NESHAP RENOVATION / DEMOLITION INSPECTION OF ASBESTOS CONTAINING MATERIALS AND OTHER HAZARDOUS WASTE MATERIALS FOR THE PROPERTY KNOWN AS:

462 Washington Ave.
Muskegon, MI 49441

Prepared for:

City of Muskegon
933 Terrace Street, Room 202
Muskegon, MI 49440
231-724-6760

Prepared By:

ETC - Environmental Services
38900 Huron River Drive
Romulus, Michigan 48174
(734) 955-6600

January 15th, 2016

ETC Job #: 177228

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1. Introduction

The City of Muskegon contracted ETC - Environmental Services (ETC) to perform a renovation / demolition inspection of the building located at 462 Washington Ave,, Muskegon, MI 49441. This inspection was conducted on January 15th, 2016.

The EPA under the National Emission Standards for Hazardous Air Pollutants (NESHAPs) asbestos rule requires that prior to the start of a renovation and/or demolition project, the building must be inspected for asbestos containing materials (ACM's). The purpose of this inspection was to determine the presence and quantity of friable or potentially friable ACM's. Depending on the ACM found and the condition that it is in, removal of the material may be necessary before demolition work is to begin. Prior to the start of a demolition project, it is necessary that friable or potentially friable ACM's be removed.

ETC's certified inspector, Aaron Yankee and Stuart Yankee, conducted the ACBM inspection and identified materials suspected of containing asbestos. Aaron Yankee and Stuart Yankee's State of Michigan Asbestos Building Inspector's certification number is A-42490 and A-4115.

Wherever potential asbestos materials were found, data was collected and recorded regarding quantities and observed conditions of the suspect material. As required by the Occupational Safety and Health (OSHA) and the Environmental Protection Agency (EPA), three (3) samples of each type of material were taken in different locations to determine actual asbestos content.

Included along with this report are copies of the bulk sample results, a site map showing sample locations and a copy of the State of Michigan Notification of Intent to Renovate/Demolish. This information will be necessary for the asbestos abatement contractor selected to perform asbestos abatement activities in the house. ETC has included its information on the second page.

2. Information about Asbestos Inspections

a. Sampling Procedures

Representative bulk samples of suspect asbestos containing building materials were randomly collected within each building area. The materials sampled were broken down into distinct homogenous (similar) materials. Homogenous material determination was based on the following criteria:

- Similar physical characteristics (same color and texture, etc.)
- Application (sprayed-on, troweled-on, assembly into a system etc.)
- Material function (Thermal insulation, floor tile, wallboard system etc.)

It is important to note that some companies are only taking one sample of select non-friable materials. While this procedure is allowed under the NESHAPs regulation, the OSHA standard suggests a minimum of three samples of each

homogeneous material. This is a better approach due the potential errors in the analytical method used. ***To provide the most accurate information possible and be sure of our results, ETC chooses to take three samples of each sampled material.***

Additionally, some inspection companies have taken to assuming that materials contain asbestos rather than paying for the time and expenses of sampling them. This is not if the clients best interest. If materials are being assumed to contain asbestos, the client must treat them as asbestos containing even if they are not. This can lead to significantly increased costs for the building owner. ***In general, ETC only assumes materials to be asbestos when sampling them will ruin their integrity (i.e. fire doors) or when they are too dangerous to sample (i.e. live electrical lines).***

b. PLM Analysis Methodology

PLM samples were analyzed utilizing the Environmental Protection Agency's Test Methods: Methods for the determination of Asbestos in Bulk Building Materials (EPA 600/R-93/116, July 1993) and the McCrone Research Institute's The Asbestos Particle Atlas as method references. Additional treatment and tests may be required to accurately define composition (i.e. ashing, extraction, acetone treatment, and TEM).

Analysis was performed by using the bulk sample for visual observation and slide preparation(s) for microscopic examination and identification. The samples analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents. Using a stereoscope, the microscopist visually estimated relative amounts of each constituent by determining the volume of each constituent in proportion to the total volume of the sample.

According to NESHAP requirements any bulk sample that has asbestos content above 0% but below 10% should be point counted for final determination of percentage***. Please note, the contract DID NOT include point counting as defined in NESHAP.*** Should City of Muskegon wish to have this additional analysis conducted, ETC can send any samples in this range for point counting. However, this will require additional charges for analysis. Therefore, for any samples in the range above 0% but below 10% these results can only be considered estimates.

c. Interpretation of Inspection Results

A material is considered by OSHA, the EPA and the State of Michigan to be asbestos-containing if at least one sample collected from the homogenous material has asbestos fibers present in a concentration greater than one percent (>1 %).

