

NOTICE OF ADVERTISEMENT

Seeking Demolition Bids. The Charter Township of Van Buren, Wayne County, MI will receive bids for the <u>demolition</u>, removal, and disposal of an accessory structure (garage), deck, and debris at 15655 Bak Road (Parcel Number 83-129-99-0003-715). Bid forms and demolition work specifications are available at the Office of the Township Clerk, 46425 Tyler Road, Van Buren Township, MI 48111, from 7:30 a.m. - 4:00 p.m., Monday – Friday or on the Township website at <u>www.vanburenmi.org</u>. Bids shall be submitted to the Clerk's Office by 11:00 a.m. on Thursday, May 26, 2022 and will be publicly opened immediately following the closing of the bid. The Township reserves the right to reject any and all bids and reserves the right not to award a contract. Van Buren Township is an equal opportunity employer. This project will be funded with Van Buren Township general funds.

Posted and Published: May 5, 2022



NOTICE TO BIDDERS

NOTICE IS HEREBY GIVEN that **SEALED BIDS** will be received at the Office of the Clerk, located in the Van Buren Township Hall, 46425 Tyler Road, Van Buren Township, MI 48111, on or before Thursday, May 26, 2022 at 11:00 a.m. for the following item:

Demolition, Removal, and Disposal of Accessory Structure (Garage), Deck, and Debris 15655 Bak Road, Van Buren Township, MI 48111 Parcel Number 83-129-99-0003-715

The Charter Township of Van Buren is using general funds for this project. Bids & Requests for Proposals for Township supplies and services can be found on the Township's website at www.vanburen-mi.org.

The Bidding Schedule is as follows:

DATE	DETAIL
Thursday May 5, 2022	Bid Notice Issued
Thursday May 26, 2022	Bid Due Date & Opening at 11:00 a.m.
By or Before Tuesday May 31, 2022	Selection of Contractor and Approval by Township*
By or Before Tuesday, June 7, 2022	Pre-Construction Mtg. (optional)
By or Before Monday, June 13, 2022	Start of Service
By or Before Thursday, July 14, 2022	End of Service (Including Inspection), Subject to Extension upon Mutual Agreement
By or Before Monday, July 25, 2022	Deadline to Submit Final Invoice and other Required Paperwork to Township

^{*}Dependent on Township purchasing amount rules.

For assistance or further information, please contact Vidya Krishnan at vkrishnan@mcka.com or Gage Belko at gbelko@mcka.com.



NOTICE OF REQUIREMENTS

CHARTER TOWNSHIP OF VAN BUREN DEMOLITION, REMOVAL, AND DISPOSAL OF ACCESSORY STRUCTURE AND DEBRIS 15655 BAK ROAD, Van Buren Township, MI 48111 PARCEL NUMBER 83-129-99-0003-715

- **1. GENERAL DESCRIPTION:** This contractor shall furnish all labor, material, supplies, power, machinery, tools and equipment needed to perform the <u>demolition</u>, removal, and <u>disposal of the accessory structure (garage)</u>, <u>deck</u>, <u>and debris at 15655 Bak</u> and restoration of the site.
- 2. PROFESSIONAL REFERENCES REQUIRED: The contractor shall include with the bid a minimum of three (3) local references on the form provided for similar work performed. The Township may make such investigations as it deems necessary to determine the ability of the bidder to perform work, and the bidder shall furnish the Township all such information and date for this purpose as the Township may request. The Township reserves the right to reject any bid if the evidence submitted by or investigation of such bidder fails to satisfy the Township that such bidder is properly qualified to carry out the obligations of the contract and to complete the work contemplated therein.
- 3. **EXAMINATION OF CONTRACT DOCUMENTS AND SITE:** Before submitting a bid each bidder shall:
 - Examine the specifications and contract documents thoroughly;
 - Visit the site to become familiar with local conditions that may in any matter affect cost, progress or performance of the work;
 - Become familiar with all laws, rules, and regulations that may in any matter affect cost, progress or performance of work; and
 - Study and carefully correlate bidder's observations with the Contract Documents.
- **4. BID FORM:** Each bid shall be made on the form provided and shall be submitted in a sealed envelope bearing the title of work and the name of the bidder. All blank spaces for bid prices must be filled in with ink or typewritten. All bids must be signed.
- **5. MODIFICATIONS:** Alternate written bids submitted may be considered; however, final determination as to suitability and compliance with the Specifications and General Provisions will be with the Township.
- **6.** <u>DELIVERY OF BIDS:</u> Bids will be delivered by the time and to the place stipulated in the Notice to Bidders. It is the sole responsibility of the bidder to see that their bid is received in the proper time. Any bid received after the bid opening date and time shall be discarded or returned to the bidder unopened.
- 7. **BID OPENING:** Bids will be opened publicly at the time and place set forth in the Notice to Bidders.
- **8.** <u>WITHDRAWAL OF BIDS:</u> Any bidder may withdraw their bid, either personally or by written request, at any time prior to the scheduled closing time for receipt of bids. Each bid shall be considered binding and in effect for a period of forty-five (45) days after the date of opening set forth in the Notice to Bidders.



