

May 9, 2016
RFP 16- HHFDEMO2-2016
Request for Qualifications and Cost Proposal
Deconstruction and Demolition Services
Muskegon County Land Bank / City of Muskegon Heights

Bidder's Name: _____

Address: _____

Telephone Number: _____

E-Mail: _____

The Muskegon County Land Bank / City of Muskegon Heights invites all interested companies and individuals to submit qualifications and a cost proposal for the Neighborhood Stabilization Program. A set of conditions and specifications I requirements are enclosed.

Sealed proposals clearly marked with “**RFP 16- HHFDEMO2-2016**” will be accepted at the **Muskegon County Land Bank**, 173 East Apple Avenue, Suite 104. Muskegon, Michigan 49442 until 3:00 p.m. May 18, 2016.

No Late Bids will be accepted

Document published by
Christopher J. Dean Fire Chief
City of Muskegon Heights

This project is funded totally or in part through the Michigan Hardest Hit Fund.

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Project Purpose

The Muskegon County Land Bank / City of Muskegon Heights is accepting qualifications and cost proposal for the site demolition and removal of 17 residential structures located in Muskegon Heights, MI 49444

Bid Packet

Bid packets will be available starting May 9, 2016. The completed bid packet must be returned to the **Muskegon County Land Bank**, 173 East Apple Avenue, Suite 104. Muskegon, Michigan 49442 until 3:00 p.m. May 18, 2016.

Bid documents may be obtained at www.cityofmuskegoheights.org or the Builders Exchange of Michigan. A pre-bid voluntary conference will be held on May 13 2016, from 1:00PM to 1:30PM at Muskegon Heights, City Hall, Council Chambers (2715 Baker, Muskegon Heights, MI). Inquiries can be made by the following means: Phone 231-724-6170 Timothy Burgess or via email at BurgessTi@co.muskegon.mi.us

No late bids will be accepted. The Muskegon County Land Bank / City of Muskegon Heights reserves the right to accept or reject any or all bids and reserves the right to waiver formalities and to take such actions as it deems necessary in the best interest of Muskegon County Land Bank / City of Muskegon Heights. Both the Muskegon County Land Bank / City of Muskegon Heights operates on an equal opportunity / affirmative action basis in its bidding policy (Title VII of the Civil Rights Act of 1964, Equal Opportunity Clause, Executive Order 11246, Chapter 60, Subpart A. 60-1.4, Revised Order No. 4)

Christopher J. Dean Fire Chief

Publish: May 09, 2016

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Section I.
Bid Certification
(Page 1 of Bid Document)

I certify that this bid is made without prior understanding, agreement or connection with any corporation, firm or person submitting a bid for the same materials, supplies, equipment or service, that it meets or exceeds all specifications contained herein, and is in all respects fair and without collusion or fraud. I understand collusive bidding is a violation of state and federal law and can result in fines, prison sentence and civil damage awards. I agree to abide by all conditions of this bid, all specifications as stated, and certify that I am authorized to sign for the bidder.

Bidder: _____

Street Address: _____

City/State/Zip Code _____

Phone Number: _____

FAX: _____

E- Mail: _____

Signature: _____

Title: _____

Date Certified: _____

Bid Breakdown

Asbestos Abatement Total: _____

Demolition Total: _____

Disposal Total: _____

Fill: _____

Landscaping Total: _____

Total Bid Amount: _____

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CONFLICT OF INTEREST DISCLOSURE FORM

(Page 2 of Bid Document)

For purposes of determining any possible conflict of interest, all bidders/proposers, must disclose if any City of Muskegon Heights or County of Muskegon employee(s), elected officials(s), of if any of its agencies is also an owner, corporate officer, agency, employee, etc., of their business.

Indicate either "yes" (a city employee or county, elected official, or employee is also associated with your business), or "no". If yes, give person(s) name(s) and position(s) with your business.