A summary of the materials sampled, asbestos content, quantities and locations can be found on the Chart A in Section 4.0 – Summary and Conclusions.

d. Other Hazardous Materials

Additionally, a chart showing other hazardous materials (above the household quantity limitations) found at the site is included in Chart B – Section 4.0 – Summary and Conclusions. This lists non-asbestos materials that may be hazardous and require special handling and disposal requirements. Items that might be in this category include things like mercury switches, florescent lighting tubes, halogen lights, Freon in refrigeration units, pesticides, herbicides, paints, solvents, etc.

However, under the Resource Conservation and Recovery Act (RCRA) that addresses hazardous wastes, there is residential household quantity exclusion. Therefore, these materials will only be listed in this chart if they are present in quantities larger than what would be expected in a normal household. For instance, if the home was a farm and had a 55 gallon drum of pesticide present, this would be listed in Chart B. On the other hand if there were a few pesticide containers present as would be found in most homes these materials would not be listed.

3. Regulatory Requirements

There are two main regulations that affect renovation / demolition of residential homes and asbestos materials. The MIOSHA asbestos construction standard has requirements to protect the workers performing the renovation / demolition while the EPA – NESHAPs regulation has requirements that protect the general public and environment.

a. MIOSHA Construction Asbestos Regulations

The MIOSHA standard establishes a permissible exposure limit (PEL) average over an 8 hour day. This means that this is the maximum level of asbestos that workers and/or employees can be exposed to without respirator protection and protective clothing. Should air sampling during renovation or demolition activities be at or near the PEL the employer will have to:

- Notify Workers
- Worker Training
- Post Danger Signs
- Establish periodic air monitoring regulated areas, and decontamination facilities
- Provide respiratory protection and personnel protective clothing
- Employee Respiration Monitoring
- Record keeping

- Medical Surveillance (if employee will be exposed 30 days per year or more).

Until recently, only schools were federally mandated to conduct asbestos inspections of their buildings. However, with the passage of new MIOSHA regulations, all building owners (in this case City of Muskegon) is now required to notify all renovation / demolition workers of presence, location and quantity of all asbestos containing building materials within the building.

In most cases, it is more practical to have an asbestos contractor removal the ACM from the building prior to renovation / demolition than have the renovation / demolition contractor comply with all these requirements.

b. NESHAP Requirements

Prior to beginning a renovation or demolition project, NESHAP (enforced in Michigan by the Department of Environmental Quality – MDEQ) requires a full inspection of the following materials to determine their asbestos content:

- Friable Materials
- Category 1 – Non-friable Materials (Packings, gaskets, resilient floor covering, and asphalt roofing products)
- Category II – Non-friable Materials (All other non-friable materials)

In general, MDEQ requires any identified asbestos materials to be removed prior to renovation or demolition activities that would dislodge, disturb or otherwise affect these materials. There is an exception that if a licensed supervisor will state in writing that the material will not become friable during the renovation / demolition process it may be left in the building. However, be very careful with this exemption. MDEQ has stated that they believe that the only materials that MIGHT qualify for this exemption would be roofing felt and asphalt roofing materials. In order to use even this small exemption, the following would be required from the demolition contractor:

- A licensed asbestos abatement supervisor will sign that the material will not become friable
- The supervisor will have to be on-site during all renovation or demolition to insure that material stays intact.
- If MDEQ reviews that site and finds the material crumbled or disturbed both the contractor and building owner may be cited up to $27500 per day.
- The waste generated from the activity must be taken to an asbestos dump and they must be informed that the waste is mixed asbestos waste.

It is obviously very expensive and difficult to try and leave ACM within and area / building during renovation or demolition activities. Therefore, ETC recommends that all ACM be removed. This is why ETC does not assume materials to be ACM.

c. Notification Requirements

When performing abatement work within the State of Michigan, notification requirements depend on the quantity of materials and the friability of the material being removed.

If removing friable material above >160 square feet and / or 260 linear feet, the contractor must provide a ten working day notification to Michigan Department of Environmental Quality (MDEQ) and a ten calendar day notification to Michigan Department of Licensing and Regulatory Affairs (LARA) – Asbestos Program. If only non-friable materials are being removed, MDEQ does not want a notification.

If removing above >15 square feet but < 160 square feet, or > 10 linear feet but < 260 linear feet the contractor only needs to notify the LARA as stated above.

For removals of < 15 square feet or < 10 linear feet, not notification is required.

In conjunction with any notification to LARA, the contractor must pay a 1% fee for the project. This fee is to reflect 1% of the total abatement contract amount.

d. Abatement Requirements

Any company hired to remove identified ACM must insure that all asbestos companies, supervisors, workers are be licensed by the LARA. Additionally, these companies must insure that:

- The State of Michigan must be notified of the work in advance
- An asbestos supervisor must be on-site at all times when work is occurring
- All work must be completed within regulated work areas
- All work must be completed utilizing asbestos work practices defined in the MIOSHA regulations
- Have on-site personnel sampling conducted during the removal activities
- The contractor must request and pass (below 0.05 f/cc) a final asbestos clearance performed by a neutral third party prior to dismantling and leaving the site.
- Meet all other current regulations and standards.