- **9. WORKMANSHIP:** All materials furnished under this proposed contract must be of high quality, and of the best workmanship and design unless otherwise expressly specified. The contractor shall, if required, furnish satisfactory evidence as to the kind and quality of materials.
- 10. QUESTIONS / ADDENDA / CLARIFICATION / CORRECTION: Instructions will be given should any questions, addenda, clarification, or corrections in the proposal be called to the attention of the Township not less than one (1) working day before bids are due. Instructions will be in the form of written addenda to the specifications which, if issued will be emailed to all prospective bidders (at the respective email address furnished for such purposes), not later than one (1) day prior to the date fixed for the opening of bids. Failure of any bidder to receive any such addendum or interpretation shall not relieve such bidder from any obligation under his bid as submitted. All addenda so issued shall become part of the contract documents.
- 11. RIGHT TO REJECT: The Township reserves the right to reject any or all proposals in whole or part.
- 12. <u>CONTRACT AWARD</u>: The Township also reserves the right to accept the bid judged as most responsive and satisfactory for its requirements based on standards of the U.S. Department of Housing and Urban Development (HUD) and the Township's purchasing policy. The successful bidder will be notified of the contract award by the Township Planning Director.
- **13. CONTRACT DEFINED:** The contract shall consist of the proposal by the bidder, Notice of Requirements, Specifications and Scope, Bid Proposal, Charter Township of Van Buren purchase order (or Notice of Award), and all written supplemental agreements executed by the contracting parties. The contract may not be assigned or subject without written consent of the Township.
- **14.** <u>AGREEEMENT:</u> Concurrently with the execution and delivery of Agreement, Contractor shall deliver to the Township certificates of insurance as required herein.
 - At least two (2) copies of the Agreement and such other documents, as required, will be signed by the Township and Contractor within seven (7) days of the Notice of Award. The Township will sign the Agreement upon receipt of certificates of insurance and contractor executed Agreement.
- **15. ANTIDISCRIMINATION:** Van Buren Township does not discriminate on the basis of race, color, national origin, sex, religion, age, or disability in employment or the provision of services.
- **16. INSPECTION:** Services will be inspected by the Township's authorized agent as to their general and specific compliance with specifications.
- 17. <u>PAYMENTS:</u> After Contractor has furnished all material and/or completed all work as specified herein, payment will be processed. The Township may require full unconditional waiver of liens from all material suppliers and subcontractors prior to processing final payment.
- **18.** <u>REJECTION:</u> The cost of unloading and storing of rejected goods will be charged to the contractor's account. Rejected material must be removed from the subject property immediately after notification. The Township reserves the right to sell such goods, if not removed, to the highest bidder and credit the contractor's account



with money so received.

- 19. PERFORMANCE BOND: A performance bond as security for faithful performance of this contract may be required by the Township, equal to 100% of the total amount of the contract award, on the form provided. The surety on such bond shall be a duty authorized surety company satisfactory to the owner.
- 20. INSURANCE: Contractor shall at all times during the Agreement maintain in full force and affect Employer's Liability, Worker's Compensation, Compensation General Liability, Property Damage, and Motor Vehicle Liability including contractual liability coverage for the hold harmless provisions. All insurance shall be by insurers and for policy limits acceptable to the Township and before commencement of work hereunder. The Comprehensive General Liability policy shall name the Charter Township of Van Buren as additional insured to protect its interests. Contractor agrees to furnish the Township evidence that such insurance has been procured and is in force.

Certificates of insurance must be provided for evidence and executed by an authorized agent or broker.

For the purposes of the Agreement, Contractor shall carry the following types of insurance in at least the limits specified below:

COVERAGES: LIMITS OF LIABILITY: Workmen's Compensation Statutory*

Employer's Liability

\$1,000,000 Bodily Injury Liability (except automobile) \$1,000,000 per occurrence \$1,000,000 per occurance Property Damage Liability (except automobile) \$2,000,000 aggregate

Motor Vehicle (all owned, non-owned, and hired vehicles) \$1,000,000 per occurrence

All policies affording the various coverage's required by this section shall be endorsed to provide for a ten (10) day prior written notice to be delivered to the Township before any of the coverage's afforded by these policies are either reduced or cancelled.

*Contractors who are "sole proprietor" shall submit a waiver of worker's compensation benefits on an approved form.

- 21. TERMINATION BY THE CONTRACTOR: If the work is stopped for a period of ninety (90) days under an order of any court or other public authority having jurisdiction or as a result of an act of government making materials unavailable through no act or fault of the contractor or a subcontractor or their agents or employees or any other persons performing any of the work under a contract with the contractor, or for the Township's failure to make payment, the contractor may upon seven (7) days written notice to the Township terminate the contract and recover from the Township payment for all work executed and for any proven loss sustained upon any materials, equipment, tools, construction equipment and machinery, including reasonable profit and damages.
- 22. TERMINATION BY THE TOWNSHIP: If the contractor is adjudged as bankrupt or if he makes a general assignment for the benefit of his creditors; or if a receiver is appointed on account of his insolvency; or if he persistently or repeatedly refuses or fails except in cases for which extension of time is provided to supply enough properly skilled



workmen or proper materials; or if he fails to make prompt payment to subcontractors or for materials or labor or persistently disregards laws, ordinances, rules, regulations or orders of any public authority having jurisdiction; or otherwise is guilty of substantial violation of a provision of the contract documents; then the Township may, without prejudice to any right or remedy and after giving the contractor and his surety seven (7) days written notice terminate the employment of the contractor and take possession of the site and all materials, equipment, tools, construction equipment and machinery thereon owned by the contractor and may finish the work by whatever method he may deem expedient. In such case the contractor shall not be entitled to receive any further payment until the work is finished. If the unpaid balance of the contract sum exceeds the costs of the finishing of the work, such excess shall be paid to the contractor. If such costs exceed such unpaid balance, the contractor shall pay the difference to the Township.

- 23. **BURNING AND EXPLOSIVES:** Burning waste materials and the use of explosives at the site are prohibited.
- **24. <u>DUST CONTROL</u>**: Dust control shall be performed by the Contractor in accordance with all laws, ordinances, and permits. The demolition work and removal operations all employ adequate controls so as to prevent visible emissions of dust and to avoid migration of airborne materials off-site, including misting operations. Use of water will not be permitted when it will result in or create hazardous or objectionable conditions such as ice, flooding, pollution and electrical shock.
- **25.** <u>DEMOLITION, REMOVAL, DISPOSAL, AND SITE RESTORTION:</u> All demolition, removal, disposal, and site restoration shall be in accordance with the enclosed Scope and Specifications (Appendix A).

26. RECYCLING:

- **A.** The Contractor has the option, and is strongly encouraged to recycle any materials found or demolished on-site in order to reduce the amount of materials disposed of. The Contractor shall have all salvage and recycling rights for the building materials and equipment currently in the structure unless noted otherwise.
- **B.** Regulated materials shall be recycled at a licensed recycling facility. Contractor shall use only recyclers that are authorized by the appropriate regulatory agency and approved by the Engineer for recycling of these materials.



