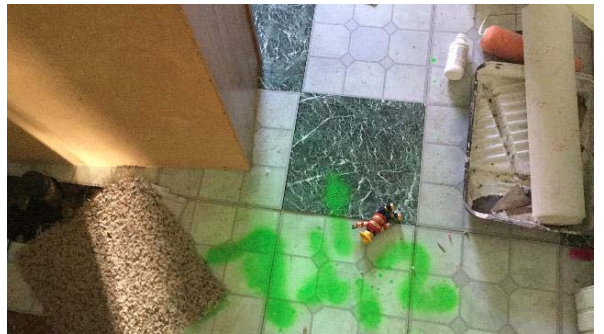
Plaster sample from room 2



Faux wood 6x6 tile sample from room 2



Red linoleum sample from room 5



Green tile sample from room 10



Faux wood linoleum sample from room 10



Multi-colored linoleum from room 7

ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 01 Cust. #: AS1-1 Material: Plaster Location: Room 2 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 73730 - 02 Cust. #: AS1-2 Material: Plaster Location: Room 1 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73730 - 03 Cust. #: AS1-3 Material: Plaster/Mortar Location: Room 4 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 04 Cust. #: AS2-1 Material: Green Linoleum Location: Room 2 Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73730 - 05 Cust. #: AS2-2 Material: Green Linoleum Location: Room 2 Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73730 - 06 Cust. #: AS3-1 Material: Faux Wood 6x6 Location: Room 2 Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 07 Cust. #: AS3-2 Material: Faux Wood 6x6 Location: Room 2 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 08 Cust. #: AS4-1 Material: Faux Wood 12x12 Location: Room 4 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 09 Cust. #: AS4-2 Material: Faux Wood 12x12 Location: Room 4 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 10 Cust. #: AS5-1 Material: Red Linoleum Location: Room 5 Appearance: red, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 25%	Other - 75%
Lab ID #: 73730 - 11 Cust. #: AS5-2 Material: Red Linoleum Location: Room 5 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 73730 - 12 Cust. #: AS6-1 Material: Beige Tile Location: Room 5 Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 13 Cust. #: AS6-2 Material: Beige Tile Location: Room 5 Appearance: beige, nonfibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 14 Cust. #: AS1-4 Material: Plaster Location: Room 7 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73730 - 15 Cust. #: AS1-5 Material: Plaster Location: Room 8 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 15a Cust. #: AS1-5 Material: Mortar Location: Room 8 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73730 - 16 Cust. #: AS7-1 Material: Green Tile Location: Room 10 Appearance: green, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 17 Cust. #: AS7-2 Material: Green Tile Location: Room 10 Appearance: green, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 18 Cust. #: AS8-1 Material: Cream Tile Location: Room 10 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 19 Cust. #: AS8-2 Material: Cream Tile Location: Room 10 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73730 - 20 Cust. #: AS9-1 Material: Faux Wood Linoleum Location: Room 10 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 21 Cust. #: AS9-2 Material: Faux Wood Linoleum Location: Room 10 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 73730 - 22 Cust. #: AS10-1 Material: Multicolor Linoleum Location: Room 7 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73730 - 23 Cust. #: AS10-2 Material: Multicolor Linoleum Location: Room 7 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73730 - 24 Cust. #: AS11-1 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73730 - 25 Cust. #: AS11-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 73730 - 26 Cust. #: AS12-1 Material: Cement Basement Floor Location: Basement Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 843 E. Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73730
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information**Asbestos Type/Percent****Non-Asbestos**

Lab ID #: 73730 - 27
Cust. #: AS12-2
Material: Cement Basement Floor
Location: Basement
Appearance: grey, nonfibrous, homogenous
Layer: 1 of 1

Asbestos Present: **NO**
No Asbestos Observed

Other - 100%

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

Lab ID #:
Cust. #:
Material:
Location:
Appearance:
Layer: of

Asbestos Present:

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/8/2017 5:00
 Project: 843 E SAGINAW ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-2 - Plaster	Bag	HA-1	
2	AS 1-2	RM-1 - Plaster	Bag	HA-1	
3	AS 1-3	RM-4 - Plaster	Bag	HA-1	
4	AS 2-1	RM-2 - Green linoleum	Bag	HA-2	
5	AS 2-2	RM-2 - Green linoleum	Bag	HA-2	
6	AS 3-1	RM-2 - Faux wood 6x6	Bag	HA-3	
7	AS 3-2	RM-2 - Faux wood 6x6	Bag	HA-3	
8	AS 4-1	RM-4 - Faux wood 12x12	Bag	HA-4	
9	AS 4-2	RM-4 - Faux wood 12x12	Bag	HA-4	
10	AS 5-1	RM-5 - Red linoleum	Bag	HA-5	
11	AS 5-2	RM-5 - Red linoleum	Bag	HA-5	
12	AS 6-1	RM-5 - Beige tile	Bag	HA-6	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: 12/13/17 DEC 13 2017 9:00

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73730

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/8/2017 5:00
 Project: 843 E SAGINAW ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 6-2	RM-5 - Beige tile	Bag	HA-6	
14	AS 1-4	RM-7 - Plaster	Bag	HA-1	
15	AS 1-5	RM-8 - Plaster	Bag	HA-1	
16	AS 7-1	RM-10 - Green tile	Bag	HA-7	
17	AS 7-2	RM-10 - Green tile	Bag	HA-7	
18	AS 8-1	RM-10 - Cream tile	Bag	HA-8	
19	AS 8-2	RM-10 - Cream tile	Bag	HA-8	
20	AS 9-1	RM-10 - Faux wood Linoleum	Bag	HA-9	
21	AS 9-2	RM-10 - Faux wood Linoleum	Bag	HA-9	
22	AS 10-1	RM-7 - Multicolor Linoleum	Bag	HA-10	
23	AS 10-2	RM-7 - Multicolor Linoleum	Bag	HA-10	
24	AS 11-1	Roof - Shingles	Bag	HA-11	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: DEC 13 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73730

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



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Date of Survey: 12/8/2017 5:00
 Project: 843 E SAGINAW ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 11-2	Roof - Shingles	Bag	HA-11	
26	AS 12-1	Basement - Cement basement floor	Bag	HA-12	
27	AS 12-2	Basement - Cement basement floor	Bag	HA-12	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: 12/13/17 DEC 13 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____

Emergency Date ____/____/____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____

FOLLOW UP ____/____/____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

☐ Planned Renovation – 10 working days notice

☐ Emergency Renovation

☐ Scheduled Demolition – 10 working days notice

☐ Intentional Burn – 10 working days notice

☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice

☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

START DATE

END DATE

* Renovation _____

+Asb. Removal _____

+Demolition: _____

Encapsulation: _____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

Days of the Week

Work Hours

Asb. Removal: _____

Demolition: _____

Encapsulation: _____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.

+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____

Location Address/Description: _____

_____ If Apt. # of units: _____

City/Twp. _____ State: _____ Zip Code: _____

County: _____ Nearest Crossroad: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____

Location Address: _____

City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____

Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be
Removed

RACM to be
Encapsulated

Non-friable ACM not
removed prior to demo.

Category I

Category II

Units of Measure

				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



January 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
901 East Saginaw, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 901 East Saginaw, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	901 E Saginaw, Lansing, MI
Parcel #	33-01-01-10-354-141
No. Stories	2
Square Footage (approx.)	1,010 SF
Siding	Vinyl and Asphalt
Basement	Yes
Garage	Yes



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-1, RM-2, RM-4, RM-5, RM-6, RM-7, RM-8 (walls and ceilings)	Plaster	Non friable	2% Chrysotile	2,850 SF

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1, Basement	Smoke detector	2

Hazardous Materials		
Location	Material Description	Quantity
No hazardous materials were found on site		

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 8, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-

acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified seventeen (17) homogenous materials that were suspect as asbestos containing during the ACM survey. Thirty-nine (39) bulk samples were collected from these suspect homogeneous materials and were submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found one (1) material (plaster) to contain greater than 1% asbestos (sample 2-1). The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the seventeen (17) homogenous materials collected as part of the ACM survey, one (1) material (plaster) contained asbestos greater than 1% (sample 2-1) with this one (1) material (sample 2-1) being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

A handwritten signature in blue ink, appearing to read 'Kory McKay', with a long horizontal flourish extending to the right.

Kory McKay
Environmental Scientist
Accreditation Number A47903

A handwritten signature in blue ink, appearing to read 'Charlie Bush', with a long horizontal flourish extending to the right.

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

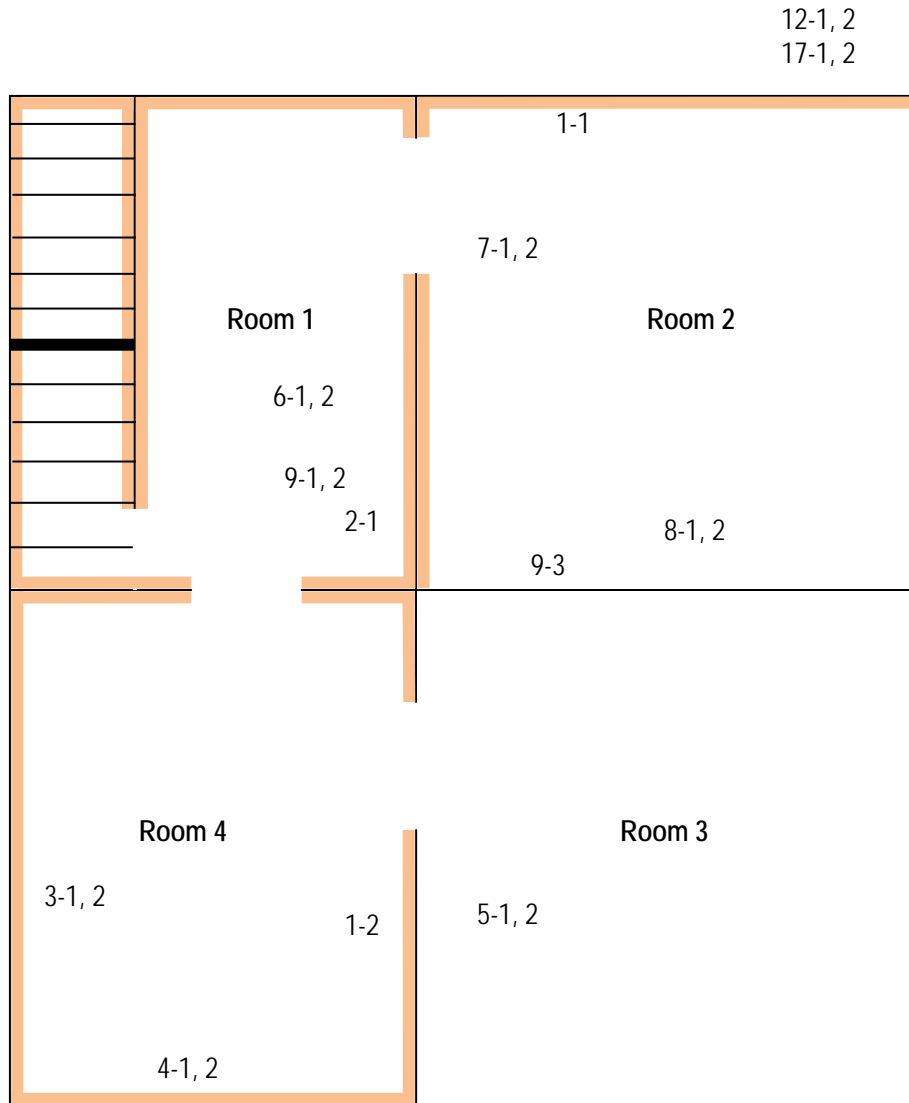
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com


Address: 901 E Saginaw

Date: December 11, 2017

Drawing not to scale

1st Floor



 Plaster Walls and Ceilings (2,850 SF)

#-# = Asbestos Sample



TECHNICAL SKILL.
CREATIVE SPIRIT.