In addition to these requirements, ETC strongly recommends that City of Muskegon insure that they receive the following documents from the contractor prior to making final payment:

- Written / signed documentation from the supervisor if any asbestos materials are to be left in place during renovation or demolition (Not recommended)
- Copy of the asbestos abatement notification
- Copy of the personnel monitoring during the work

- Copy of the final asbestos clearance report

By requiring these documents, City of Muskegon will substantially reduce their liability should something occur during the asbestos removal at this site.

4. Summary and Conclusions

ETC has endeavored to identify potential asbestos containing materials (ACM) that were accessible (without destructive testing) at the time of the inspection, other potential ACM may be buried or inaccessible at the time of the initial survey.

As has been evidenced on numerous other demolition and renovation projects, when tearing out or demolishing existing building surfaces, it is very common to encounter other building materials that were not accessible during the initial testing for ACM or lead / cadmium painted surfaces. It is therefore incumbent on City of Muskegon or their selected construction / renovation contractor to refer to the chart of sampled materials consistently during the renovation process. If materials are encountered during this process that are not clearly identifiable on the initial survey chart, ETC should be called to test and verify the asbestos / lead / cadmium content of these items.

ETC cannot be held responsible for materials encountered after the initial survey is completed unless we are contacted and given the opportunity to test and verify the material content. The costs associated with this additional testing are not included within the scope of this project and will incur additional charges for the additional sampling and analysis.

On the following charts, please find:

- Chart A - Is a summary of the materials that were sampled. Materials that test positive for asbestos have been bolded to make identification easier. ***If additional materials are encountered that were not previously identified, the contractor is responsible to contact ETC and have these materials tested. These additional sampling costs are not included in the scope of work or price for this survey.***

  Quantities that are listed are <u>estimates only</u>; in general, listed quantities represent <u>only</u> what was visible during testing. It is likely that where ACM has been identified throughout specific floors, similar materials and quantities exist on other like floors. It is the contractors'/client's responsibility to verify all amounts of asbestos identified during any bid process, or during future renovation and/or demolition activities. Materials that are identical in both relative location and physical description to already tested materials listed in this report should <u>always be assumed</u> to be ACM.

- Chart B – Is a list of other hazardous materials (above RCRA household quantity levels) that will require special handling and disposal by the contractor.

Chart A – Materials Sampled and Asbestos Content				
Material #	**Material Description**	**Asbestos**	**Quantity**	**Location (Refer to map in Appendix B)**
1	**Plaster, grey base. Skim coat, white.**	**Yes**	**1,400 SF**	**Rooms 1, 2**
2	**Plaster, grey base. Pink Textured stucco**	**Yes**	**840 SF**	**Ext. of house, at roof line and Ext. garage.**
3	Drywall, white/ grey.	No	400 SF	Room 2
4	Seam tape, white.	No	400 SF	Room 2
5	Mud/Joint Compound.	No	400 SF	Room 2
6	**Linoleum, yellow gold pattern**	**Yes**	**30 SF**	**Room 1**
7	**Window Glazing, white**	**Yes**	**21 Units**	**Exterior 1, 2,5**
8	Roof shingles, green/black	No	400 SF	Ext Garage.

Chart B – Other Hazardous Materials Located (Above the household quantity Limitations)			
Material #	**Material Description**	**Quantity**	**Location**
1	**Deck sealant**	**1 Gal**	**Garage 5**
2	**Glazing compound**	**½ Gal**	**Garage 5**
3	**Unknown material.**	**½ Gal**	**Garage 5**
4	**Plastic Drum, unknown contents.**	**55 Gal**	**Garage 5**

5. Inspector's Information

All inspection work was completed by a Michigan certified asbestos abatement inspector as detailed below.

This report reviewed and submitted by:

Aaron Yankee and Stuart Yankee
State of Michigan Certified Asbestos Building Inspector
State of Michigan Card #: A-42490 and A-4115

APPENDICES

APPENDIX A

POLARIZED LIGHT MICROSCOPY ASBESTOS ANALYSIS RESULT FORMS

Environmental Testing Laboratories, Inc.