CONTRACTOR INFORMATION

Company Name:	Federal EIN:	_
Address:		
	State: ZIP:	
Telephone:	Fax:	_
E-mail:		
Authorized Signature:	Print Name:	
Authorized Signature:		
Print Name:		



REFERENCES

Attach the names of three references to your proposal.

Name of Company:

Contact Person:

Phone Number:

Name of Company:

Contact Person:

Phone Number:

3. Name of Company:

Contact Person:

Phone Number:



BID PROPOSAL

PROPOSAL TO CHARTER TOWNSHIP OF VAN BUREN, WAYNE COUNTY, MICHIGAN

BID PROPOSAL FOR: Demolition, Removal, and Disposal of Accessory Structure (garage), Deck, and Debris at 15655 Bak Road, Van Buren Township, MI 48111 (Parcel Number 83-129-99-0003-715)

BID OPENING: Thursday, May 26, 2022 at 11:00 a.m.

TO: Clerk, Charter Township of Van Buren

46425 Tyler Road

Van Buren Township, MI 48111

Everyone:

The undersigned has examined the various bid documents attached hereto and is fully informed as to the requirement provided therein, the nature of the service and conditions relating to performance thereof. The undersigned hereby proposes to furnish all labor, material and equipment to complete the demolition, removal, disposal, and site restoration project for which a lump sum bid proposal is indicated below, all in accordance with the bid documents.

TOTAL BID AMOUNT \$		
	oid, certifies that they are the (Title)at they sign the bid on behalf of the firm, and n.	
NAME AND ADDRESS OF BIDDER:		
Company Name:		
Address:		
	Zip	_
Bid Submitted by:		
(Signature)	(Title)	
Print Name:		-
Telephone No.:		
D. L.		



APPENDIX A: SCOPE AND SPECIFICATIONS

BID FORMS AND SPECIFICATONS FOR THE DEMOLITION, REMOVAL AND DISPOSAL OF ACCESSORY STRUCTURE (GARAGE) AND DECK. REMOVE ALL CONSTRUCTION DEBRIS AND OTHER DEBRIS FROM AROUND THE BUILDING AND FOUNDATION SITES. BACKFILL ALL OPEN HOLES WITH CLEAN FILL DIRT AND ROUGH GRADE, PLACE SEED AND STRAW ON GRADED AREAS.

The Charter Township of Van Buren, Wayne County, MI, hereafter referred to as LOCAL MUNCIPALITY, is seeking bids for the demolition and site restoration work described herein on a parcel of land known as **15655 Bak Road**, **Van Buren Township**, **MI 48111**, **Parcel Number 83-129-99-0003-715**.

DEFINITIONS

- **A. DEMOLITON CONTRACTOR** The successful bidder accepted by the Charter Township of Van Buren, Wayne County, Michigan.
- B. LOCAL MUNCIPALITY The Charter Township of Van Buren, Wayne County, MI.
- **C. PROOF** The appropriate forms, releases and other documentation as required by the regulating agency.
- **D. PUBLIC UTILITIES** The agency whether public or private that supplies the utility to the parcel of land.
- **E. REGULATING AGENCY** The unit of government or other entity which has statutory and/or jurisdiction and is recognized by the Charter Township of Van Buren, Wayne County, MI as the authority.
- **F. RECOGNIZED AND ACCEPTABLE PROFESSIONAL DEMOLITION CONTRACTOR** The Company determined by the Charter Township of Van Buren, Wayne County, MI which has submitted a complete bid form and whether by professional credentials or past experience demonstrates it can perform the work as described.
- **G. SCHEDULE OF WORK** A narrative, chart or other written documentation of the commencement and completion of work as measured in days, weeks and/or months.
- **H. SUCCESSFUL BIDDER** The company or individual who has submitted a complete bid form and is recognized and acceptable to the Charter Township of Van Buren, Wayne County, MI.
- **I. WORK** The scope of work as described in this bid form.
- J. BUILDING INSPECTOR / CODE OFFICAL The Van Buren Township employee overseeing and coordinating the work.



SCOPE OF WORK SHALL INCLUDE:

- 1. Disconnect all electrical lines (if any) to garage (aka pole barn) to be demolished using DTE's direction.
- 2. Demolish, remove, and dispose of the garage (aka pole barn) and deck including the foundations, walls, footings, and other debris in accordance with all applicable laws and ordinances.
- **3.** Remove and dispose of all construction debris and other debris on the property in accordance with all applicable laws and ordinances.
- **4.** Backfill all open holes with clean fill dirt and grade all holes and excavations that were part of the demolition areas.
- 5. Seed and mulch all backfilled and graded areas with a grass seed mix appropriate for the area.

SPECIFICATIONS FOR DEMOLITION BIDS

All WORK will be performed per the specifications described herein. The successful bidder shall be a recognized and acceptable professional demolition contractor by the LOCAL MUNCIPALITY and determined to be the DEMOLITION CONTRACTOR. The successful bidder shall show proof of liability insurance, equipment/vehicle insurance, and a current worker's compensation insurance policy in amounts as described below and where applicable shall name the LOCAL MUNICIPALITY as an additional insured.

- **A.** The DEMOLITION CONTRACTOR shall perform the WORK in a professional, efficient, orderly and workman like manner.
- **B.** The DEMOLITION CONTRACTOR must make application for all required permits, pay all required fees and provide for all sureties, insurances and bonds as required by all regulating agencies.
- C. The DEMOLITION CONTRACTOR shall name the Charter Township of Van Buren, Wayne County, MI its elected officials, employees, agent's members of boards and commissioners as an additional insured. This insurance is to be maintained during the term of the work and shall not be canceled without 30 days prior written notice to the LOCAL MUNICIPALILTY. Further if the insurance is canceled the Demolition Contractor must obtain replacement insurance prior to the termination of the prior insurance.
- **D.** The DEMOLITION CONTRACTOR shall maintain liability insurance, equipment/vehicle insurance, and a current worker's compensation insurance policy in amounts as described below. This insurance is to be maintained during the term of the work. Further if the insurance is canceled the Demolition Contractor must obtain replacement insurance prior to the termination of the prior insurance.
- **E.** PROOF of proper and safe disposal of materials shall be provided.
- **F.** All excavations to be filled are to be done so with clean soil acceptable to the Township. Placed fill shall be compacted to such an extent to minimize settling. The DEMOLITION CONTRACTOR shall be responsible for any



earth settling in the areas of backfill and grading for a period not to exceed 1 year from the time of acceptance by the Township.