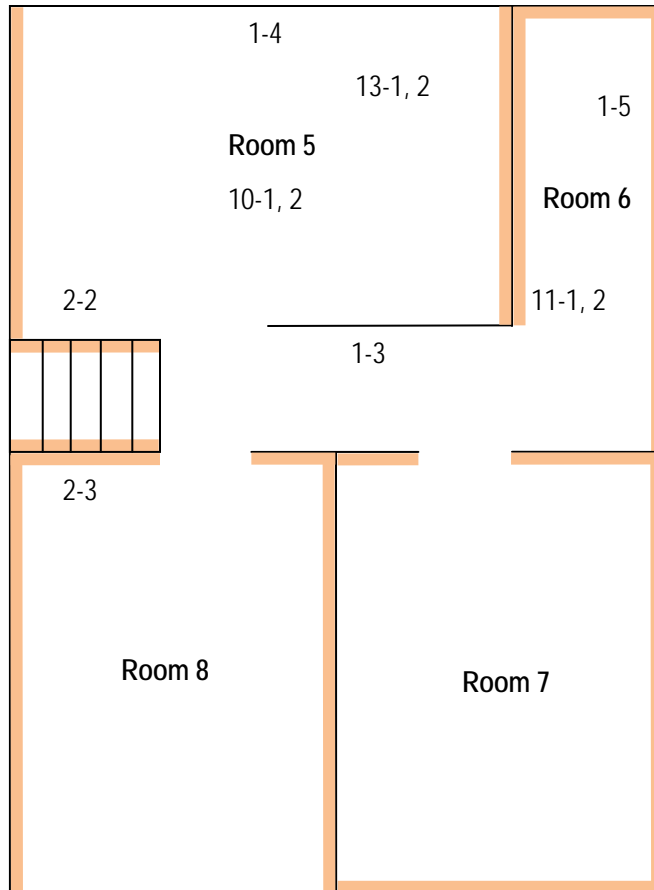
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 901 E Saginaw

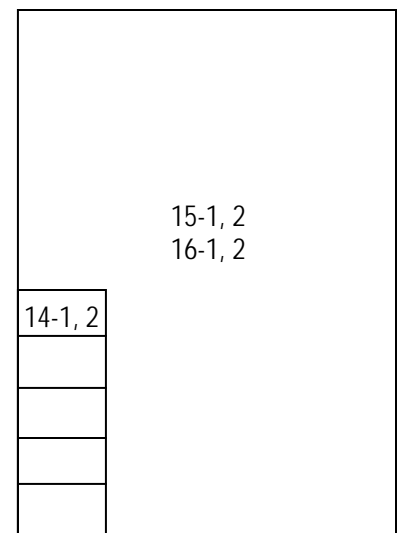
Date: December 11, 2017

Drawing not to scale

2nd Floor



Basement



 Plaster Walls and Ceilings (2,850 SF)

#-# = Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		901 E Saginaw St.								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-4	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-5	2	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-5	2	AS 1-4	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-6	2	AS 1-5	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1735 SF
RM-1	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	2850 SF
RM-5	2	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	2850 SF
RM-8	2	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	Yes	NA	2850 SF
RM-4	1	AS 3-1	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-4	1	AS 3-2	HA-3	Window glaze	Non-Friable	Good	Miscellaneous	No	No	180 SF
RM-4	1	AS 4-1	HA-4	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	108 SF
RM-4	1	AS 4-2	HA-4	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	108 SF
RM-3	1	AS 5-1	HA-5	White 12x12 sandwich	Non-Friable	Good	Miscellaneous	No	No	210 SF
RM-3	1	AS 5-2	HA-5	White 12x12 sandwich	Non-Friable	Good	Miscellaneous	No	No	210 SF
RM-1	1	AS 6-1	HA-6	Red tile	Non-Friable	Good	Miscellaneous	No	No	70 SF
RM-1	1	AS 6-2	HA-6	Red tile	Non-Friable	Good	Miscellaneous	No	No	70 SF
RM-2	1	AS 7-1	HA-7	Cream 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-2	1	AS 7-2	HA-7	Cream 12x12 tile	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-2	1	AS 8-1	HA-8	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	40 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		901 E Saginaw St.								
Survey Date		December 8, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 8-2	HA-8	Faux wood Linoleum	Non-Friable	Good	Miscellaneous	No	No	40 SF
RM-1	1	AS 9-1	HA-9	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-1	1	AS 9-2	HA-9	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-2	1	AS 9-3	HA-9	Textured ceiling	Friable	Good	Miscellaneous	No	No	550 SF
RM-5	2	AS 10-1	HA-10	Black flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-5	2	AS 10-2	HA-10	Black flooring	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-6	2	AS 11-1	HA-11	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	60 SF
RM-6	2	AS 11-2	HA-11	Brown Linoleum	Non-Friable	Good	Miscellaneous	No	No	60 SF
Roof	E	AS 12-1	HA-12	Black roofing	Non-Friable	Good	Miscellaneous	No	No	450 SF
Roof	E	AS 12-2	HA-12	Black roofing	Non-Friable	Good	Miscellaneous	No	No	450 SF
RM-5	2	AS 13-1	HA-13	Ceiling tile glue dots	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-5	2	AS 13-2	HA-13	Ceiling tile glue dots	Non-Friable	Good	Miscellaneous	No	No	100 SF
Basement	B	AS 14-1	HA-14	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	30 SF
Basement	B	AS 14-2	HA-14	Faux stone tile	Non-Friable	Good	Miscellaneous	No	No	30 SF
Basement	B	AS 15-1	HA-15	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 15-2	HA-15	Basement cement floor	Non-Friable	Good	Miscellaneous	No	No	400 SF
Basement	B	AS 16-1	HA-16	Cement stack	Non-Friable	Good	Miscellaneous	No	No	4 SF
Basement	B	AS 16-2	HA-16	Cement stack	Non-Friable	Good	Miscellaneous	No	No	4 SF
Exterior	E	AS 17-1	HA-17	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1600 SF
Exterior	E	AS 17-2	HA-17	Asphalt siding	Non-Friable	Good	Miscellaneous	No	No	1600 SF

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 901 E Saginaw St.
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1, Basement	Smoke detector	2
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



901 East Saginaw St, Front of House



Back of House



Side of House



Side of House

Sample Photos



Plaster sample from room 1



Window glaze sample from room 4



Red tile sample from room 1



Black flooring sample from room 5



Brown linoleum sample from room 6



Asphalt siding sample from exterior

ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 901 E Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73723
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 01 Cust. #: AS1-1 Material: Joint Compound Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 01a Cust. #: AS1-1 Material: Drywall Location: Room 2 Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73723 - 02 Cust. #: AS1-2 Material: Drywall Location: Room 4 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 901 E Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73723
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 03 Cust. #: AS2-1 Material: Plaster Location: Room 1 Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2%	Hair - 2% Other - 96%
Lab ID #: 73723 - 04 Cust. #: AS3-1 Material: Window Glaze Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 05 Cust. #: AS3-2 Material: Window Glaze Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 901 E Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73723
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 06 Cust. #: AS4-1 Material: Tan Linoleum Location: Room 4 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 07 Cust. #: AS4-2 Material: Tan Linoleum Location: Room 4 Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 08 Cust. #: AS5-1 Material: White 12x12 Sandwich Location: Room 3 Appearance: beige,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 901 E Saginaw St
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73723
Date Collected: 12/08/17
Date Received: 12/13/17
Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 09 Cust. #: AS5-2 Material: White 12x12 Sandwich Location: Room 3 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 10 Cust. #: AS6-1 Material: Red Tile Location: Room 1 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 11 Cust. #: AS6-2 Material: Red Tile Location: Room 1 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 12 Cust. #: AS7-1 Material: Cream 12x12 Tile Location: Room 2 Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 13 Cust. #: AS7-2 Material: Cream 12x12 Tile Location: Room 2 Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 14 Cust. #: AS8-1 Material: Faux Wood Linoleum Location: Room 2 Appearance: brown, nonfibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Collected: 12/08/17
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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 15 Cust. #: AS8-2 Material: Faux Wood Linoleum Location: Room 2 Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 16 Cust. #: AS9-1 Material: Textured Ceiling Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 17 Cust. #: AS9-2 Material: Textured Ceiling Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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ARI Report # 17-73723
Date Collected: 12/08/17
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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 18 Cust. #: AS9-3 Material: Textured Ceiling Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 19 Cust. #: AS2-2 Material: Plaster Location: Room 5 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73723 - 20 Cust. #: AS1-4 Material: Drywall Location: Room 5 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 21 Cust. #: AS1-3 Material: Drywall Location: Room 5 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 22 Cust. #: AS2-3 Material: Plaster Location: Room 8 Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 73723 - 23 Cust. #: AS1-5 Material: Drywall Location: Room 6 Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 24 Cust. #: AS10-1 Material: Black Flooring Location: Room 5 Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73723 - 25 Cust. #: AS10-2 Material: Black Flooring Location: Room 5 Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73723 - 26 Cust. #: AS11-1 Material: Brown Linoleum Location: Room 6 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 27 Cust. #: AS11-2 Material: Brown Linoleum Location: Room 6 Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73723 - 28 Cust. #: AS12-1 Material: Black Roofing Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 20% Other - 80%
Lab ID #: 73723 - 29 Cust. #: AS12-2 Material: Black Roofing Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Synthetic - 20% Other - 80%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 30 Cust. #: AS13-1 Material: Ceiling Tile Glue Dots Location: Room 5 Appearance: brown,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 31 Cust. #: AS13-2 Material: Ceiling Tile Glue Dots Location: Room 5 Appearance: yellow,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 32 Cust. #: AS14-1 Material: Faux Stone Tile Location: Basement Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 33 Cust. #: AS14-2 Material: Faux Stone Tile Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 34 Cust. #: AS15-1 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73723 - 35 Cust. #: AS15-2 Material: Basement Cement Floor Location: Basement Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 36 Cust. #: AS16-1 Material: Cement Stack Location: Basement Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 20% Other - 80%
Lab ID #: 73723 - 37 Cust. #: AS16-2 Material: Cement Stack Location: Basement Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 20% Other - 80%
Lab ID #: 73723 - 38 Cust. #: AS17-1 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Date Collected: 12/08/17
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Date Analyzed: 12/18/17
Date Reported: 12/18/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73723 - 39 Cust. #: AS17-2 Material: Asphalt Siding Location: Exterior Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: **2193 Association Drive, Suite 200**
 City, St., Zip: **Okemos, MI, 48864**
 Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/8/2017 5:00**
 Project: **901 E SAGINAW ST**
 Project #: **I1440002**
 Contact Person: **Charlie Bush**
 Email: **cbush@manniksmithgroup.com**

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____
 48 Hour _____ **72 Hour** _____
 Other: _____ TTP **yes** / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk **X** Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 1-1	RM-2 - Drywall	Bag	HA-1	
2	AS 1-2	RM-4 - Drywall	Bag	HA-1	
3	AS 2-1	RM-1 - Plaster	Bag	HA-2	
4	AS 3-1	RM-4 - Window glaze	Bag	HA-3	
5	AS 3-2	RM-4 - Window glaze	Bag	HA-3	
6	AS 4-1	RM-4 - Tan linoleum	Bag	HA-4	
7	AS 4-2	RM-4 - Tan linoleum	Bag	HA-4	
8	AS 5-1	RM-3 - White 12x12 sandwich	Bag	HA-5	
9	AS 5-2	RM-3 - White 12x12 sandwich	Bag	HA-5	
10	AS 6-1	RM-1 - Red tile	Bag	HA-6	
11	AS 6-2	RM-1 - Red tile	Bag	HA-6	
12	AS 7-1	RM-2 - Cream 12x12 tile	Bag	HA-7	

Relinquished By:

Received By:

Relinquished By: _____ Received By: _____

Date: **12-13-17**Time/Date: **12/13/17 DEC 13 2017**

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73723

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Date of Survey: 12/8/2017 5:00
 Project: 901 E SAGINAW ST
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: _____ TIP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 7-2	RM-2 - Cream 12x12 tile	Bag	HA-7	
14	AS 8-1	RM-2 - Faux wood Linoleum	Bag	HA-8	
15	AS 8-2	RM-2 - Faux wood Linoleum	Bag	HA-8	
16	AS 9-1	RM-1 - Textured ceiling	Bag	HA-9	
17	AS 9-2	RM-1 - Textured ceiling	Bag	HA-9	
18	AS 9-3	RM-2 - Textured ceiling	Bag	HA-9	
19	AS 2-2	RM-5 - Plaster	Bag	HA-2	
20	AS 1-4	RM-5 - Drywall	Bag	HA-1	
21	AS 1-3	RM-5 - Drywall	Bag	HA-1	
22	AS 2-3	RM-8 - Plaster	Bag	HA-2	
23	AS 1-5	RM-6 - Drywall	Bag	HA-1	
24	AS 10-1	RM-5 - Black flooring	Bag	HA-10	