38900 Huron River Drive, Suite 200
Romulus, Michigan 48174
(734) 955-6600
Fax: (734) 955-6604

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus, MI 48174

Project Location : Vacant Residence
462 Washington, Muskegon, MI

Attention : Samantha Ferguson

Client Project : N/A

ETC Job : 177228

Report Date : 1/20/2016

Login #	Sample ID	Work Requested	Completed
388549	01A	Asbestos Analysis	01/20/2016
388550	01B	Asbestos Analysis	01/20/2016
388551	01C	Asbestos Analysis	01/20/2016
388552	01D	Asbestos Analysis	01/20/2016
388553	01E	Asbestos Analysis	01/20/2016
388554	02A	Asbestos Analysis	01/20/2016
388555	02B	Asbestos Analysis	01/20/2016
388556	02C	Asbestos Analysis	01/20/2016
388557	03A	Asbestos Analysis	01/20/2016
388558	03B	Asbestos Analysis	01/20/2016
388559	04A	Asbestos Analysis	01/20/2016
388560	04B	Asbestos Analysis	01/20/2016
388561	05A	Asbestos Analysis	01/20/2016
388562	05B	Asbestos Analysis	01/20/2016
388563	06A	Asbestos Analysis	01/20/2016
388564	06B	Asbestos Analysis	01/20/2016
388565	07A	Asbestos Analysis	01/20/2016
388566	07B	Asbestos Analysis	01/20/2016
388567	08A	Asbestos Analysis	01/20/2016
388568	08B	Asbestos Analysis	01/20/2016

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Login #	Sample ID	Work Requested	Completed

Reviewed by: Tammy Wade

Quality Assurance Coordinator

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Suite 200, Romulus, Michigan 48174,
(734) 955-6600, Fax: (734) 955-6604

Certificate of Analysis

Polarized Light Microscopy Asbestos Analysis Report

To : Environmental Testing And Consulting Inc.
38900 Huron River Drive
Romulus,MI 48174
Location : Vacant Residence
462 Washington, Muskegon, MI

ETC Job : 177228
Client Project : N/A
Date Collected : 01/15/2016
Date Received : 01/19/2016
Date Analyzed : 01/20/2016

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
388549 01A E Wall Near Entry Layer-1 Analyst: Dave Cousino	Plaster	Grey Non-Fibrous Homogenous	3% Cellulose	95% Other	2% Chrysotile
388549 01A E Wall Near Entry Layer-2 Analyst: Dave Cousino	Skim Coat	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
388550 01B E Wall Near Entry Layer-1 Analyst: Dave Cousino		Not Analyzed			
388550 01B E Wall Near Entry Layer-2 Analyst: Dave Cousino	Skim Coat	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
388551 01C E Wall SE Layer-1 Analyst: Dave Cousino		Not Analyzed			
388551 01C E Wall SE Layer-2 Analyst: Dave Cousino	Skim Coat	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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Location : Vacant Residence
462 Washington, Muskegon, MI

ETC Job : 177228
Client Project : N/A
Date Collected : 01/15/2016
Date Received : 01/19/2016
Date Analyzed : 01/20/2016

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
388552 01D E Wall SE Layer-1 Analyst: Dave Cousino		Not Analyzed			
388552 01D E Wall SE Layer-2 Analyst: Dave Cousino	Skim Coat	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
388553 01E Bsmt 2 SE Crnr Layer-1 Analyst: Dave Cousino		Not Analyzed			
388553 01E Bsmt 2 SE Crnr Layer-2 Analyst: Dave Cousino	Skim Coat	White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
388554 02A Se Ext Crnr Layer-1 Analyst: Dave Cousino	Plaster	Grey Non-Fibrous Homogenous	3% Cellulose	95% Other	2% Chrysotile
388554 02A Se Ext Crnr Layer-2 Analyst: Dave Cousino	Stucco	Grey Non-Fibrous Homogenous	3% Cellulose	94% Other	3% Chrysotile
388554 02A Se Ext Crnr Layer-3 Analyst: Dave Cousino	Texture	Pink Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected

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To : Environmental Testing And Consulting Inc.
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Romulus,MI 48174

Location : Vacant Residence
462 Washington, Muskegon, MI

ETC Job : 177228
Client Project : N/A
Date Collected : 01/15/2016
Date Received : 01/19/2016
Date Analyzed : 01/20/2016

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
388555 02B Ext S Entry Layer-1 Analyst: Dave Cousino		Not Analyzed			
388555 02B Ext S Entry Layer-2 Analyst: Dave Cousino		Not Analyzed			
388555 02B Ext S Entry Layer-3 Analyst: Dave Cousino	Texture	Pink Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
388556 02C S Garage SW Crnr Layer-1 Analyst: Dave Cousino		Not Analyzed			
388556 02C S Garage SW Crnr Layer-2 Analyst: Dave Cousino No Stucco Found	Texture	Pink Non-Fibrous Homogenous	1% Cellulose	99% Other	None Detected
388557 03A N/NW Bsmt 2 Analyst: Dave Cousino	Drywall	Grey/White Non-Fibrous Homogenous	2% Cellulose	98% Other	None Detected
388558 03B N/NW Bsmt 2 Analyst: Dave Cousino	Drywall	Grey/White Non-Fibrous Homogenous	4% Cellulose	96% Other	None Detected