- G. Any and all trees and vegetation not to be removed shall be protected from damage. Any and all trees and vegetation that must be removed to perform the WORK shall be identified and approved for removal by the Township Building Inspector / Code Official.
- H. The DEMOLITION CONTRACTOR shall obtain all utility releases and disconnects from the appropriate agencies / public utilities. PROOF of utility releases must be submitted to the Building Inspector / Code Official prior to the start of demolition.
- I. All final earth grading shall be performed and finished to match surrounding grades so as to not cause stormwater drainage / flooding issues.
- J. No borrow pits, on-site burial of debris and material or burning shall be permitted.
- K. The DEMOLITION CONTRACTOR shall prior to beginning the WORK post a performance bond in favor of the Township in an amount equal to 100% of the value of the WORK.
- L. The DEMOLITION CONTRACTOR shall provide an accepted schedule of WORK. The Building Inspector / Code Official shall review and approve the schedule. Unless previously authorized by an approved change order, liquidated damages in an amount of \$50.00/day shall be levied against the DEMOLITION CONTRACTOR for failure to start within 10 days of the agreed start date and / or for failure to complete within 5 days of the agreed upon completion date.
- M. Any and all questions, conflicts and other contractual matters shall first be brought to the attention of the Building Inspector / Code Official. The Building Inspector / Code Official shall then take appropriate action, which may include reviewing the matter(s) with their supervisor for resolution.

Asbestos Survey Report

FOR THE PROPERTY AT:

15655 Bak Road Belleville, MI 48111



ETC Job #: 238030

Prepared For:

Van Buren Township 46425 Tyler Road Belleville, MI 48111 734-699-8900

Date of Inspection: 05/24/2021

Date of Report: 06/10/2021

Report Prepared and Submitted By:

Andrew Hildebrandt

Michigan Asbestos Inspector License #: A45296



38900 West Huron River Drive Romulus, MI 48174 734-955-6600 www.2etc.com

TABLE OF CONTENTS

ASBESTOS SURVEY REPORT	1
PURPOSE OF THIS INVESTIGATION	3
KEY DEFINITIONS	3
EXECUTIVE SUMMARY	4
INSPECTOR CERTIFICATION	4
MATERIALS TABLES	5
Materials Sampled and Asbestos Content	
APPENDICES	
APPENDIX A – MAPS.	6
APPENDIX B — PHOTOS	7
APPENDIX C — EDUCATION, TESTING, RESOURCES & LAWS	
APPENDIX D - LABORATORIES LISED & ORIGINAL LABORATORY ANALYSIS REPORTS	17



Purpose of this investigation

The purpose of this inspection was to determine the presence and quantity of ACM's.

KEY DEFINITIONS

ACM Asbestos containing material. ACM's fall into 1 of 3 types. See Appendix C-1

Friable Can be crumbled, pulverized, or reduced to powder by the pressure of an

ordinary human hand.

Non-Friable Cannot be pulverized under hand pressure.

Potentially Friable

Areas

Can become friable if disturbed.

Refers to the two (2) types of Non-Friable ACM's. See Appendix C-1 Category

Hazardous Non-asbestos materials that may be hazardous, and may require special handling Materials and disposal requirements.

Room The room testing occurred. Rooms are identified by a number because room usage may change (i.e., a bedroom may become an office). Some rooms may be

labeled as functional spaces (FS).

Inaccessible These are locations around the property that could not be examined because the investigator could not gain access to them. These include areas that are unsafe

to enter, locked rooms, areas with too much debris/clutter, etc.

Quantity Materials are usually quantified in square feet (SF), cubic feet (CF), linear feet (LF),

cubic yards (CY), or units.

EPA Environmental Protection Agency

OSHA Occupational Safety and Health Administration

Executive Summary

After a thorough investigation of the premises was conducted, and samples were collected and analyzed, it was determined that there were **NO ACM's** present in this building.

There were NO hazardous materials found at this property.

This was a limited survey that included only the garage and the deck but the deck had already been removed and no deck remained to be sampled.

Note: Before renovation or demolition activities can begin, and depending on the ACM found and the condition that it is in, it may be necessary that friable or potentially friable ACM's be removed.

Inspector Certification

The information contained in this report is a true and accurate representation of the conditions and activities at this property at the time of this investigation, based on the professional judgment of the person(s) who conducted and reported this asbestos inspection. All inspection work was completed by the Michigan certified asbestos inspector(s) listed below.

Andrew Hildebrandt

Inspector E-Mail address: Andrew.Hildebrandt@2etc.com

Materials Tables

MATERIALS SAMPLED AND ASBESTOS CONTENT

	TABLE 1: ASBESTOS CONTENT RESULTS							
#	MATERIAL DESCRIPTION	FRIABILITY	LOCATION (REFER TO MAPS IN APPENDIX A)	QUANTITY	ASBESTOS			
1	Insulation – Blown-In, Brown	F	Interior Garage	1,500 SF	No			
2	Floor – Concrete, Red	NF 2	Interior Garage	1,500 SF	No			
3	Roofing – Asphalt Shingles, Black	NF 1	Exterior Garage	1,800 SF	No			
4	Roofing – Vapor Barrier, Black	NF 2	Exterior Garage	1,800 SF	No			

- Bolded materials are those that were found to contain asbestos at a concentration >1%. Please refer to "Interpretation of Inspection Results" in section C-2.
- Asterisked (*) materials are those that were found to contain asbestos at a concentration >0% but ≤ 1%. Please refer to "Interpretation of Inspection Results" in section C-2.
- ❖ F = Friable; NF 1 = Non-Friable Category 1; NF 2 = Non-Friable Category 2
- Quantities that are listed are estimates only; in general, listed quantities represent only 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 always be assumed to be ACM.



