

Contractor Name, address,  
phone, etc.

Date

City of Muskegon  
Planning Department  
933 Terrace St. Room 202  
Muskegon, MI 49440

***RE: Asbestos Containing Material and Hazardous Materials Inspection  
Property Address & Parcel Number***

Dear:

(Consultant/Business name)has completed an asbestos-containing material (ACM) and hazardous materials inspection at (Address of Subject Property). This inspection was completed at the request of the City of Muskegon to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

### **SUBJECT PROPERTY**

The Subject Property is comprised of a \_\_\_ acre residential parcel which contains a \_\_\_\_\_ sq. ft. detached garage and approximate \_\_\_\_\_ square foot residential building (the Building) constructed in \_\_\_\_\_. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with wood lap while the roof was sealed with multiple layers of rolled roofing. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom and two bedrooms.

### **VISUAL INSPECTION AND SAMPLING**

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

(Name of Consultant & business name of person performing the inspection), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number \_\_\_\_\_) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on \_\_\_\_\_ for suspected asbestos containing building materials.

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

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

Following the completion of the visual inspection, \_\_\_\_\_ staff identified the following materials as suspect ACBM:

List any items that would  
fall under this & the size of  
the area.

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

### **Hazardous Materials Inspection**

On (Date) the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated

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material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

## **INSPECTION RESULTS AND RECOMMENDATIONS**

During the completion of the asbestos inspection, eleven samples of suspect ACM were collected and are documented in Table 2 along with the \_\_\_\_\_ sample number, description, friability, material type, ACM classification, sample location, material quantity and laboratory analytical results.

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

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

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

### **Presumed Asbestos Containing Material**

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

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

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

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

### **Friable ACM’s**

A window glazing sample collected from a storm window in the SE Bedroom was found to contain up to 1.5% asbestos following analysis. The assessment to quantify the extent of this material on (Date) identified five storm windows within the Building that would fall into the same homogenous group. The locations of the windows are listed below:

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- List any items that would fall under this & the size of the area.

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

Duct Wrap identified in the Building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material completed on (Date) identified HVAC Duct Wrap at the following locations within the basement and first floor:

- List any items that would fall under this & the size of the area.

### **Category I ACM**

One type of resilient floor covering (Green Linoleum) located within the kitchen was found to contain up to 30% Chrysotile asbestos. This material is not required to be removed prior to renovation/demolition unless it is expected to become friable during the demolition process.

### **Category II ACM**

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

## **RECOMMENDATIONS**

### **Asbestos Containing Materials**

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

- List any items that would fall under this & the size of the area.

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

- List any items that would fall under this & the size of the area.

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The Category I resilient floor covering (Green Linoleum) is in good condition and may be left in place as long as it will not be subjected to sanding, grinding, cutting, or abrading during the renovation/demolition activities.

### **Hazardous Materials**

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

- List any items that would need to be properly disposed of due to what it is (which isn't asbestos), i.e. tires.

### **REGULATORY REQUIREMENTS**

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

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

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

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

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

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**DISCLAIMER**

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

***Attachment 1***

## ***Tables***