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462 Washington, Muskegon, MI

ETC Job : 177228
Client Project : N/A
Date Collected : 01/15/2016
Date Received : 01/19/2016
Date Analyzed : 01/20/2016

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
388559 04A N/NW Bsmt 2 Analyst: Dave Cousino	Seam Tape	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
388560 04B N/NW Bsmt 2 Analyst: Dave Cousino	Seam Tape	White Fibrous Homogenous	80% Cellulose	20% Other	None Detected
388561 05A N/NW Bsmt 2 Analyst: Dave Cousino	Mud/Joint Compound	White Non-Fibrous Homogenous	5% Cellulose	95% Other	None Detected
388562 05B N/NW Bsmt 2 Analyst: Dave Cousino	Mud/Joint Compound	White Non-Fibrous Homogenous	3% Cellulose	97% Other	None Detected
388563 06A E Entry-Stair Landing Analyst: Dave Cousino	Linoleum	Yellow/Gold Fibrous Homogenous	60% Cellulose	20% Other	20% Chrysotile
388564 06B E Entry-Stair Landing Analyst: Dave Cousino		Not Analyzed			
388565 07A Bsmt 2 E Analyst: Dave Cousino	Window Glazing	White Non-Fibrous Homogenous	3% Cellulose	95% Other	2% Chrysotile

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Location : Vacant Residence
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ETC Job : 177228
Client Project : N/A
Date Collected : 01/15/2016
Date Received : 01/19/2016
Date Analyzed : 01/20/2016

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
388566 07B Bsmt 2 Closet Analyst: Dave Cousino		Not Analyzed			
388567 08A Garage 5 NE Crnr Analyst: Dave Cousino	Roof Shingle	Green/Black Non-Fibrous Homogenous	2% Cellulose 5% Fiberglass	93% Other	None Detected
388568 08B Garage 5 NE Crnr Analyst: Dave Cousino	Roof Shingle	Green/Black Non-Fibrous Homogenous	3% Cellulose 10% Fiberglass	87% Other	None Detected

Lab Supervisor/Other Signatory

Analyst: Dave Cousino

400 Point Count Results by EPA 600/R-93/116 PLM (denoted by "PC")
Item 198.1: PLM Methods for Identifying and Quantitating Asbestos in Bulk Samples
Item 198.6: PLM Methods for Identifying and Quantitating Asbestos in Non-Friable Organically Bound Bulk Samples
EPA 600/R-93/116: Method for Determination of Asbestos in Bulk Building Materials
EPA 600/M4-82-020: Interim Method for Determination of Asbestos in Bulk Insulation Samples

ETL, Inc. maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced without written approval by ETL, Inc. Test Method EPA 600/R-93-116 & EPA 600/M4-82/020 or NYSDOH-ELAP item 198.1 and/or 198.6 was used to analyze all samples. Matrix interference and/or resolution limits (i.e. detecting asbestos in non-friable organically bound materials) may yield false results in certain circumstances. Quantitative transmission electron microscopy (TEM) is currently the only method that can pronounce materials as non-asbestos containing. Interpretation and use of test results are the responsibility of the client. ETL, Inc. is not responsible for the accuracy of the results when requested to physically separate and analyze layered samples. Any PLM results below 10% should be re-analyzed using the EPA recommended Point Count method. Any material that has greater than 1% asbestos content is considered to be an Asbestos Containing Material (ACM). These materials are regulated by both OSHA and the EPA and must be treated accordingly. Results are related to only to samples that were tested.

ENVIRONMENTAL TESTING LABORATORIES, INC
38900 Huron River Drive
Romulus, Michigan 48174
(734) 955-6600
Fax: (734) 992-2261
www.2etl.com

Bulk Asbestos Chain of Custody

ETL Project #:

AARON YANKEE

Client: ETC	Contact: STUART YANKEE	Project Location/name: MUSKEGON BLIGHT 462 WASHINGON AVE MUSKEGON, MI
Address: ROMULUS	Phone:	
	Fax:	
	E-mail:	Client Project #: 177228
Please Provide Results: ☐ Email ☐ Fax ☐ Verbal ☐ Other _____		Date Sampled: 1-15-16

Turnaround Time (TAT): ☐ RUSH ☐ Same Day ☒ 24 hr ☐ 48 hr ☐ Standard (3+ days) ☐ Other _____

PLM Instructions
(Check all that apply)