Relinquished By: _____

Received By: J. A. [Signature]

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: 12/13/17 DEC 13 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

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 Email: cbush@manniksmithgroup.com

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Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbstos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 10-2	RM-5 - Black flooring	Bag	HA-10	
26	AS 11-1	RM-6 - Brown Linoleum	Bag	HA-11	
27	AS 11-2	RM-6 - Brown Linoleum	Bag	HA-11	
28	AS 12-1	Roof - Black roofing	Bag	HA-12	
29	AS 12-2	Roof - Black roofing	Bag	HA-12	
30	AS 13-1	RM-5 - Ceiling tile glue dots	Bag	HA-13	
31	AS 13-2	RM-5 - Ceiling tile glue dots	Bag	HA-13	
32	AS 14-1	Basement - Faux stone tile	Bag	HA-14	
33	AS 14-2	Basement - Faux stone tile	Bag	HA-14	
34	AS 15-1	Basement - Basement cement floor	Bag	HA-15	
35	AS 15-2	Basement - Basement cement floor	Bag	HA-15	
36	AS 16-1	Basement - Cement stack	Bag	HA-16	

Relinquished By: _____

Received By: _____

Relinquished By: _____ Received By: _____

Date: 12-13-17

Time/Date: 12/13/17 DEC 13 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

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 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk X Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
37	AS 16-2	Basement - Cement stack	Bag	HA-16	
38	AS 17-1	Exterior - Asphalt siding	Bag	HA-17	
39	AS 17-2	Exterior - Asphalt siding	Bag	HA-17	

Relinquished By: [Signature]

Date: 12-13-17

Revision R4 Date: May/2017

Received By: [Signature]Time/Date: [Signature]

RECEIVED

DEC 13 2017

Relinquished By: _____ Received By: _____

Date: _____ Time/Date: _____

APEX RESEARCH

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator

Date

Signature of Owner/Operator

Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



January 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: 903 E Saginaw St., Lansing – Property Accessibility Determination

Dear Ms. Case,

The Mannik & Smith Group, Inc. (MSG) has conducted an evaluation as to the accessibility of the above referenced property structure prior to demolition for the purpose of conducting a Hazardous Material Survey HMS [aka Regulated Material Survey (RMS)], including an asbestos survey.

Based on a site visit conducted on December 8, 2017, MSG has determined that the structure is damaged and unsafe to enter for the purpose of conducting an HMS. Please find the attached photographic logs summarizing photographs of the site structure taken during the site visit on December 8, 2017 documenting the unsafe nature of the site structure. It is MSG's professional opinion that due to the damaged and unsafe condition of the site structure, the structure is inaccessible and an HMS is not required prior to demolition so long as the appropriate National Emission Standards for Hazardous Air Pollutants (NESHAPs) and Michigan Occupational Safety and Health Administration (MIOSHA) regulations and other pertinent local, state and federal regulations are followed. MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

Should you have any questions or require additional information, please do not hesitate to contact us at (517) 316-9232.

Sincerely,

Kory McKay
Environmental Scientist
Accreditation Number A47903

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

Property Photos



903 E Saginaw St, Front of House



Back of House



Side of House



Side of House

Property Photos



View of burned kitchen



View facing east from kitchen



View of burned southwestern room



Andy Schor, Mayor

CITY OF LANSING
Department of Economic Development and Planning

316 N. Capitol Ave., Suite C-1 – Lansing, MI 48933-1238

(517) 483-4355 – Fax (517) 377-0169

Brian McGrain, Director

www.LansingMi.gov

Office of Building Safety
Unsafe Structures Notice

February 28, 2018

Ingham County Land Bank
Fast Track Authority
3024 Turner Street
Lansing, Michigan 48906

Regarding: 903 East Saginaw Street
Parcel: #33-01-01-10-354-151

Dear ICLB,

This letter is in regard to the unsafe structure and unsafe site conditions at the aforementioned address. After a review of the site and structure this office has declared this site, structure and Use (R-3), unsafe to occupy in any part and is in structural failure. Therefore the site shall be properly secured to prevent anyone from entry and the structure shall be made safe or removed as stated herein. It is imperative and time is of the essence that steps be taken to address these issues. To ensure the health, safety and welfare for neighbors and the public, the City of Lansing and the State of Michigan requires that the building and site be protected, repaired and/or removed immediately.

This letter shall serve as notice that the property shall be made safe as set forth by the STILLE-DEROSSETT-HALE- SINGLE STATE CONSTRUCTION CODE ACT, Act 230 of 1972 known as the Michigan Building Code 2015 with amendments, in particular section 116.1 of the Michigan Building Code 2015; “Structures or existing equipment that are or hereafter become unsafe, insanitary or deficient because of inadequate means of egress facilities, inadequate light and ventilation, or which constitutes a fire hazard, or are otherwise dangerous to human life or the public welfare, or that involve illegal or improper occupancy or inadequate maintenance, shall be deemed unsafe an unsafe condition. Unsafe structures shall be taken down and removed or made safe, as the Building Official deems necessary and as provided for in this section. A vacant structure that is not secured against entry shall be deemed unsafe.”

It is our understanding that measures need to be implemented to abate the structural hazards. This office approves the implementation of any and all measures to abate said hazards as set forth by the code.

Should you have any questions please feel free to contact me at (517) 483-4365 or at Steve.Swan@lansingmi.gov or visit our City web site at cityoflansing.com

Thank you,

A handwritten signature in blue ink, consisting of several fluid, overlapping strokes that form a stylized representation of the name 'Steven M. Swan'.

Steven M. Swan, C.B.O.
Chief Building Inspector
City of Lansing, Michigan



March 2, 2018

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Limited Pre-Demolition Regulated Materials Survey
903 East Saginaw Street, Lansing, Ingham County, Michigan

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 903 East Saginaw Street, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Charlie Bush (Accreditation Number A34293) .

SUMMARY

Building Information	
Property Address	903 E Saginaw St., Lansing, MI
Parcel #	33-01-01-10-354-151
No. Stories	2
Square Footage (approx.)	1,360 SF
Siding	Wood and Vinyl
Basement	Yes
Garage	Yes



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
Samples collected on the exterior of the building contained no asbestos				

PURPOSE AND SCOPE OF WORK

The property has been identified as unsafe to enter and as a result a complete RMS cannot be conducted on the property. The purpose of this limited RMS was to identify, quantify and document the location of regulated materials that could safely be inspected and that may be encountered during demolition of the on-site structure. This limited the inspection to the properties building exterior. To accomplish this purpose, MSG performed the following scope of work:

- 1) Limited pre-demolition asbestos-containing material (ACM) survey on the safe and accessible areas of the Site building.

TECHNICAL SKILL.
CREATIVE SPIRIT.

METHODOLOGIES

The partial RMS on the exterior of the building was conducted on February 22, 2018. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM located on the exterior of the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of the safe and accessible parts of the Site building, primarily the exterior and roof. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Charlie Bush (Accreditation Number A34293). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM where safely accessible in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG was unable gain access to the interior of the building to conduct this portion of the survey due to unsafe conditions.

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG was able to safely collect samples from three (3) homogenous materials from the exterior of the building that were suspect as asbestos containing during the ACM survey. One (1) bulk sample was collected from each suspect homogeneous material and submitted to APEX Research, Inc. (APEX) for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. APEX is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyze bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found no material to contain greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. No samples were point counted.

See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

A universal waste, hazardous material, and/or other regulated material waste survey was not completed as part of this RMS report due to MSG's inability to safely enter the Site building.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the three (3) homogenous materials collected as part of the ACM survey, no material contained asbestos greater than 1%.

MSG recommends that the Ingham County Land Bank (ICLB) declare that the structure is inaccessible due to its damaged and unsafe condition (if not already done so) so that demolition of the structure can be completed without further delay. The ICLB and its demolition contractor should be aware however of the following associated with the demolition:

- The entire structure will need to be considered asbestos-containing during demolition and appropriate procedures must be followed (i.e. materials must be kept adequately wet at all times, personnel must have appropriate training, etc.);
- Potential for higher disposal costs associated with asbestos contaminated debris;
- Potential for recycling of materials reduced.

If you have any questions or concerns regarding the above information please contact us at 734-397-3100.

Sincerely,

A handwritten signature in blue ink, appearing to read 'C. Bush'.

Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		903 East Saginaw Street								
Survey Date		February 22, 2018								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
Exterior	1	AS1-1	HA-1	Window Glaze	Non-Friable	Good	Miscellaneous	No	No	12 Windows
Exterior	1	AS2-1	HA-2	Exterior Paper Wrap	Non-Friable	Good	Miscellaneous	No	No	2,250 SF
Exterior	1	AS3-1	HA-3	Exterior Concrete	Non-Friable	Good	Miscellaneous	No	No	120 SF

ATTACHMENT A

PHOTO LOG



Property Photos



903 E Saginaw St, Front of House



Back of House



Side of House



Side of House

Property Photos



View of burned kitchen



Window glaze sample AS1-1



View facing east from kitchen



Exterior concrete sample AS3-1



View of burned southwestern room

ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OSHA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including but not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 903 E. Saginaw St.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 18-75187
Date Collected: 02/22/18
Date Received: 02/23/18
Date Analyzed: 02/27/18
Date Reported: 02/28/18

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 75187 - 01 Cust. #: AS1-1 Material: Window Glaze Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 75187 - 02 Cust. #: AS2-1 Material: Exterior Paper Wrap Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 75187 - 03 Cust. #: AS3-1 Material: Exterior Concrete Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



NVLAP Lab Code 102118-0



Lab Use Only

Email:

(Test Till Positive)

Asbestos:

Bulk	NIOSH	FPA Level II	Other
1	1	1	1
2	2	2	2
3	3	3	3
4	4	4	4
5	5	5	5
6	6	6	6
7	7	7	7
8	8	8	8
9	9	9	9
10	10	10	10
11	11	11	11
12	12	12	12
13	13	13	13
14	14	14	14
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34	34	34	34
35	35	35	35
36	36	36	36
37	37	37	37
38	38	38	38
39	39	39	39
40	40	40	40
41	41	41	41
42	42	42	42
43	43	43	43
44	44	44	44
45	45	45	45
46	46	46	46
47	47	47	47
48	48	48	48
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51	51	51	51
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88	88	88	88
89	89	89	89
90	90	90	90
91	91	91	91
92	92	92	92
93	93	93	93
94	94	94	94
95	95	95	95
96	96	96	96
97	97	97	97
98	98	98	98
99	99	99	99
100	100	100	100

[illegible]

Received By:

Time/Date:

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____

Emergency Date ____/____/____ Valid No. _____

☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____

FOLLOW UP ____/____/____ Spoke w/ _____

Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)

Total Project Cost: _____ x 0.01 = _____

Type of Contractor: _____ License No.: _____

Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____

Date of Revision(s): _____

Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

☐ Planned Renovation – 10 working days notice

☐ Emergency Renovation

☐ Scheduled Demolition – 10 working days notice

☐ Intentional Burn – 10 working days notice

☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice

☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

Days of the Week

Work Hours

Asb. Removal: _____

Demolition: _____

Encapsulation: _____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.

+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____

Mailing Address: _____

City/State/Zip: _____

E-mail: _____

Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____

Location Address/Description: _____

_____ If Apt. # of units: _____

City/Twp. _____ State: _____ Zip Code: _____

County: _____ Nearest Crossroad: _____

Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____

Age: _____ Present Use: _____ Prior Use: _____

Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____

Location Address: _____

City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____

Address: _____

City/State/Zip: _____

Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____

Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be
Removed

RACM to be
Encapsulated

Non-friable ACM not
removed prior to demo.