Page 5 of 17

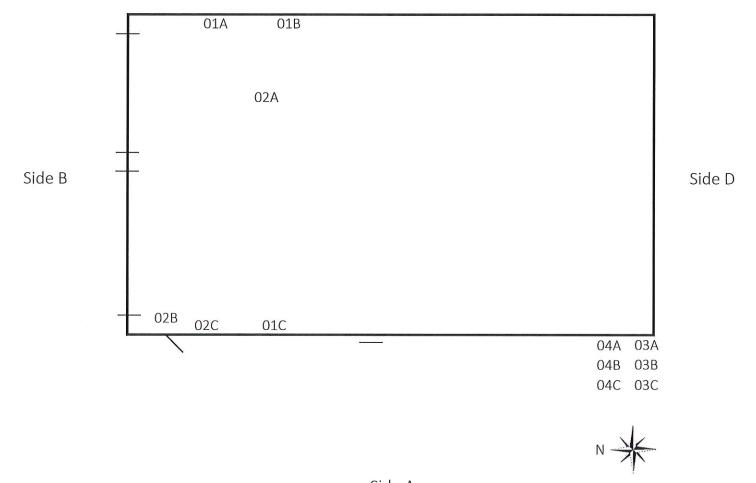
Appendices

APPENDIX A - MAPS

<u>Floor Plans</u>

GARAGE

Side C



Side A

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.



APPENDIX B – PHOTOS





Side A







Side C

Side D







Interior of Garage

Removed Deck, not tested





Blown-In Insulation

Concrete Floor



ETC Job #: 238030 Page 8 of 17



Asphalt Shingle and Vapor Barrier



APPENDIX C - EDUCATION, TESTING, RESOURCES & LAWS

C-1: Asbestos Education

ASBESTOS

Asbestos is a generic term encompassing various fibrous mineral silicates from 2 groups:

- Serpentine "curly fibers" and layered structure
 - o Chrysotile (hydrated magnesium silicate) about 95% of asbestos in US buildings
- Amphibole "needle-like" structure
 - o Amosite (iron magnesium silicate) 2nd most commonly used asbestos
 - o Crocidolite (sodium-iron silicate)
 - o Tremolite (calcium-magnesium silicate) potential contaminate in vermiculite
 - o Anthophyllite (another iron-magnesium silicate)
 - o Actinolite (calcium-magnesium-iron silicate)

CATEGORIES OF ASBESTOS CONTAINING MATERIALS

The EPA identifies three (3) categories of ACM used in buildings:

- Surface Materials ACM sprayed or troweled on surfaces (i.e. walls, ceilings, etc.) for acoustical, decorative, or fireproofing purposes (i.e. plaster and fireproofing insulation).
- Thermal System Insulation (TSI) Insulation used to inhibit heat transfer or prevent condensation on pipes, boilers, ducts, HVAC systems, etc. This includes pipe lagging, pipe wrap, block, batt, cements, "muds", ropes, gaskets, etc.
- Miscellaneous Materials Other, largely non-friable products, that include floor tile, ceiling tile, roofing felt, wall board, outdoor siding, etc.

CHARACTERISTICS OF ASBESTOS CONTAINING MATERIALS

ACM's are characterized in one of two ways. They are either:

- Friable when dry, can be crumbled, pulverized, or reduced to powder by the pressure
 of an ordinary human hand.
- Non-Friable cannot be pulverized under hand pressure.
 - Category I includes asbestos packings, gaskets, resilient floor covering, and asphalt roofing products.
 - Category II any non-friable ACM not included in Category I such as mastic, cementitious materials, and ceiling tiles.

ASBESTOS EXPOSURE

Airborne asbestos contamination in buildings is a significant environmental problem. It has been determined and documented that inhalation of significant quantities of airborne asbestos fibers over an extended period of time can have serious health effects.



In order to assess any potential health risks within a building, it is necessary to conduct a survey of the building to identify and locate any friable or non-friable asbestos containing materials (ACM) that may be located within.

If and when ACM are located within a building, the ACM must then be evaluated and assessed to determine whether any immediate health hazards are presented to the building occupants. It must be noted that the presence of asbestos in a building does not necessarily mean that the health of the building occupants is endangered. As long as an ACM remains intact (in good condition and is not disturbed, damaged, or mutilated) exposure of asbestos fibers to the air is unlikely.

HEALTH EFFECTS OF ASBESTOS EXPOSURE

The potential health hazards associated with exposure to asbestos results from inhalation of airborne fibers; small asbestos fibers can pass readily through the upper respiratory tract and be deposited in the terminal bronchioles of the lung. There they can produce a local irritation which the body attempts to neutralize by initiating a tissue response. The resulting body response is encapsulation of the fibers and consequent formation of "asbestos nodules."

Common asbestos related diseases include:

- Lung Cancer
- Mesothelioma
- Asbestosis
- Chronic Obstructive Pulmonary Disease (COPD)

C-2: Asbestos Testing

SAMPLING

Representative bulk samples of suspected ACBMs 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.)

While the NESHAP regulation allows for the taking of one sample of select non-friable materials, the OSHA standard suggests a minimum of three samples of each homogeneous material be taken. 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 may choose to take three samples of each material.

If materials are being assumed to contain asbestos, they must be treated 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).



FOLLOW-UP INSPECTIONS

In some cases, ETC may identify areas where destructive access was required to review materials that were not readily accessible. In these cases, a follow-up inspection may be required once access to these areas is granted in order to assess these previously inaccessible areas.

Additionally, materials that were deemed to be positive for asbestos content during the initial survey will need to be quantified and have their conditions assessed in a follow-up inspection.

PLM ANALYSIS METHODOLOGY

Bulk samples submitted for Polarized Light Microscopy (PLM) analysis were analyzed utilizing the Environmental Protection Agency's <u>Test Method: Method for the determination of Asbestos in Bulk Building Materials</u> (EPA 600/R-93/116, July 1993). Additional treatment and tests may be required to accurately define composition (e.g. ashing, fiber extraction, acid dissolution, TEM).