☒ PLM EPA600/R-93/116, 1993 (Standard method)	☒ Stop at 1st Positive - *Clearly mark Homogenous Group*
☐ Point Counting: 400 Points*	
☐ PLM Non-Building Material (Dust, Wipe, Tape)	☐ Soil or Vermiculite Analysis *

** Additional charge and turnaround may be required*

Lab ID	Sample ID	Sample Location	Material Description
388549	01A - 01E	SEE SAMPLE	
↓	02A - 02C	SUMMARY	
388568	03A - 08B	SHEETS	

		Date	Time
Relinquished (Name/Organization):	STUART YANKEE / ETC	1-18-16	am/pm
Received (Name/ETL):	D.P.	1/19/16	am/pm
Stereoscopical Analysis (Name/ETL):	D. C.	1/19/16	1:30 P am/pm
Sample Login (Name/ETL):	D.P.	1/19/16	am/pm
Analysis (Name/ETL):	D. C.	1/19/16	1:30 am/pm
QA/QC Review (Name/ETL):			am/pm

Special Instructions:	Remarks

Asbestos Material Sampling Summary Sheet
Surfacing materials

Revision date 5/7/2015

Job #: 177228 **Building:** 462 WASHINGTON AVE Muskegon **Date:** 1-15-16

Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
01	Material: PLASTER GRAY BASE WHITE SKIM COAT	F	A	EAST WALL NEAR ENTRY	388549	1,400 SF	
			B	" " " "	388550		
			C	EAST WALL SE	388551		
			D	EAST WALL SE	388552		
			E	BASEMENT 2 SE CORNER	388553		
02	Material: PLASTER GRAY BASE PINK TEXTURE /STUCCO	F	A	SE EXT. CORNER	388554 EXT OF HOUSE AT ROOFLINE & EXT GARAGE	840 SF	
			B	EXT SOUTH ENTRY			
			C	S GARAGE SW CORNER			
				388555 388556			
	Material:						

1000 SF = 3 samples 1000 - <5000 = 5 samples

Asbestos Material Sampling Summary Sheet
Miscellaneous materials

Revision date 5/7/2015

Job #: 177228 | Building: 462 Washington Ave Muskegon | Date: 1-15-16

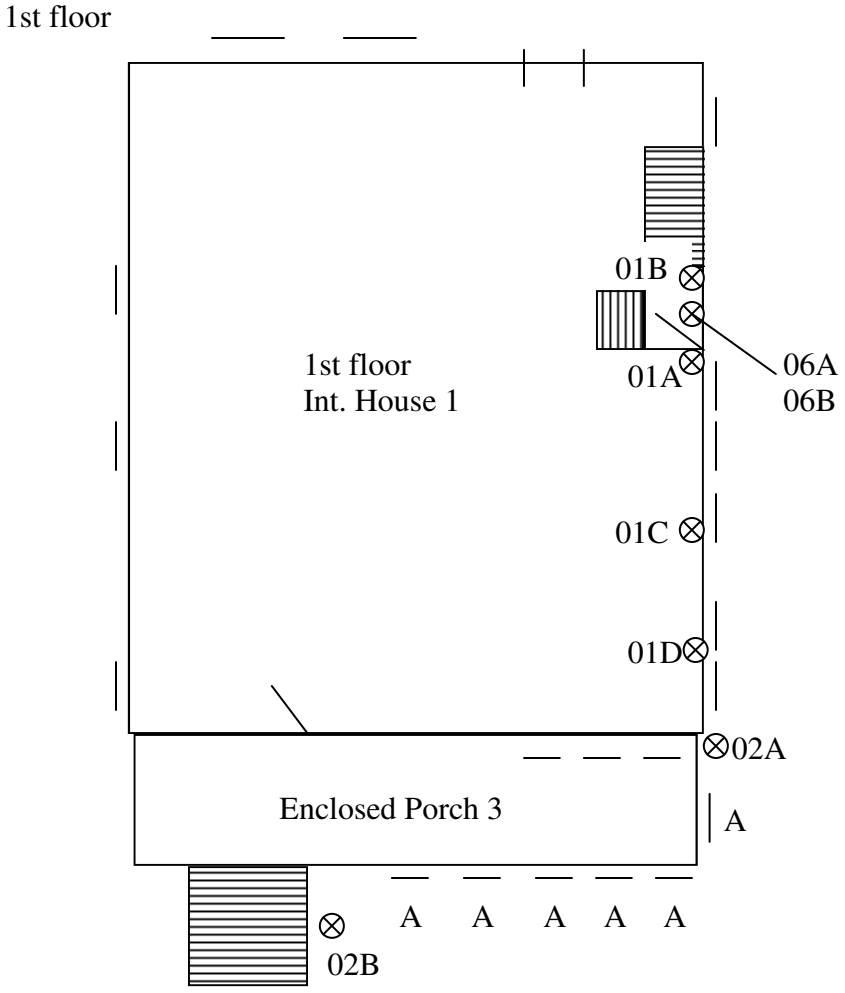
Material no.	Material Description	Friable (F) / Non-Friable (NF)	Sample Letter	Sample Location	Material Located throughout bldg (Please List all Rooms)	Quantity	Picture #
03	Material: DRYWALL Description GRAY / White	F	A B	NORTH / NW BASEMENT - 2 388558	388557 2	400 SF	
04	Material: SEAM TAPE Description WHITE	F	A B	388559 388560	2	???	
05	Material: MUD / JOINT COMPOUND Description WHITE	F	A B	388561 388562	2		
06	Material: LINOLEUM Description YELLOW GOLD PATTERN	NF	A B	EAST ENTRY - STAIR " " LANDING	388563 388564	30 SF	
07	Material: WINDOW GLAZING Description WHITE	F	A B	BASEMENT 2 EAST " 2 Closet	EXT. 1, 2, 5	21 UNITS	388565 388566
08	Material: ROOF SHINGLES Description GREEN / BLACK	NF	A B	GARAGE 5 NE CORNER " " "	EXT. GARAGE	400 SF	388567 388568
	Material: Description						
	Material: Description						
	Material: Description						
	Material: Description						