Category I

Category II

Units of Measure

				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)



December 29, 2017

Ms. Roxanne Case
Grant Manager
Ingham County Land Bank
3024 Turner Street
Lansing, Ingham County, Michigan 48906

Re: Pre-Demolition Regulated Materials Survey
804 N Pennsylvania Ave, Lansing, Ingham County, MI

Dear Ms. Case:

The Mannik & Smith Group, Inc. (MSG) is pleased to present Ingham County with the results of the limited pre-demolition regulated materials survey (RMS) performed at 804 N Pennsylvania Ave, Lansing, Ingham County, Michigan (hereinafter referred to as the "Site") by Kory McKay (Accreditation Number A47903).

SUMMARY

Building Information	
Property Address	804 N Pennsylvania, Lansing, MI
Parcel #	33-01-01-10-376-061
No. Stories	3
Square Footage (approx.)	1,800 SF
Siding	White siding
Basement	Yes
Garage	No



Asbestos Containing Material				
Location	Material Group	Friable/Non Friable	Asbestos	Quantity
RM-2, RM-3, RM-4, RM-5	Vent wrap	Friable	30% Chrysotile	220 SF
RM-3, RM-4	Flooring sandwich	Non Friable	2% Chrysotile	240 SF

Hazardous Materials		
Location	Material Description	Quantity
RM-1	Spray paint can	1

TECHNICAL SKILL.
CREATIVE SPIRIT.

Universal Waste Inventory		
Location	Material Description	Quantity
RM-1	Thermostat	1

PURPOSE AND SCOPE OF WORK

The purpose of the RMS was to identify, quantify and document the location of regulated materials that may be encountered during demolition of the on-site structure. To accomplish this purpose, MSG performed the following scope of work:

- 1) Pre-demolition asbestos-containing material (ACM) survey.
- 2) Universal wastes, hazardous materials, and other regulated wastes survey.

METHODOLOGIES

The RMS was conducted on December 20, 2017. Methodologies employed during the completion of each task of the RMS are detailed below.

ACM Survey Procedures

The ACM survey was performed in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763. The National Emission Standards for Hazardous Air Pollutants (NESHAP) regulations govern demolition and renovation activities in which asbestos is present. The NESHAP rule distinguishes between Regulated Asbestos-Containing Materials (RACM) that would readily release asbestos fibers when damaged or disturbed and those materials that are unlikely to result in significant fiber release during demolition activities. The purpose of this survey is to determine if ACM within the Site building are RACM and thus, subject to the NESHAP, and to comply with the Michigan Occupational Safety and Health Administration (MIOSHA) and guidelines set forth in the Occupational Safety and Health Administration (OSHA) Regulations Standards 29 CFR 1910.1101.

RACM, as defined by NESHAP, is classified into four parts, (1) friable asbestos material, (2) Category I non-friable ACM (packing, gaskets, floor tile and roofing products) that has become friable, (3) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, or (4) Category II non-friable ACM (all other ACM products) 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 demolition or renovation operations.

The suspect ACM identified during this survey was grouped into homogeneous materials (i.e. similar materials which are uniform in color and texture) and:

- Described and quantified it in linear feet (LF) or square feet (SF);
- Identified and classified as friable or non-friable;
- Assessed as being in good, fair or poor condition;
- Assigned an EPA classification type (surfacing material, thermal system insulation or miscellaneous);
- Classified as RACM or non-RACM; and
- Sampled, or identified as presumed ACM (PACM).

MSG performed services associated with the ACM survey in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. The ACM survey included a systematic visual inspection of readily accessible areas of the Site building. Destructive sampling methods were used and suspect ACM samples were collected by State of Michigan Accredited Asbestos Inspector, Kory McKay (Accreditation Number A47903). Based on the quantity of each classification of material, MSG collected samples of each suspect ACM in accordance with EPA guidelines.

Universal Wastes and Hazardous Material Survey Procedures

MSG identified and inventoried universal wastes and hazardous materials by a visual reconnaissance of the Site. Materials were identified, described, and quantified to the extent possible; however, no equipment or containers were opened and/or sampled as part of this survey.

A hazardous material, as defined in OSHA 29 CFR 1910.1200, is any item or chemical which is a "health hazard" or "physical hazard", including the following:

- Chemicals that are carcinogens, toxic or highly toxic agents, reproductive toxins, irritants, corrosives, hepatotoxins, nephrotoxins, neurotoxins, agents that act on the hematopoietic system, and agents that damage the lungs, skin, eyes, or mucous membranes;
- Chemicals that are combustible liquids, compressed gases, explosives, flammable liquids, flammable solids, organic peroxides, oxidizers, pyrophorics, unstable (reactive) or water-reactive;
- Chemicals that, in the course of normal handling, use or storage, may produce or release dusts, gases, fumes, vapors, mists or smoke which have any of the above characteristics; and
- Any item or chemical which, when being transported or moved, is a risk to public safety or an environmental hazard, and is regulated as such by one or more of the following:
 - DOT - Department of Transportation; Hazardous Materials Regulations (49 CFR 100-180);
 - IMO - International Maritime Organization; International Maritime Dangerous Goods (IMDG) Code;
 - IATA - International Air Transport Association; Dangerous Goods Regulations;
 - ICAO - International Civil Aviation Organization; Technical Instructions; and
 - AF - Air Force "INTERSERVICE" Manual, Preparing Hazmat for Military Air Shipments (AFMAN 24-204).

Hazardous materials may also include:

- Any item or chemical listed in the United States Environmental Protection Agency (USEPA) *List of Hazardous Substances and Reportable Quantities*, dated September 1992.
- Noticeable as inventory under the reporting requirements of the Hazardous Chemical Reporting (40 CFR Part 302).
- An environmental release under the reporting requirements of the Toxic Chemical Release Reporting: Community Right To Know (40 CFR Part 372) or under Part 201, Environmental Remediation of the Michigan Natural Resources and Environmental Protection Act, 1994 PA 451, as amended (Part 201) and Part 213, Leaking Underground Storage Tanks (Part 213).

These would include chemicals with special characteristics which, in the opinion of the manufacturer, can cause harm to people, plants, or animals when released by spilling, leaking, pumping, pouring, emitting, emptying, discharging, injecting, escaping, leaching, dumping, or disposing into the environment (including the abandonment or discarding of barrels, containers, and other receptacles).

Universal wastes are waste that comes primarily from consumer products containing mercury, lead, cadmium or other substances that are hazardous to human health and the environment. These items cannot be discarded in household trash nor disposed of in landfills but have less stringent handling and disposal requirements than hazardous waste streams. In Michigan, universal wastes are regulated by the MDEQ Office of Waste Management and Radiological Protection under Part 111 of Act 451 and the federal Resource Conservation and Recovery Act (RCRA) of 1976 under 40 CFR Part 273. Universal waste is also regulated by the US Department of Transportation (US DOT) under 49 CFR Parts 171 through 180. Most of the universal waste requirements overseen by the DEQ are addressed by R 299.9228 of Part 111 of 1994 P.A. 451, as amended and 40 CFR Part 273. These regulations are designed to encourage proper collection, recycling, treatment, or disposal of these wastes.

Examples of universal waste are mercury-containing equipment (e.g. thermostats, barometers, manometers, temperature and pressure gauges, and mercury switches), nickel-cadmium and spent lead-

acid batteries, lamps (e.g. incandescent, fluorescent, high intensity discharge, neon, mercury vapor, and high pressure sodium and metal halide), pesticides, polychlorinated biphenyl (PCB) containing transformers and light ballasts, stored chemical and/or petroleum products, etc. In Michigan, Part 111 also includes pharmaceutical and consumer electronics as additional types of universal wastes.

Other Regulated Materials

This RMS also included identifying and inventorying other regulated materials which may pose physical or chemical concerns during demolition of the Site building(s) including chlorofluorocarbon (CFC) containing devices, tanks, vessels, equipment, and building materials that may contain or become contaminated with hazardous materials.

Specifically, CFC containing devices are regulated Under Title VI of the Clean Air Act (CAA). The Stratospheric Protection Division of the EPA manages programs protecting the stratospheric ozone layer. Title 40, Part 82 of the Code of Federal Regulations contains the EPA regulations protecting the ozone layer. The RMS survey of the premises identified and quantified any CFC containers and CFC containing equipment, which could include the following:

- Drinking fountains, air conditioners, refrigerators
- Air conditioners in control panels and other process equipment
- Water and air chillers
- Roof top and stand-alone air conditioners
- Cafeteria equipment: freezers, walk-in coolers/freezers
- CFC canisters and cylinders

In Michigan, underground storage tanks are regulated under the authority of Part 211, Underground Storage Tank Regulations, of Act 451 of 1994, as amended, and the Michigan Underground Storage Tank Rules (MUSTR). Therefore, this survey included whether any evidence of underground storage tanks and related piping and dispensers were present at the Site.

MSG also surveyed for the presence of equipment, other storage tanks, and materials that may contain or be contaminated by regulated chemicals. These include, but may not be comprehensive of:

- Above ground storage tanks
- Oil-containing equipment (hydraulic equipment, blowers, fans, motors, elevators, compressors, etc.)
- Fire brick
- Contaminated building materials (concrete, block walls, wood, plaster, etc.) with staining, odor or other signs of a hazardous chemical release

SURVEY RESULTS

The following subsections include a discussion of the RMS results. Photographs of the residence are located in the *Attachment A, Photo Log*. The results of this report are valid as of the report date, subject to the limitations presented in *Attachment B, Limitations*.

ACM Survey Results

MSG identified twenty-one (21) homogenous materials that were suspect as asbestos containing during the ACM survey. Forty-eight (48) bulk samples were collected from these suspect homogeneous materials and were submitted to Apex Research, Inc. for laboratory analysis of Bulk Materials by Polarized Light Microscopy using USEPA Method 600/R-93/116. Apex is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) to analyzed bulk samples for asbestos content. Of the aforementioned suspect homogenous materials identified during this ACM survey, laboratory analysis found two (2) homogenous materials (samples 4-1 and 7-1) contained greater than 1% asbestos. The EPA defines ACM as materials containing greater than 1% asbestos.

A point-count quantification procedure (PCQM) allows for lower detection limits than calibrated visual estimation (CVES), which is the quantification method widely used in asbestos analysis via Polarized Light Microscopy (PLM). If the asbestos content is found to contain less than 10% asbestos as determined by a method other than point counting by PLM, it can only be treated as non-ACM if verified to contain less than 1% by the PCQM. If not point-counted, the sample must be assumed to be greater than 1% and thus considered and treated as ACM. It is MSG's experience that point counting samples with an estimated PLM asbestos content of more than 3% does not yield significantly different analytical results. A trace amount of asbestos was identified in samples AS 2-1 and AS 2-3 therefore the laboratory conducted point count analyses on these samples and identified the samples did not contain greater than 1% asbestos.

Suspect ACM sample locations are depicted on the attached figure. See *Table 1, Asbestos Sampling Results* for a listing of homogeneous materials identified by MSG during this survey. A copy of the analytical reports including chains of custody is attached in *Attachment C, Analytical Reports and Chains of Custody*.

Universal Wastes, Hazardous Materials, and Other Regulated Materials Survey Results

Universal wastes, hazardous materials, and/or other regulated materials wastes were identified within the Site building. Quantities identified are provided in *Table 2, Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory*.

CONCLUSIONS AND RECOMMENDATIONS

Asbestos Containing Materials

Of the twenty-one (21) homogenous materials collected as part of the ACM survey, two (2) homogenous materials contained asbestos greater than 1% (samples 4-1 and 7-1) with these two (2) homogenous materials being classified as RACM. All materials containing ACM must be disposed of in a licensed landfill.

Prior to demolition, a notification of intent to demolish shall be made to the Michigan Department of Environmental Quality Air Quality Division (MDEQ-AQD) and Licensing and Regulatory Affairs (LARA), Asbestos Program. Notification, according to the procedure described by the NESHAP, Title 40 of the Code of Federal Regulations, Part 61, Subpart M, Notification, for renovation and demolition projects should be followed. A copy of this notification form is provided in *Attachment D, Notification of Intent to Renovate/Demolish*. This form shall be completed by the contractor who completes the demolition.