Analysis was performed by visual and stereoscopic examination of the bulk sample followed by microscopic examination and quantification using a polarized light microscope. The samples were analyzed for asbestos (chrysotile, amosite, crocidolite, anthophyllite, and actinolite/tremolite), fibrous non-asbestos constituents (mineral wool, cellulose, etc.) and non-fibrous constituents.

According to NESHAP requirements, any bulk sample that has an asbestos content above 0% but below 10% should be point counted for final determination of percentage. *Please note, that when a contract DOES NOT include point counting as defined in NESHAP,* and additional analysis is desired, 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.

INTERPRETATION OF INSPECTION RESULTS

A material is considered by the EPA, OSHA, and other federal, state, and local agencies 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 %).

However, materials with concentrations greater than zero percent (0%) but less than or equal to one percent (≤1%), will now be considered regulated under certain sections of the OSHA Asbestos in Construction Standard (29 CFR 1926.1101).

The standard contains numerous work practice requirements and prohibitions which apply, regardless of the exposure levels. However, only two of the requirements and three of the prohibitions must be observed in the case of work activities involving installed construction materials that do not contain >1% asbestos. Those work practice requirements and prohibitions that must be observed regardless of the exposure levels and of the percentage of asbestos in the installed construction materials are:

29 CFR 1926.1101(g)(1)(ii), which requires: wet methods, or wetting agents, to control employee exposures during asbestos handling, mixing, removal, cutting, application, and cleanup, except where employers demonstrate that the use of wet methods is infeasible





- due to, for example, the creation of electrical hazards, equipment malfunction, and, in roofing, except as provided in paragraph (g)(8)(ii) 2 of this section;
- 29 CFR 1926.1101(g)(1)(iii), which requires: prompt clean-up and disposal of wastes and debris contaminated with asbestos in leak-tight containers except in roofing operations, where the procedures specified in paragraph (g)(8)(ii)³ of this section apply;
- 29 CFR 1926.1101(g)(3)(i), which prohibits: high-speed abrasive disc saws that are not equipped with point-of-cut ventilator or enclosures with HEPA filtered exhaust air;
- 29 CFR 1926.1101(g)(3)(ii), which prohibits: compressed air used to remove asbestos, or materials containing asbestos, unless the compressed air is used in conjunction with an enclosed ventilation system designed to capture the dust cloud created by the compressed air; and
- 29 CFR 1926.1101(g)(3)(iv), which prohibits: employee rotation as a means of reducing employee exposure to asbestos.

There are also some other provisions that apply to work activities involving installed construction materials even where the material does not contain >1% asbestos. However, if neither asbestos PEL is exceeded, only the following few provisions apply:

- 29 CFR 1926.1101(f)(2)(i), the provision for establishing that neither asbestos PEL is exceeded: Each employer who has a workplace or work operation covered by this standard shall ensure that a "competent person" conducts an exposure assessment immediately before or at the initiation of the operation to ascertain expected exposures during that operation or workplace. The assessment must be completed in time to comply with requirements which are triggered by exposure data or the lack of a "negative exposure assessment," and to provide information necessary to assure that all control systems planned are appropriate for that operation and will work properly;
- 29 CFR 1926.1101(f)(6)(i), a provision covering the observation of monitoring: The employer shall provide affected employees and their designated representatives an opportunity to observe any monitoring of employee exposure to asbestos conducted in accordance with this section;
- 29 CFR 1926.1101(f)(5)(i), a provision covering employee notification of monitoring results: The employer shall notify affected employees of the monitoring results that represent that employee's exposure as soon as possible following receipt of monitoring results;
- 29 CFR 1926.1101(f)(5)(ii), another provision covering employee notification of monitoring results: The employer shall notify affected employees of the results of monitoring representing the employee's exposure in writing either individually or by posting at a centrally located place that is accessible to affected employees; and
- 29 CFR 1926.1101(n)(2)(i)-(iii), a set of provisions covering recordkeeping for measurements of exposures to airborne asbestos.

There are numerous additional provisions of the standard that apply to work activities involving installed construction materials even where the material does not contain >1% asbestos if at least one of the asbestos PELs is exceeded.



A letter of interpretation from Federal OSHA authorities that explains this position can be found by following the link below:

https://www.osha.gov/laws-regs/standardinterpretations/2003-11-24-0

Note: A summary of the materials sampled, asbestos content, quantities and locations can be found in Table 1.

C-3: Other Hazardous Materials and Vermiculite

Hazardous Materials

Additionally, information showing other hazardous materials (above the household quantity limitations) found at the site is included in Table 2. This lists non-asbestos materials that may be hazardous, and may require special handling and disposal requirements. Items that might be in this category include things like tires, 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 Table 2. 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.

Vermiculite

The EPA is informing the public to consider all vermiculite insulation as ACM, and is doing so because the current method is not accurate and yields false negatives when used on vermiculite.

However, the current standard PLM and point count methods satisfy the minimum EPA regulatory requirements for analysis of vermiculite loose fill insulation under 40 CFR part 61, subpart M. The EPA plans on publishing an analysis method that will be more accurate for vermiculite insulation. Upon its publishing, this method will supersede the current methods and continue use of the old methods will be subject to enforcement action.

ETC Job #: 238030 Page 14 of 17



C-4: Additional Resources

Additional information about asbestos is available on the Internet through the U.S. EPA's homepage (www2.epa.gov/asbestos). Demolition specific information can be found at https://www.epa.gov/large-scale-residential-demolition/asbestos-containing-materials-acm-and-demolition. In addition, the Asbestos NESHAP notification form, guidelines for completing the form and regulations are located at www.michigan.gov/air. Select "Asbestos NESHAP Program".

Questions about the federal OSHA standards or the state's asbestos compliance and training requirements can be obtained by visiting the LARA Asbestos Program's web site at www.michigan.gov/asbestos. Questions related to the transportation of asbestos can be addressed by the U.S. Department of Transportation's (U.S. DOT) Hazmat Information Center at 800-467-4922.

Head to https://asbestosprogram.apps.lara.state.mi.us/Contractor/ContractorSearch for a list of Michigan asbestos abatement contractors.

A "Notification of Intent to Renovate/Demolish" form can be found online at https://www.michigan.gov/documents/deq/deq-aqd-field-tpu-asbestos-notification-form 262676 7.pdf.