2 samples

APPENDIX B

SITE MAP

462 Washington, Muskegon, MI 49441

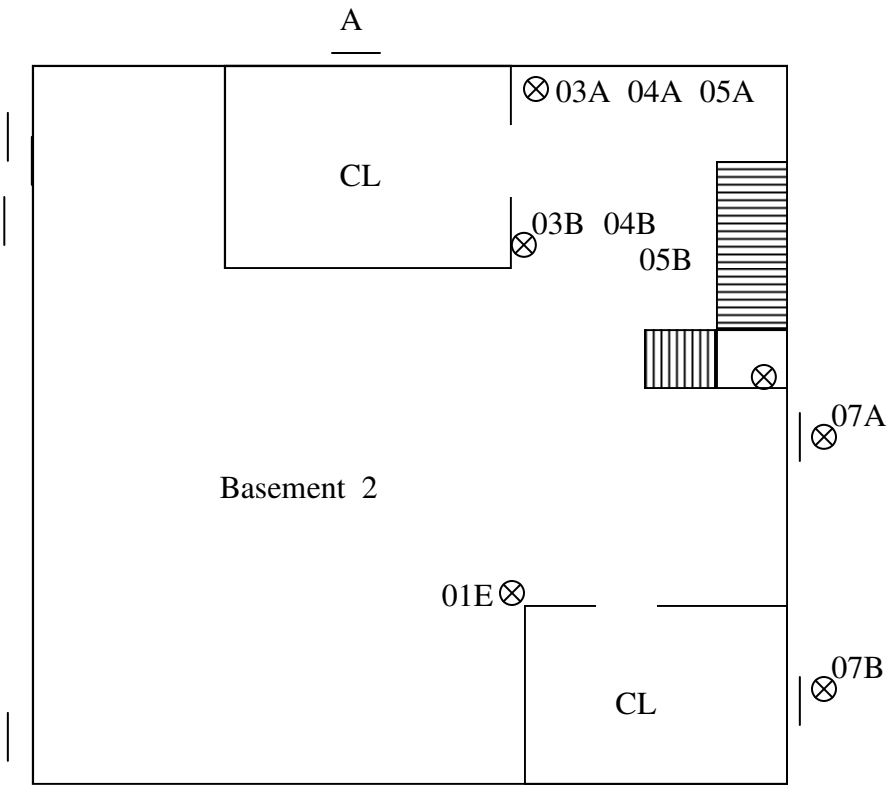


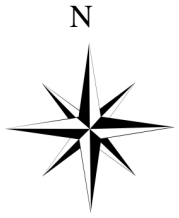
Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