If additional suspect ACMs are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, shall be surveyed, tested, and abated if warranted. If suspect ACMs are determined to be RACM that would be disturbed during demolition activities, the RACM must be properly removed by a licensed asbestos abatement contractor.

Category I and Category II Non-Friable ACM may often be left in place during demolition activities if the ACM is not subjected to sanding, grinding, cutting, or abrading or has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material during the course of demolition.

Universal Wastes, Hazardous Materials, and Other Regulated Materials

The universal waste, hazardous materials, and other regulated materials (see Table 2) must be properly characterized (as necessary) and properly removed from the Site building for recycling and/or disposed of in accordance with Parts 111, 115, or 147 of Michigan Public Act 451 of 1994, as amended. If additional universal wastes, hazardous materials, and other regulated materials are discovered during demolition activities in areas that were determined during this survey to be structurally unsound and unsafe, inaccessible, concealed and/or in buried areas, these materials shall be characterized (as necessary) and properly removed in accordance with the above-mentioned regulations.

If you have any questions or concerns regarding the above information please contact us at 517-316-9232.

Sincerely,



Kory McKay
Environmental Scientist
Accreditation Number A47903



Charlie Bush
Senior Project Manager
Accreditation Number A34293

Attachments

FIGURE





TECHNICAL SKILL.
CREATIVE SPIRIT.

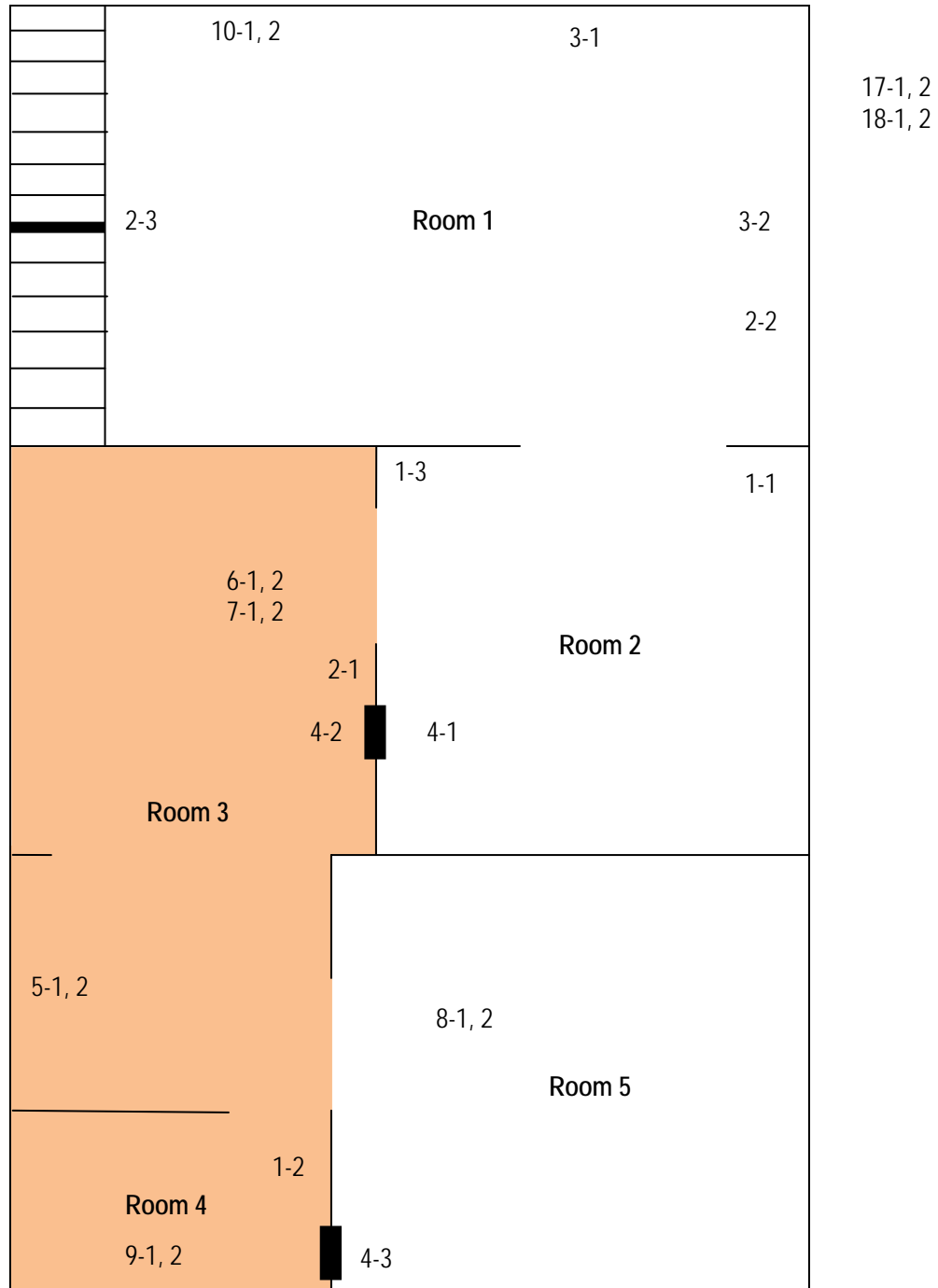
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 804 N Pennsylvania

Date: December 22, 2017

Drawing not to scale

1st Floor



 = Flooring Sandwich (240 SF)

#-# = Asbestos Sample

 = Vent with wrap



TECHNICAL SKILL.
CREATIVE SPIRIT.

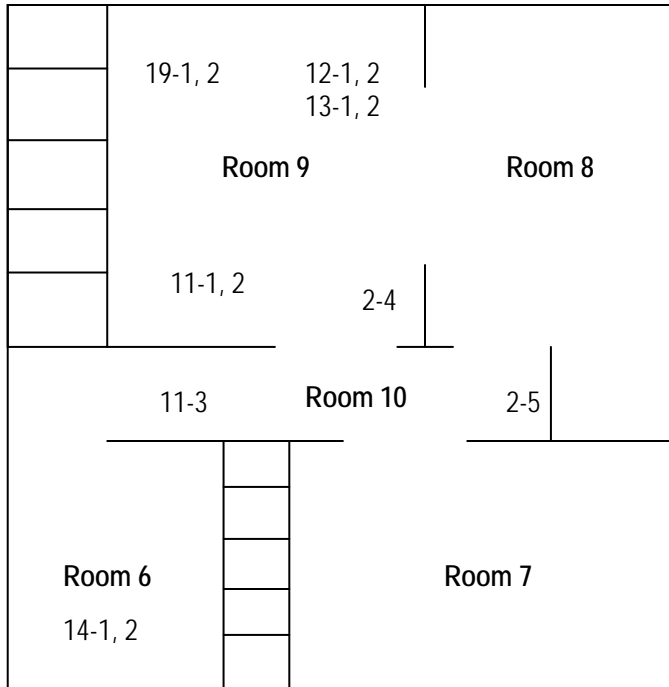
721 N. Capitol Avenue, Suite 2, Lansing, Michigan 48906 Tel: 517.316.9232 Fax: 517.316.9233 www.MannikSmithGroup.com

Address: 804 N Pennsylvania

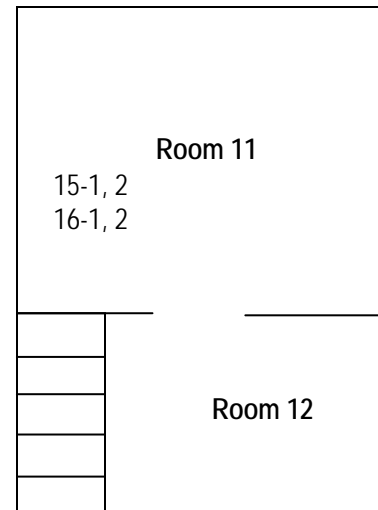
Date: December 22, 2017

Drawing not to scale

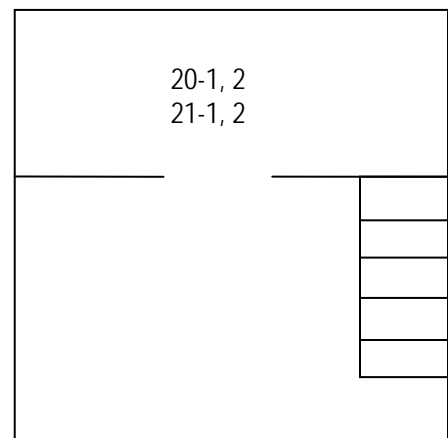
2nd Floor



3rd Floor



Basement



#-# = Asbestos Sample

TABLES



TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		804 N Pennsylvania Ave								
Survey Date		December 20, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-2	1	AS 1-1	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-4	1	AS 1-2	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-2	1	AS 1-3	HA-1	Drywall	Non-Friable	Good	Miscellaneous	No	No	1200 SF
RM-3	1	AS 2-1	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-1	1	AS 2-2	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-1	1	AS 2-3	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-9	2	AS 2-4	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-10	2	AS 2-5	HA-2	Plaster	Non-Friable	Good	Miscellaneous	No	No	2400 SF
RM-1	1	AS 3-1	HA-3	Window caulk	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-1	1	AS 3-2	HA-3	Window caulk	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-2	1	AS 4-1	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	30% Chrysotile	220 SF
RM-3	1	AS 4-2	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	220 SF
RM-5	1	AS 4-3	HA-4	Vent wrap	Friable	Good	Miscellaneous	Yes	NA	220 SF
RM-3	1	AS 5-1	HA-5	Window glaze	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-3	1	AS 5-2	HA-5	Window glaze	Non-Friable	Good	Miscellaneous	No	No	320 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		804 N Pennsylvania Ave								
Survey Date		December 20, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-3	1	AS 6-1	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-3	1	AS 6-2	HA-6	White tile	Non-Friable	Good	Miscellaneous	No	No	320 SF
RM-3	1	AS 7-1	HA-7	Flooring sandwich	Non-Friable	Good	Miscellaneous	Yes	2% Chrysotile	240 SF
RM-3	1	AS 7-2	HA-7	Flooring sandwich	Non-Friable	Good	Miscellaneous	Yes	NA	240 SF
RM-5	1	AS 8-1	HA-8	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-5	1	AS 8-2	HA-8	Tan linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-4	1	AS 9-1	HA-9	Blue tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-4	1	AS 9-2	HA-9	Blue tile	Non-Friable	Good	Miscellaneous	No	No	50 SF
RM-1	1	AS 10-1	HA-10	Turquoise tile	Non-Friable	Good	Miscellaneous	No	No	252 SF
RM-1	1	AS 10-2	HA-10	Turquoise tile	Non-Friable	Good	Miscellaneous	No	No	252 SF
RM-9	2	AS 11-1	HA-11	Textured ceiling	Friable	Good	Miscellaneous	No	No	475 SF
RM-9	2	AS 11-2	HA-11	Textured ceiling	Friable	Good	Miscellaneous	No	No	475 SF
RM-10	2	AS 11-3	HA-11	Textured ceiling	Friable	Good	Miscellaneous	No	No	475 SF
RM-9	2	AS 12-1	HA-12	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF
RM-9	2	AS 12-2	HA-12	Multi colored Linoleum	Non-Friable	Good	Miscellaneous	No	No	150 SF