Additional information about vermiculite is available on the EPA's website and is located at https://www.epa.gov/asbestos/protect-your-family-asbestos-contaminated-vermiculite-insulation.

C-5: Regulatory Information

The Environmental Protection Agency (EPA) set the standard for asbestos surveys in the AHERA regulations (40 CFR Part 763) which required surveys of all school buildings in the United States. Additionally, the Department of Occupational Safety and Health (OSHA) has also passed regulations affecting the performance of asbestos surveys in buildings. According to current OSHA regulations (29 CFR 1926.1101), building owners must inform occupants of the location, quantity and condition of confirmed or assumed asbestos containing materials within all public and commercial facilities.

In addition to these regulations regarding surveys, facility owners and operators are also required to insure that employees or occupants of their buildings are not exposed to unsafe levels of airborne asbestos. Allowable fiber levels as defined by the regulatory agencies and standards below dictate which levels are applicable in which facilities:



0.01 f/cc - Environmental Protection Agency (EPA) Clean Air Standard

This standard was designed as a clearance criterion for asbestos removal projects in schools. This means that if a removal project occurs in a school, air testing must be conducted in the removal area after work is completed. The results of this sampling must be below this level in order to allow re-occupancy of this area.

0.05 f/cc - Michigan Occupational Safety and Health Administration (MIOSHA) Clean Air Standard

This standard is similar to the EPA standard previously mentioned except that it applies to all other public buildings and areas within the State of Michigan

0.10 f/cc - Occupational Safety and Health Administration (OSHA) Personal Exposure Level

This is the OSHA 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 be at or near the PEL the employer will have to:

- Implement Worker Training
- Conduct Employee Respiration Monitoring
- Perform Recordkeeping
- Conduct Medical Surveillance
- Notify Workers
- Post Danger Signs
- Perform periodic air monitoring, establish regulated areas, and construct decontamination facilities
- Provide respiratory protection and personnel protective clothing

For these reasons, it is important that building owners conduct a combination of a complete asbestos bulk survey and periodic air monitoring to determine what types of asbestos containing materials (ACM) are present in their building, what condition these materials are in and to what extent these materials have become airborne.

ETC Job #: 238030 Page 16 of 17



APPENDIX D – LABORATORIES USED & ORIGINAL LABORATORY ANALYSIS REPORTS

D-1: Laboratory Used

Environmental Testing Laboratories 37575 West Huron River Drive Romulus, MI 48174 1-734-955-6600

D-2: Original Laboratory Analysis Reports

All of the original laboratory analysis reports for any samples that were sent for testing are included in the following pages.

DISCLAIMER:

The information contained herein is accurate for conditions present at the time of the investigation. In addition, ETC will not be held liable for incorrect or inaccurate information provided by the client, occupant, or property owner, or the recommendations based on that incorrect or inaccurate information. This report (including any enclosures and attachments) has been prepared for the exclusive use and benefit of the addressee(s) and solely for the purpose for which it is provided.

Unless ETC provides express prior written consent, no part of this report should be reproduced, distributed or communicated to any third party. ETC does not accept any liability if this report is used for an alternative purpose from which it is intended, nor to any third party in respect of this report.

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 the addressee(s)/and or client will incur additional charges for the additional sampling and analysis.





37575 W Huron River Drive Romulus, Michigan 48174 (734) 955-6600 Fax: (734) 955-6604

To: Environmental Testing And Consulting Inc.

38900 Huron River Drive Romulus, MI 48174 ETL Job: 238030

Client Project: 238030

Report Date: 5/28/2021

Attention:

Project Location: 15655 Bak Rd, Belleville, MI 48111

Vacant Single Family Residence

Lab Sample Number	Client Sample Number	Sample Type	Completed
1224098	1a	Asbestos PLM	05/28/2021
1224099	1b	Asbestos PLM	05/28/2021
1224100	1c	Asbestos PLM	05/28/2021
1224101	2a	Asbestos PLM	05/28/2021
1224102	2b	Asbestos PLM	05/28/2021
1224103	2c	Asbestos PLM	05/28/2021
1224104	3a	Asbestos PLM	05/28/2021
1224105	3b	Asbestos PLM	05/28/2021
1224106	3c	Asbestos PLM	05/28/2021
1224107	4a	Asbestos PLM	05/28/2021
1224108	4b	Asbestos PLM	05/28/2021
1224109	4c	Asbestos PLM	05/28/2021

Lab Sample Number Client Sample Number Sample Type Completed

Reviewed by:

Rovena Shparthi

Kareno Spatts

This report is intended for use solely by the individual or entity to which it is addressed. This report may not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST, or any agency of the Federal Government. It may contain information that is privileged, confidential and otherwise exempt by law from disclosure. If the reader of this information is not the intended recipient or an employee of its intended recipient, you are herewith notified that any dissemination, distribution or copying of this information is strictly prohibited. If you have received this information in error, please notify ETL immediately. Thank you.



Certificate of Analysis

Environmental Testing Laboratories, Inc.
37575 W Huron River Drive
Romulus, Michigan 48174
(734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

To: Environmental Testing And Consulting Inc.

38900 Huron River Drive

Romulus, MI 48174

Location: Vacant Single Family Residence

15655 Bak Rd, Belleville, MI 48111

ETC Job: 238030

Client Project: 238030

Date Collected: 05/24/2021

Date Received: 05/25/2021

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
1224098 1a Int Garage Analyst: Dawson Date Analyzed :	Insulation Blown-in Bradley 05/28/2021	Brown Fibrous Homogenous	PLM 99% Cellulose	PLM 1% Other	PLM None Detected
1224099 1b Int Garage Analyst: Dawson Date Analyzed :	Insulation Blown-in Bradley 05/28/2021	Brown Fibrous Homogenous	PLM 99% Cellulose	PLM 1% Other	PLM None Detected
1224100 1c Int Garage Analyst: Dawson Date Analyzed :	Insulation Blown-in Bradley 05/28/2021	Brown Fibrous Homogenous	PLM 99% Cellulose	PLM 1% Other	PLM None Detected
1224101 2a Int Garage Analyst: Dawson Date Analyzed :	Floor Concrete Bradley 05/28/2021	Red Non-Fibrous Homogenous	PLM 2% Cellulose	PLM 98% Other	PLM None Detected
1224102 2b Int Garage Analyst: Dawson Date Analyzed :	Floor Concrete Bradley 05/28/2021	Red Non-Fibrous Homogenous	PLM 2% Cellulose	PLM 98% Other	PLM None Detected
1224103 2c Int Garage Analyst: Dawson Date Analyzed:	Floor Concrete Bradley 05/28/2021	Red Non-Fibrous Homogenous	PLM 2% Cellulose	PLM 98% Other	PLM None Detected



Certificate of Analysis

Polarized Light Microscopy Asbestos Analysis Report

To: Environmental Testing And Consulting Inc.