City of Muskegon
177228

462 Washington, Muskegon, MI 49441

Basement

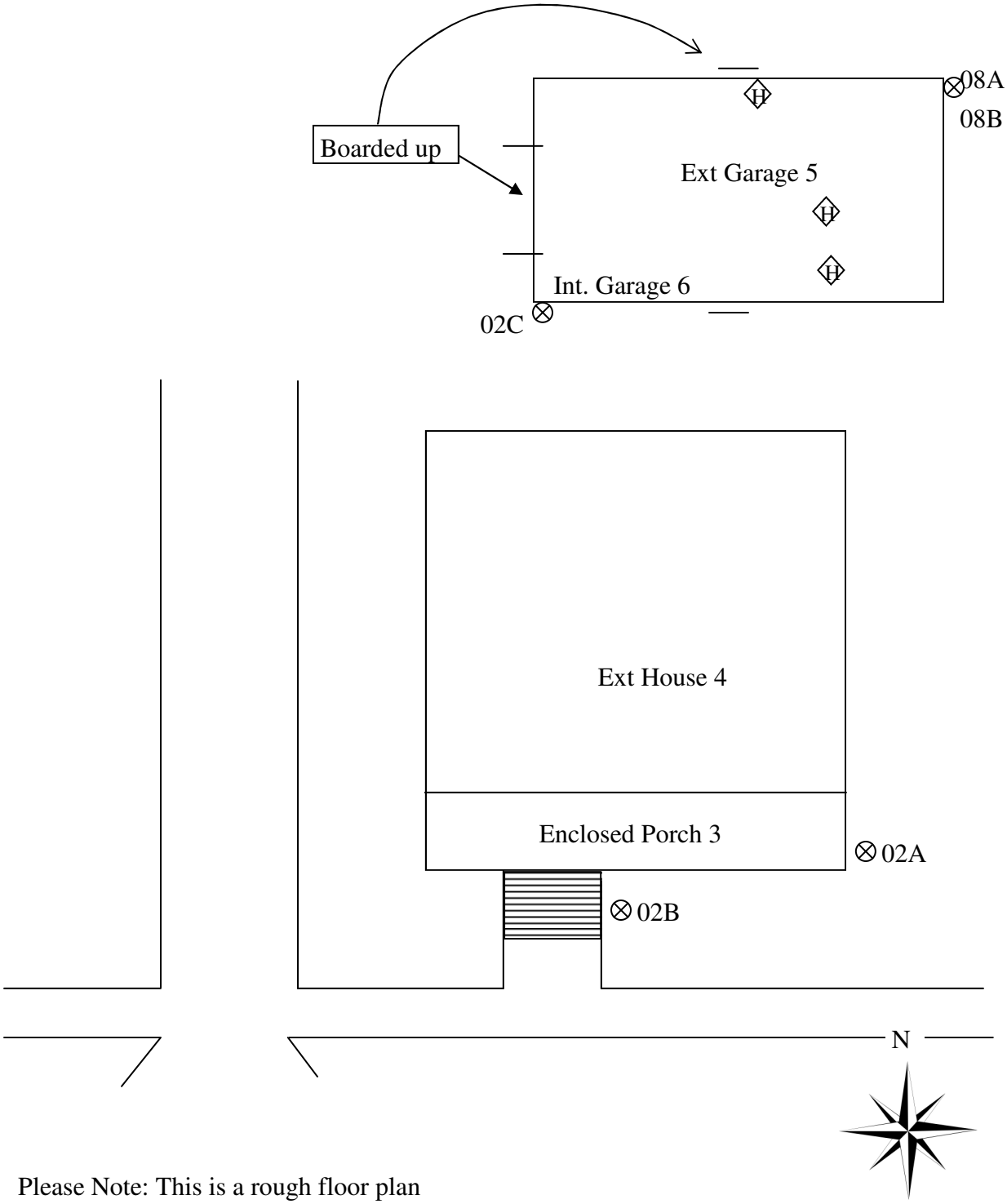




Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

City of Muskegon
177228

462 Washington, Muskegon, MI 49441



Please Note: This is a rough floor plan only. All items, (doorways, Windows, etc.) may not be included in this illustration. Also, room and component sizes are not drawn to scale.

City of Muskegon
177228

APPENDIX C

PHOTOGRAPHS

Front of house

Side B

Side C

Side D

Hazard : 1/2 Gallon Deck Sealer.

Hazard : 1/2 Gallon Glazing Compound

Hazard : 1/2 Gallon Unknown

Hazard:55 Gallon drum, unknown contents.

APPENDIX D

STATE OF MICHIGAN NOTIFICATION OF INTENT TO REMOVE/DEMOLISH

NOTIFICATION OF INTENT TO RENOVATE/DEMOLISH

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

LARA 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, cementatious 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	Non-friable ACM **not** removed prior to demo. Category II	Units of Measure	
				☐ Ln. Ft.	☐ Ln. M.
				☐ Sq. Ft.	☐ Sq. M.
				☐ Cu. Ft.*	☐ 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)

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**, mail notifications to the appropriate address below (by county of subject facility): For more info visit http://www.michigan.gov/deq click on Air, then Asbestos NESHAP Program.

All Counties (except Wayne County)

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

517.241.7463 (Office)
517.373.7064 (Revision Line)

Wayne County Only

NESHAP Asbestos Program
Detroit Field Office, DEQ, AQD
Cadillac Place, Suite 2-300
3058 West Grand Boulevard
Detroit, MI 48202

313.456.4686 (Office)
313.456.2558 (Revision Line)