TABLE 1
Asbestos Sampling Results

Client		Ingham County Land Bank Authority								
Survey Location		804 N Pennsylvania Ave								
Survey Date		December 20, 2017								
Functional Area	Floor	Sample ID	HM #	Homogeneous Material Group	Friable/Non Friable	Condition	EPA Classification	RACM	Asbestos	Quantity
RM-9	2	AS 13-1	HA-13	White linoleum	Non-Friable	Good	Miscellaneous	No	No	140 SF
RM-9	2	AS 13-2	HA-13	White linoleum	Non-Friable	Good	Miscellaneous	No	No	140 SF
RM-6	2	AS 14-1	HA-14	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	70 SF
RM-6	2	AS 14-2	HA-14	Yellow Linoleum	Non-Friable	Good	Miscellaneous	No	No	70 SF
RM-11	3	AS 15-1	HA-15	Green tile	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-11	3	AS 15-2	HA-15	Green tile	Non-Friable	Good	Miscellaneous	No	No	200 SF
RM-11	3	AS 16-1	HA-16	Ceiling glue dots	Non-Friable	Good	Miscellaneous	No	No	100 SF
RM-11	3	AS 16-2	HA-16	Ceiling glue dots	Non-Friable	Good	Miscellaneous	No	No	100 SF
Roof	E	AS 17-1	HA-17	Shingles	Non-Friable	Good	Miscellaneous	No	No	400 SF
Roof	E	AS 17-2	HA-17	Shingles	Non-Friable	Good	Miscellaneous	No	No	400 SF
Exterior	E	AS 18-1	HA-18	Siding	Non-Friable	Good	Miscellaneous	No	No	2900 SF
Exterior	E	AS 18-2	HA-18	Siding	Non-Friable	Good	Miscellaneous	No	No	2900 SF
RM-9	2	AS 19-1	HA-19	Gray tile	Non-Friable	Good	Miscellaneous	No	No	220 SF
RM-9	2	AS 19-2	HA-19	Gray tile	Non-Friable	Good	Miscellaneous	No	No	220 SF
Basement	B	AS 20-1	HA-20	Basement cement basement	Non-Friable	Good	Miscellaneous	No	No	400 SF

TABLE 1
Asbestos Sampling Results

[illegible]

Table 2
 Universal Waste, Hazardous Materials, and Other Regulated Materials Inventory
 804 N Pennsylvania Ave
 Lansing, Ingham County, Michigan

Universal Waste Inventory		
Location	Type of Waste	Approximate Quantity
RM-1	Thermostat	1
Hazardous Materials Inventory		
Location	Type of Waste	Approximate Quantity
RM-1	Spray paint can	1
Other Regulated Materials Inventory		
Location	Type of Waste	Approximate Quantity
-	-	-

ATTACHMENT A

PHOTO LOG



Property Photos



804 N Pennsylvania Ave, Front of House



Back of House

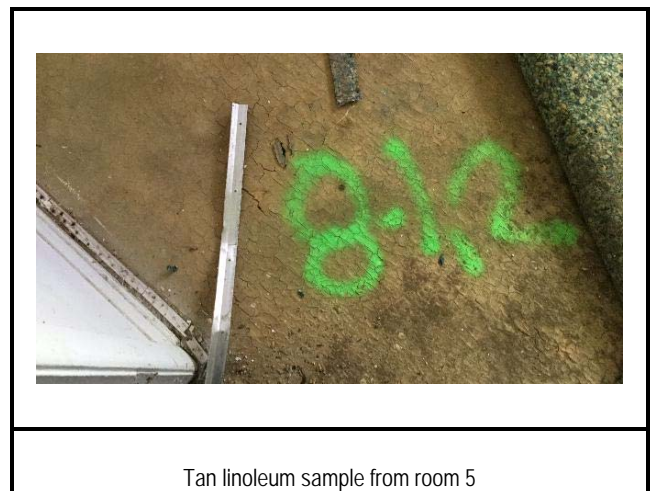
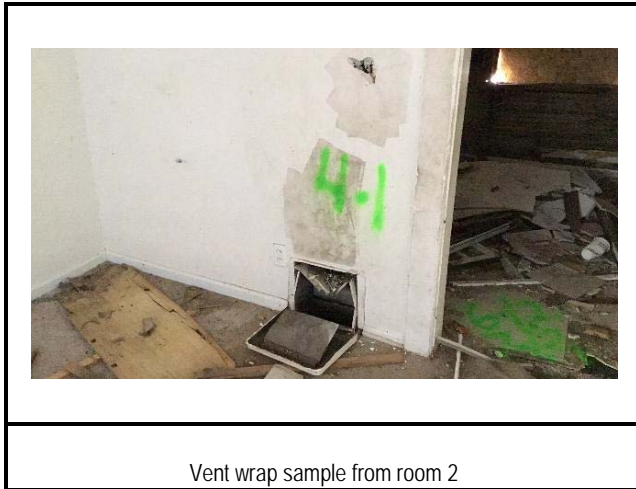
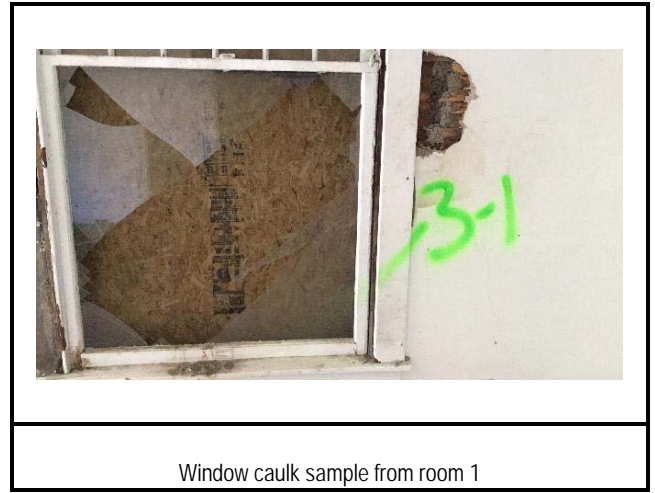
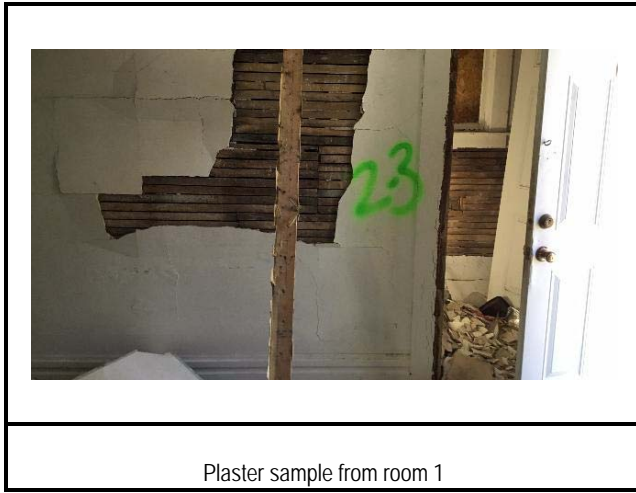


Side of House

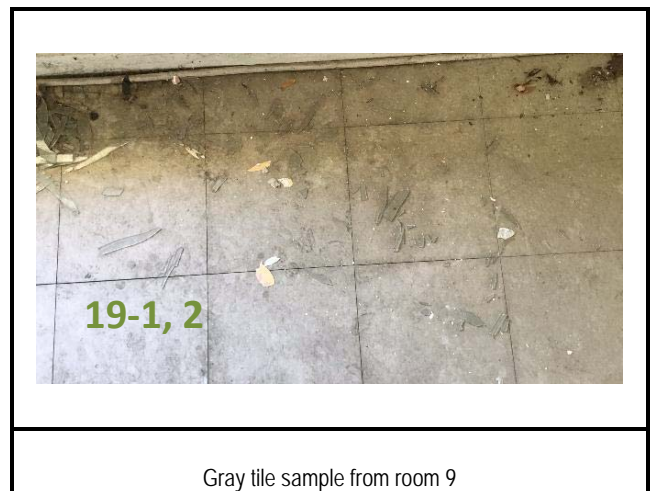
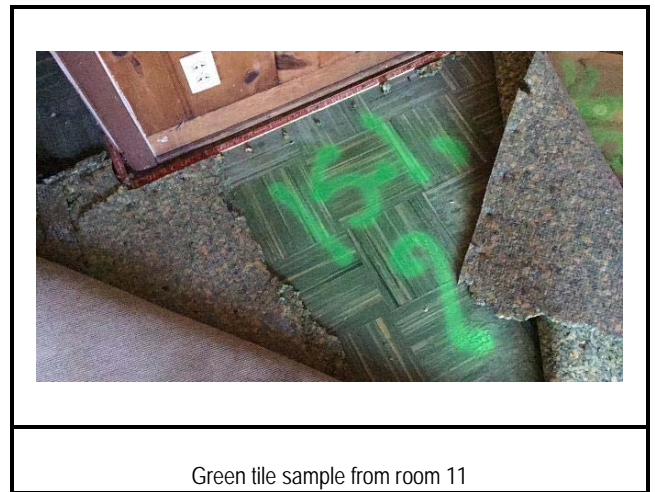
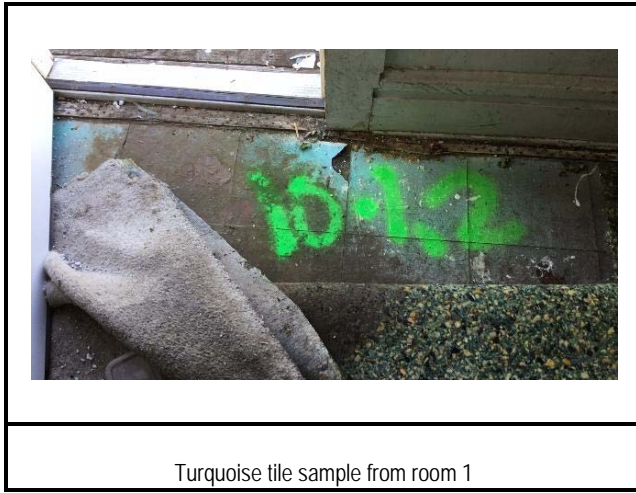


Side of House

Sample Photos



Sample Photos



ATTACHMENT B

LIMITATIONS





REGULATED MATERIALS SURVEY LIMITATIONS

The Mannik & Smith Group, Inc. (MSG) performed its services associated with this Regulated Materials Survey (RMS) in general accordance with guidelines set forth in the Environmental Protection Agency (EPA) 40 Code of Federal Regulations (CFR) 763, Occupational Safety and Health Administration (OHSA) 29 CFR 1926.62, and in conformance with the care and skill ordinarily used by other reputable environmental consulting firms practicing under similar conditions, at the same time, and in the same or similar locality. This RMS and related documentation are site-specific, which means they pertain to the conditions of the site surveyed.

Unless otherwise noted, MSG's RMS is limited to accessible areas. Areas determined to be not structurally sound, safely reached, limited by excessive accumulated obstructions, require specialized equipment to access, in operable windows, etc., are not included in this survey. There may be areas where regulated materials, such as suspected asbestos-containing materials (SACM) and lead containing paint cannot be viewed and/or tested. MSG shall not be responsible for identifying all SACM, lead containing paint, or other hazardous materials located in inaccessible locations, including by not limited to, above a plaster ceiling, behind a wall, embedded in concrete, buried, confined spaces, unsafe areas, or otherwise not readily identifiable.

Destructive sampling will only be conducted when permission has been granted by the owner. Destructive survey locations are limited to areas where hidden SACM, lead containing paint, or other hazardous materials is reasonably thought to be present and sampling can be conducted in a safe manner. If regulated materials are found during the course of demolition and/or renovation activities that are not listed in this report, the material should be assumed as asbestos-containing, lead containing, or hazardous until it can be sampled and analyzed at an accredited laboratory and safe work practices should always be used if those areas are to be disturbed.

MSG has prepared a logical assessment program to reduce the client's risk of discovering unknown regulated materials and/or hazardous substances. The presence of subsurface regulated materials and/or hazardous substances is based solely on surface observations and/or information provided by others. Descriptions of subsurface conditions provided in this report are not warranted to be complete or accurate. This risk may be reduced by more extensive exploration on the site, but even with additional exploration, it is not possible to completely eliminate the risk of discovering regulated materials and/or hazardous conditions. It cannot and should not be assumed that samples collected and conditions observed at the time of the RMS are representative of an area that has not been sampled and/or tested.

In preparing this report, MSG may have relied on information obtained from or provided by others. MSG makes no representation or warranty regarding the accuracy or completeness of this information gathered through outside sources or subcontracted services. No warranty, guarantee, or certification of any kind, expressed or implied, at common law or created by statute, is extended, made, or intended by rendering these environmental consulting services or by furnishing this written report. Environmental conditions and regulations are subject to constant change and reinterpretation. One should not assume that any on-site conditions and/or regulatory statutes or rules will remain constant after MSG has completed the scope of work for this project. Furthermore, because the facts stated in this report are subject to professional interpretation, differing conclusions could be reached by other environmental professionals.