38900 Huron River Drive

Romulus, MI 48174

Location: Vacant Single Family Residence

15655 Bak Rd, Belleville, MI 48111

ETC Job: 238030

Client Project: 238030

Date Collected: 05/24/2021

Date Received: 05/25/2021

Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Asbestos
1224104 3a Garage Roof Analyst: Dawson Date Analyzed :	Roofing Asphalt (Shingles) Bradley 05/28/2021	Black Non-Fibrous Homogenous	PLM 4% Cellulose	PLM 96% Other	PLM None Detected
1224105 3b Garage Roof Analyst: Dawson Date Analyzed :	Roofing Asphalt (Shingles) Bradley 05/28/2021	Black Non-Fibrous Homogenous	PLM 4% Cellulose	PLM 96% Other	PLM None Detected
1224106 3c Garage Roof Analyst: Dawson Date Analyzed :	Roofing Asphalt (Shingles) Bradley 05/28/2021	Black Non-Fibrous Homogenous	PLM 4% Cellulose	PLM 96% Other	PLM None Detected
1224107 4a Garage Roof Analyst: Dawson Date Analyzed :	Roofing Vapor Barrier Bradley 05/28/2021	Black Fibrous Homogenous	PLM 80% Cellulose	PLM 20% Other	PLM None Detected
1224108 4b Garage Roof Analyst: Dawson Date Analyzed :	Roofing Vapor Barrier Bradley 05/28/2021	Black Fibrous Homogenous	PLM 80% Cellulose	PLM 20% Other	PLM None Detected
1224109 4c Garage Roof Analyst: Dawson Date Analyzed :	Roofing Vapor Barrier Bradley 05/28/2021	Black Fibrous Homogenous	PLM 80% Cellulose	PLM 20% Other	PLM None Detected



Certificate of Analysis

Environmental Testing Laboratories, Inc. 37575 W Huron River Drive Romulus, Michigan 48174 (734) 955-6600, Fax: (734) 955-6604

Polarized Light Microscopy Asbestos Analysis Report

Appearance

To: Environmental Testing And Consulting Inc.

ETC Job: 238030

38900 Huron River Drive

Client Project: 238030

Date Collected: 05/24/2021

Romulus, MI 48174

Date Received: 05/25/2021

Description

% Fibrous

Location: Vacant Single Family Residence

15655 Bak Rd, Belleville, MI 48111

% Non-Fibrous % Asbestos

Iam mocustes

Sample

Analyst:

Lab Supervisor/Other Signatory

Dawson Bradley

Dun Bendey

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 A % Asbestos result of "Trace" indicates that the analyzed material was found to contain less than 1% asbestos and would not be considered an Asbestos Containing Material (ACM).

Chain of Custody

ETL

37575 W. Huron River Drive, Romulus, MI 48174 Phone: (734) 955-6600 Fax: (734) 992-2261 www.2etl.com

Client: Van Buren Township

Client Address 46425 Tyler Road, Van Buren Township, MI 48111

Inspector: Andrew Hildebrandt

Client Project#: 238030

Phone: 734 955 6600

ETL Project#: 238030

Turn Around: Standard

Project Address: 15655 Bak Rd, Belleville, MI 48111

Special Instructions: Stop at 1st Positive;400 Point Count all <5%

Date Collected: 05/24/21

Date Submitted: 05/25/21

Relinquished By: Andrew Hildebrandt

Lab ID	Client ID	Sample Description	Sample Location
1224098	1a	Insulation Blown-in	Int Garage
1224099	1b	Insulation Blown-in	Int Garage
1224100	1c	Insulation Blown-in	Int Garage
1224101	2a	Floor Concrete	Int Garage
1224102	2b	Floor Concrete	Int Garage
1224103	2c	Floor Concrete	Int Garage
1224104	3a	Roofing Asphalt (Shingles)	Garage Roof
1224105	3b	Roofing Asphalt (Shingles)	Garage Roof
1224106	3c	Roofing Asphalt (Shingles)	Garage Roof
1224107	4a	Roofing Vapor Barrier	Garage Roof
1224108	4b	Roofing Vapor Barrier	Garage Roof
1224109	4c	Roofing Vapor Barrier	Garage Roof

Received: Rovena Separtho 5-25-21 Anotheris : D. B. S128121

Sample Materials for:

Vacant Single Family Residence

15655 Bak Rd, Belleville, MI 48111

ld	Friable	Description	Size	Color	Location	Quantity	Units	Type	Assumed
1	F	Insulation Blown-in		Brown	Int. Garage	1500	SF	М	-
2	Cat 2-NF	Floor Concrete		red	Int. Garage	1500	SF	М	
3	Cat 1-NF	Roofing Asphalt (Shingles)		Black	Ext. Garage	1800	SF	М	
4	Cat 2-NF	Roofing Vapor Barrier		Black	Ext. Garage	1800	SF	М	C CLASSICAL CONTRACTOR OF CONT

United States Department of Commerce National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 201028-0

Environmental Testing Laboratories, Inc.

Romulus, MI

is accredited by the National Voluntary Laboratory Accreditation Program for specific services, listed on the Scope of Accreditation, for:

Asbestos Fiber Analysis

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).

2021-04-01 through 2022-03-31

Effective Dates



For the National Voluntary Laboratory Accreditation Program