The report is intended to offer support to a building owner, construction manager, general contractor, abatement contractor, architect, and/or other parties authorized by the owner in generally locating asbestos-containing materials (ACM), lead containing paint, universal and hazardous wastes, and/or other regulated materials. This report does not have the required components to serve as an Asbestos Project Design document, Asbestos and/or Lead Containing Paint Abatement Work Plan, and/or a Health and Safety Plan. Therefore, this report should not be utilized as a project specification document. The results, findings, conclusions, and recommendations expressed in

this report are based only on conditions that were noted during this survey. This report does not warrant against future operations or conditions, nor does it warrant against operations or conditions present of a type or at a location not investigated. Quantities have been conservatively estimated and sampling locations have been described representatively; however, current site conditions should be field-verified by contractors bidding on and/or prior to abatement work.

ATTACHMENT C

ANALYTICAL REPORTS AND CHAINS OF CUSTODY





Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 804 N. Pennsylvania Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73857
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 01 Cust. #: AS 3-1 Material: Window Caulk Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 02 Cust. #: AS 3-2 Material: Window Caulk Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 03 Cust. #: AS 2-2 Material: Plaster - Finish Coat Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



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Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 03a Cust. #: AS 2-2 Material: Base Coat Location: Room 1 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO Chrysotile - 0.25% POINT COUNT RESULT	Cellulose - 2% Other - 97.75%
Lab ID #: 73857 - 04 Cust. #: AS 2-3 Material: Plaster - Finish Coat Location: Room 1 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 04a Cust. #: AS 2-3 Material: Base Coat Location: Room 1 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 05 Cust. #: AS 10-1 Material: Turquoise Tile Location: Room 1 Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 05a Cust. #: AS 10-1 Material: Mastic Location: Room 1 Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 06 Cust. #: AS 10-2 Material: Turquoise Tile Location: Room 1 Appearance: blue,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 06a Cust. #: AS 10-2 Material: Mastic Location: Room 1 Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 07 Cust. #: AS 1-1 Material: Drywall Location: Room 2 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73857 - 07a Cust. #: AS 1-1 Material: Joint Compound Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Okemos, MI, 48864

ARI Report # 17-73857
Date Collected: 12/20/17
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Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 08 Cust. #: AS 1-3 Material: Drywall Location: Room 2 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73857 - 08a Cust. #: AS 1-3 Material: Joint Compound Location: Room 2 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 09 Cust. #: AS 4-1 Material: Vent Wrap Location: Room 2 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%

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

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Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 10 Cust. #: AS 6-1 Material: White Tile Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 10a Cust. #: AS 6-1 Material: Mastic Location: Room 3 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 10b Cust. #: AS 6-1 Material: Leveling Location: Room 3 Appearance: grey, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 11 Cust. #: AS 6-2 Material: White Tile Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 11a Cust. #: AS 6-2 Material: Mastic Location: Room 3 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 11b Cust. #: AS 6-2 Material: Leveling Location: Room 3 Appearance: grey, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 12 Cust. #: AS 7-1 Material: Linoleum Location: Room 3 Appearance: black, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 2% Other - 88%
Lab ID #: 73857 - 12a Cust. #: AS 7-1 Material: Linoleum Location: Room 3 Appearance: beige, fibrous, nonhomogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 73857 - 12b Cust. #: AS 7-1 Material: Floor Tile Location: Room 3 Appearance: beige, fibrous, homogenous Layer: 3 of 4	Asbestos Present: YES Chrysotile - 2%	Other - 98%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 12c Cust. #: AS 7-1 Material: Mastic Location: Room 3 Appearance: black, nonfibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 13 Cust. #: AS 7-2 Material: Linoleum Location: Room 3 Appearance: black, fibrous, nonhomogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 2% Other - 88%
Lab ID #: 73857 - 13a Cust. #: AS 7-2 Material: Linoleum Location: Room 3 Appearance: beige, fibrous, nonhomogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%

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 may not be used by the customer to claim product endorsement by NVLAP 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.



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Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 13b Cust. #: AS 7-2 Material: Floor Tile Location: Room 3 Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 73857 - 13c Cust. #: AS 7-2 Material: Mastic Location: Room 3 Appearance: black,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 14 Cust. #: AS 2-1 Material: Texture Location: Room 3 Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 14a Cust. #: AS 2-1 Material: Plaster - Finish Coat Location: Room 3 Appearance: white, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 14b Cust. #: AS 2-1 Material: Base Coat Location: Room 3 Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO Chrysotile - Trace POINT COUNT RESULT	Cellulose - 2% Other - 98%
Lab ID #: 73857 - 15 Cust. #: AS 4-2 Material: Vent Wrap Location: Room 3 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 804 N. Pennsylvania Ave.
Project # I1440002

Report To:

Mr. Charlie Bush
Mannik & Smith Group
2193 Association Drive, Suite 200
Okemos, MI, 48864

ARI Report # 17-73857
Date Collected: 12/20/17
Date Received: 12/21/17
Date Analyzed: 12/27/17
Date Reported: 12/28/17

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 16 Cust. #: AS 5-1 Material: Window Glaze Location: Room 3 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73857 - 17 Cust. #: AS 5-2 Material: Window Glaze Location: Room 3 Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 73857 - 18 Cust. #: AS 1-2 Material: Drywall Location: Room 4 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 18a Cust. #: AS 1-2 Material: Joint Compound Location: Room 4 Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 19 Cust. #: AS 9-1 Material: Blue Tile Location: Room 4 Appearance: grey, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 19a Cust. #: AS 9-1 Material: Mastic Location: Room 4 Appearance: clear, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 19b Cust. #: AS 9-1 Material: Floor Tile Location: Room 4 Appearance: grey,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 19c Cust. #: AS 9-1 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 20 Cust. #: AS 9-2 Material: Blue Tile Location: Room 4 Appearance: grey,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 20a Cust. #: AS 9-2 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 20b Cust. #: AS 9-2 Material: Floor Tile Location: Room 4 Appearance: white,nonfibrous,homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 20c Cust. #: AS 9-2 Material: Mastic Location: Room 4 Appearance: clear,nonfibrous,homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 21 Cust. #: AS 8-1 Material: Tan Linoleum Location: Room 5 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73857 - 22 Cust. #: AS 8-2 Material: Tan Linoleum Location: Room 5 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 73857 - 23 Cust. #: AS 4-3 Material: Vent Wrap Location: Room 5 Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 24 Cust. #: AS 11-3 Material: Textured Ceiling Location: Room 10 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 25 Cust. #: AS 11-1 Material: Textured Ceiling Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 26 Cust. #: AS 11-2 Material: Textured Ceiling Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 27 Cust. #: AS 12-1 Material: Multi-Colored Linoleum Location: Room 9 Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73857 - 28 Cust. #: AS 12-2 Material: Multi-Colored Linoleum Location: Room 9 Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73857 - 29 Cust. #: AS 13-1 Material: White Linoleum Location: Room 9 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 30 Cust. #: AS 13-2 Material: White Linoleum Location: Room 9 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73857 - 31 Cust. #: AS 19-1 Material: Gray Tile Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 31a Cust. #: AS 19-1 Material: Mastic Location: Room 9 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 32 Cust. #: AS 19-2 Material: Gray Tile Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 32a Cust. #: AS 19-2 Material: Mastic Location: Room 9 Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 33 Cust. #: AS 14-1 Material: Yellow Linoleum Location: Room 6 Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 5% Other - 85%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 34 Cust. #: AS 14-2 Material: Top Glue Location: Room 6 Appearance: yellow, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 34a Cust. #: AS 14-2 Material: Yellow Linoleum Location: Room 6 Appearance: white, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Fiberglass - 2% Other - 83%
Lab ID #: 73857 - 35 Cust. #: AS 15-1 Material: Green Tile Location: Room 11 Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 36 Cust. #: AS 15-2 Material: Green Tile Location: Room 11 Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 73857 - 37 Cust. #: AS 16-1 Material: Ceiling Glue Dots Location: Room 11 Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 38 Cust. #: AS 16-2 Material: Ceiling Glue Dots Location: Room 11 Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 39 Cust. #: AS 2-4 Material: Plaster - Finish Coat Location: Room 9 Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 39a Cust. #: AS 2-4 Material: Base Coat Location: Room 9 Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 73857 - 40 Cust. #: AS 2-5 Material: Base Coat Location: Room 10 Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 41 Cust. #: AS 17-1 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73857 - 42 Cust. #: AS 17-2 Material: Shingles Location: Roof Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 73857 - 43 Cust. #: AS 18-1 Material: Siding Location: Exterior Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 44 Cust. #: AS 18-2 Material: Siding Location: Exterior Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 15% Other - 85%
Lab ID #: 73857 - 45 Cust. #: AS 20-1 Material: Basement Cement Location: Basement Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 46 Cust. #: AS 20-2 Material: Basement Cement Location: Basement Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 73857 - 47 Cust. #: AS 21-1 Material: Stack Cement Location: Basement Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 73857 - 48 Cust. #: AS 21-2 Material: Stack Cement Location: Basement Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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Phone: **(517) 316-9232** Fax: **(517) 316-9233**

Date of Survey: **12/20/2017 5:00**
Project: **804 N PENNSYLVANIA AVE**
Project #: **11440002**
Contact Person: **Charlie Bush**
Email: **cbush@manniksmithgroup.com**

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush _____ 24 Hour _____
48 Hour _____ 72 Hour 72 Hour
Other: _____ TTP yes / no
(Test Till Positive)

Samples received after 3pm
logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Asbestos Bulk X Wipe _____ Point Count _____ PCM _____
Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
1	AS 3-1	RM-1 - Window caulk	Bag	HA-3	
2	AS 3-2	RM-1 - Window caulk	Bag	HA-3	
3	AS 2-2	RM-1 - Plaster	Bag	HA-2	
4	AS 2-3	RM-1 - Plaster	Bag	HA-2	
5	AS 10-1	RM-1 - Turquoise tile	Bag	HA-10	
6	AS 10-2	RM-1 - Turquoise tile	Bag	HA-10	
7	AS 1-1	RM-2 - Drywall	Bag	HA-1	
8	AS 1-3	RM-2 - Drywall	Bag	HA-1	
9	AS 4-1	RM-2 - Vent wrap	Bag	HA-4	
10	AS 6-1	RM-3 - White tile	Bag	HA-6	
11	AS 6-2	RM-3 - White tile	Bag	HA-6	
12	AS 7-1	RM-3 - Flooring sandwich	Bag	HA-7	

Relinquished By: [Signature]Received By: [Signature]

Relinquished By: _____ Received By: _____

Date: 12/21/17Time/Date: 12/21/17 DEC 21 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73857

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/20/2017 5:00
 Project: 804 N PENNSYLVANIA AVE
 Project #: 11440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) ***Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
13	AS 7-2	RM-3 - Flooring sandwich	Bag	HA-7	
14	AS 2-1	RM-3 - Plaster	Bag	HA-2	
15	AS 4-2	RM-3 - Vent wrap	Bag	HA-4	
16	AS 5-1	RM-3 - Window glaze	Bag	HA-5	
17	AS 5-2	RM-3 - Window glaze	Bag	HA-5	
18	AS 1-2	RM-4 - Drywall	Bag	HA-1	
19	AS 9-1	RM-4 - Blue tile	Bag	HA-9	
20	AS 9-2	RM-4 - Blue tile	Bag	HA-9	
21	AS 8-1	RM-5 - Tan linoleum	Bag	HA-8	
22	AS 8-2	RM-5 - Tan linoleum	Bag	HA-8	
23	AS 4-3	RM-5 - Vent wrap	Bag	HA-4	
24	AS 11-3	RM-10 - Textured ceiling	Bag	HA-11	

Relinquished By: _____

Received By: J. Heer

Relinquished By: _____ Received By: _____

Date: 12/21/17

Time/Date: 12/21/17 DEC 21 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73857

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11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Lab Use Only

Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/20/2017 5:00
 Project: 804 N PENNSYLVANIA AVE
 Project #: 11440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
25	AS 11-1	RM-9 - Textured ceiling	Bag	HA-11	
26	AS 11-2	RM-9 - Textured ceiling	Bag	HA-11	
27	AS 12-1	RM-9 - Multi colored Linoleum	Bag	HA-12	
28	AS 12-2	RM-9 - Multi colored Linoleum	Bag	HA-12	
29	AS 13-1	RM-9 - White linoleum	Bag	HA-13	
30	AS 13-2	RM-9 - White linoleum	Bag	HA-13	
31	AS 19-1	RM-9 - Gray tile	Bag	HA-19	
32	AS 19-2	RM-9 - Gray tile	Bag	HA-19	
33	AS 14-1	RM-6 - Yellow Linoleum	Bag	HA-14	
34	AS 14-2	RM-6 - Yellow Linoleum	Bag	HA-14	
35	AS 15-1	RM-11 - Green tile	Bag	HA-15	
36	AS 15-2	RM-11 - Green tile	Bag	HA-15	

Relinquished By: _____

Received By: _____

Relinquished By: _____ Received By: _____

Date: 12/21/17

Time/Date: 12/21/17 DEC 21 2017

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX RESEARCH

73857

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189. Phone: (734) 449 - 9990, Fax (734) 449 - 9991 www.ApexMI.com



Customer Name: **MANNIK & SMITH GROUP**
 Address: 2193 Association Drive, Suite 200
 City, St., Zip: Okemos, MI, 48864
 Phone: (517) 316-9232 Fax: (517) 316-9233

Date of Survey: 12/20/2017 5:00
 Project: 804 N PENNSYLVANIA AVE
 Project #: I1440002
 Contact Person: Charlie Bush
 Email: cbush@manniksmithgroup.com

Lab Use Only

Log-In: _____

Report: _____

Fax: _____

Verbal: _____

Email: _____

Turn Around Time: (circle one) Terms and conditions on the other side.

Rush 24 Hour
 48 Hour 72 Hour
 Other: TTP yes / no
 (Test Till Positive)

Samples received after 3pm
 logged in next morning

Circle analyses required, indicate type and quantity

Asbestos: Bulk ☒ Wipe _____ Point Count _____ PCM _____
 Lead / Cad / Chrome: Air _____ Paint _____ Wipe (ASTM) _____ Bulk _____
 Mold: Bulk _____ Air _____ BioSIS _____ Tape _____
 TEM: Bulk _____ NIOSH _____ EPA Level II _____ Other _____

Lab ID	Customer ID #	Material/Location	Volume	Area	Results
37	AS 16-1	RM-11 - Ceiling glue dots	Bag	HA-16	
38	AS 16-2	RM-11 - Ceiling glue dots	Bag	HA-16	
39	AS 2-4	RM-9 - Plaster	Bag	HA-2	
40	AS 2-5	RM-10 - Plaster	Bag	HA-2	
41	AS 17-1	Roof - Shingles	Bag	HA-17	
42	AS 17-2	Roof - Shingles	Bag	HA-17	
43	AS 18-1	Exterior - Siding	Bag	HA-18	
44	AS 18-2	Exterior - Siding	Bag	HA-18	
45	AS 20-1	Basement - Basement cement basement	Bag	HA-20	
46	AS 20-2	Basement - Basement cement basement	Bag	HA-20	
47	AS 21-1	Basement - Stack Cement	Bag	HA-21	
48	AS 21-2	Basement - Stack Cement	Bag	HA-21	

Relinquished By: _____

Received By: _____

Relinquished By: _____ Received By: _____

Date: 12/21/17

Time/Date: 12/21/17

Date: _____ Time/Date: _____

Revision R4 Date: May/2017

APEX

ATTACHMENT D

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH



MICHIGAN DEPARTMENT OF ENVIRONMENTAL QUALITY
(MDEQ) AIR QUALITY DIVISION
NESHAP, 40 CFR Part 61, Subpart M



MICHIGAN DEPARTMENT OF LICENSING AND
REGULATORY AFFAIRS (LARA), ASBESTOS PROGRAM,
P.A. 135 OF 1986, AS AMENDED, Section 220 (1-4) or (8)

DEQ/LARA USE ONLY

Postmark Date ____/____/____ Rec'd Date ____/____/____
Emergency Date ____/____/____ Valid No. ____
☐ OK ☐ Send Def Ltr. Date of Def Ltr. ____/____/____
FOLLOW UP ____/____/____ Spoke w/ ____
Comments: _____

Notification No. _____ Trans No. _____

Calculate LARA Asbestos Project Fee: (1% Project Fee)
Total Project Cost: _____ x 0.01 = _____
Type of Contractor: _____ License No.: _____
Licensing Authority: _____

1. NOTIFICATION:

Date of Notification: _____
Date of Revision(s): _____
Notification Type: ☐ Original ☐ Revised ☐ Canceled ☐ Annual

Mark appropriate boxes: (both DEQ and LARA may apply):

DEQ (NESHAP) [260 ln. ft./160 sq. ft. or more is threshold]

- ☐ Planned Renovation – 10 working days notice
☐ Emergency Renovation
☐ Scheduled Demolition – 10 working days notice
☐ Intentional Burn – 10 working days notice
☐ Ordered Demolition

LARA (MIOSHA) [Will not accept annual notifications]

- ☐ Demo, Reno, Encap. (>10 ln. ft./15 sq. ft.) 10 calendar days notice
☐ Emergency Renovation/Encapsulation

2. PROJECT SCHEDULE:

	START DATE	END DATE
* Renovation	_____	_____
+Asb. Removal	_____	_____
+Demolition:	_____	_____
Encapsulation:	_____	_____

Work Schedule: Please indicate the anticipated days of the week and work hours for the purpose of scheduling a compliance inspection.

	Days of the Week	Work Hours
Asb. Removal:	_____	_____
Demolition:	_____	_____
Encapsulation:	_____	_____

* Includes setup, build enclosure, asbestos removal, demobilizing, etc.
+Include only those dates you are conducting asbestos removal/demo.

☐ Check here if this is a multi-phased project, attach a schedule showing the start/end date of each phase.

3. ABATEMENT CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

4. DEMOLITION CONTRACTOR:

Internal Project #: _____

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

5. FACILITY OWNER: ("Facility" includes Bridges)

Name: _____
Mailing Address: _____
City/State/Zip: _____
E-mail: _____
Contact: _____ Phone: _____

6. FACILITY DESCRIPTION:

Facility Name: _____
Location Address/Description: _____
_____ If Apt. # of units: _____
City/Twp. _____ State: _____ Zip Code: _____
County: _____ Nearest Crossroad: _____
Size: (sq. ft.) _____ No. of Floors: _____ Floor No.: _____
Age: _____ Present Use: _____ Prior Use: _____
Specific Location(s) in Facility: _____

7. DISPOSAL SITE:

Name: _____
Location Address: _____
City/State/Zip: _____

8. WASTE TRANSPORTER 1:

Name: _____
Address: _____
City/State/Zip: _____
Phone: _____

WASTE TRANSPORTER 2:

9. ORDERED DEMOLITIONS: (See NESHAP regulations for definition of "Ordered Demolition.") A copy of the official Order must accompany this notification.

Gov't Agency Ordering Demo: _____
Name/Title of Person Signing Order: _____

Date of Order: _____ Date Ordered to Begin: _____

10. IS ASBESTOS PRESENT?

☐ Yes ☐ No

☐ To be removed prior to demolition

Estimate the amount of asbestos: Include RACM (Regulated Asbestos Containing Material) to be removed, encapsulated, etc. Also include the amount and type (floor tile, roofing, etc.) of non-friable Category I and/or Category II ACM that will not be removed prior to demolition. (**NOTE:** In a demolition, cementitious ACM cannot remain in a structure, as it is likely to become regulated in the demolition/handling process. It must be removed prior to demolition.)

RACM to be Removed	RACM to be Encapsulated	Non-friable ACM <u>not</u> removed prior to demo.		Units of Measure	
		Category I	Category II		
				<input type="checkbox"/> Ln. Ft.	<input type="checkbox"/> Ln. M.
				<input type="checkbox"/> Sq. Ft.	<input type="checkbox"/> Sq. M.
				<input type="checkbox"/> Cu. Ft.*	<input type="checkbox"/> Cu. M.*

*Volume (cubic ft./meters) should be used only if unable to measure by linear/square measure (example: asbestos has fallen off of surface).

(continued on reverse side)

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH (continued)

11. PROJECT DESCRIPTION: Complete **A) for Renovation** (asbestos removal/encapsulation) and/or **B) for Demolition**:

A) RENOVATION: Mark all surfaces/types of RACM to be removed:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tanks(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Mag Block ☐ Other (describe) _____

Encapsulation (for LARA): Mark surfaces/types to be encapsulated:

☐ Piping ☐ Fittings ☐ Boiler(s) ☐ Tank(s)
☐ Beam(s) ☐ Duct(s) ☐ Tunnel(s) ☐ Ceiling Tile(s)
☐ Other (describe) _____

Method of removal: Describe how the asbestos will be removed from the surface (example: glove bag, scrape with hand tools, cut in sections and carefully lower, etc.): _____

B) DEMOLITION: Describe the method of demolition of facility, bridge, etc., and indicate if complete or partial. If partial, describe which part of facility bridge, etc., will be demolished: _____

12. ENGINEERING CONTROLS: Describe work practices and engineering controls used to prevent visible emissions before, during, and after removal, and until proper disposal: _____

13. UNEXPECTED ASBESTOS: Describe the steps you intend to follow in the event that unexpected RACM is found or previously non-friable asbestos becomes friable (crumbled, pulverized, reduced to powder, etc.) and therefore regulated: _____

14. PROCEDURE(S) USED TO DETECT THE PRESENCE OF ASBESTOS: **A)** Indicate how you determined whether or not asbestos is in the facility. If analytical sampling was used, describe method of analysis. (The determination of the presence or absence of asbestos must be made prior to submitting a renovation/demolition notification.): _____

B) Name, address, and phone number of company performing asbestos survey: _____

C) Name, accreditation number of inspector, and date of inspection: _____

15. EMERGENCY RENOVATIONS: Date/time of emergency: _____ Describe the sudden, unexpected event: _____

Explain how the event caused unsafe conditions, and/or would cause equipment damage and/or an unreasonable financial burden: _____

16. I certify that an individual trained in the provisions of 40 CFR Part 61, Subpart M, will be on-site during the renovation and during demolition involving RACM above the threshold and/or during an ordered demolition. Evidence that this person has completed the required training will be available for inspection at the renovation or demolition site.

Signature of Owner or Abatement Contractor Date

Signature of Owner or Demolition Contractor Date

17. Signature Requirements for Projects with Negative Pressure Enclosures: (required by LARA)
Per Section 221(1)(2) of P.A. 135 of 1986, as amended, clearance air monitoring is required for any asbestos abatement project involving 10 linear feet/15 square feet or more of friable material which is performed within a negative pressure enclosure. I (the building owner or lessee) have been advised by the contractor of my responsibility under Act 135 to have clearance air monitoring performed on this project.

Signature of Building Owner or Lessee Date

Signature of Asbestos Abatement Contractor Representative Date

NOTE: **It is not mandatory that a signed copy be sent to LARA unless requested.** For affected projects, this section of the notification form must be completed, signed, and made part of your records before the project begins.

18. I certify that the above information is correct:

Printed Name of Owner/Operator Date

Signature of Owner/Operator Date

MAILING ADDRESSES/PHONE NUMBERS: (See Item 1 to determine which agency requirements/regulations are applicable to your project.)

For **Public Act 135 of 1986, as amended, Section 220 (1-4) or (8)**, mail to address below. For more info visit:
<http://www.michigan.gov/asbestos>

MIOSHA Asbestos Program
 LARA, CSHD
 P.O. Box 30671
 Lansing, MI 48909-8171

517.636.4551 (office), 517.322.1713 (fax)

For **NESHAP Demolitions/Renovations, 40 CFR, Part 61, Subpart M**, please use the e-submittal process. For more information visit <http://www.michigan.gov/air>, under Air Links click on Asbestos NESHAP Program.

NESHAP Asbestos Program
 DEQ, AQD
 P.O. Box 30260
 Lansing, MI 48909-7760

517.284.6777 (Office)