YES _____

NO _____

NAME(S)

POSITION(S)

FIRM NAME: _____

BY (PRINTED): _____

BY (SIGNATURE): _____

TITLE: _____

ADDRESS: _____

PHONE NO. _____

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**CERTIFICATION REGARDING DEBARMENT, SUSPENSION,
INELIGIBILITY AND VOLUNTARY EXCLUSION**
(Page 3 of Bid Document)

This certification is required by the regulations implementing Executive Order 12549, Debarment and Suspension, 13 CFR Part 145. The regulations were published as Part VII of the May 26, 1988 *Federal Register* (pages 19160-19211).

Bidder certifies to the best of its knowledge and belief, that it and its principals:

(a) Are are not presently debarred, suspended, proposed for debarment, declared ineligible, or voluntarily excluded from covered transactions by any Federal department or agency;

(b) Have have not within a three-year period preceding award of this bid been convicted of or had a civil judgment rendered against them for commission of fraud or a criminal offense in connection with obtaining, attempting to obtain, or performing a public (Federal, State or Local) transaction or contract under a public transaction; violation of Federal or State antitrust statutes or commission of embezzlement, theft, forgery, bribery, falsification or destruction of records, making false statements, or receiving stolen property;

(c) Are are not presently indicted for or otherwise criminally charged by a governmental entity (Federal, State or Local) with commission of any of the offenses enumerated in paragraph (b) above; and

(d) Have have not within a three-year period preceding bid had one or more public transactions (Federal, State or Local) terminated for cause or default.

Bidder Signature

Date

Typed or Printed

Company Name

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A. General Bid Conditions/Instruction to Bid

These conditions are an integral part of this bid, and as such, the bidder must comply with them.

1. The prospective bidder must use Local Governmental Units bid documents.
2. Alternatives must be placed on a separate sheet of paper.

B. Federal and State Regulation Compliance

1. In accordance with the Housing and Urban Development Act of 1968, as amended (12USC1701 u) and stated in the City of Muskegon Heights, Section 3 Employment Plan 10% of the grant dollars/ contract will be used to directly employ Muskegon Heights residents or businesses in the deconstruction or demolition of buildings funded under this program.
2. At the time of the solicitation, the Prime Demolition Contractor must identify and enter into a partnership with a deconstruction company for the purpose of providing services for this contract. The Prime Demolition Contractor will be responsible for the deconstruction activities on the site. The deconstruction company will be employed and the responsibility of the Prime Demolition Contractor.

C. Project Submission Schedule

The payment time or closing dates, as stated in the bid form, shall be required to deliver and complete items after the receipt of the award. Where multiple items appear on a bid request, the bidder shall, unless otherwise stated by the City, show the closing time in each item separately. The payment schedule must be included in and restated in each bid and adhered to as the following:

- | | |
|---|------------------|
| 1. Request for Qualifications and Cost Proposal Available to the Public | May 9, 2016 |
| 2. Pre-bid Meeting | May 13, 2016 |
| 3. Submission of Request for Qualifications and Cost Proposal Due | May 18, 2016 |
| 4. Bid Awarded by the Muskegon County Land Bank | Apx May 23, 2016 |
| 5. Work commence by | June 3, 2016 |
| 6. Demolition Completed | July 1, 2016 |

If there are any questions concerning the specifications contained in this bid request please contact Timothy Burgess phone 231-724-6170 or via email at BurgessTi@co.muskegon.mi.us

The Muskegon County Land Bank / City of Muskegon Heights reserves the right to accept or reject any and all bid requests, all rights granted to it by law, the right to waiver formalities and take such action as it deems necessary in the best interest of the Muskegon County Land Bank / City of Muskegon Heights.

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D. Bidder/Offeror Representation

1. Each bidder / offer must sign the bid with his or her signature and shall give his or her full business address on the form provided in this bid.
2. The County of Muskegon and the City of Muskegon Heights operates on an equal opportunity / affirmative action basis in its bidding policy (Title VII of the Civil Rights Act of 1964. Equal Opportunity Clause, Executive Order 11246, Chapter 60, Subpart A, 60-1.4, Revised Order No 4.) Bidding is open to all interested parties, in compliance with national, state and local laws.
3. This award will be made to that responsible bidder whose bid conforms to this solicitation, and will be most advantageous to the County and City in price and number of items purchased.

E. Bid / Offer Qualifications

1. Debit to City or County: No bid shall be accepted and no contract will be awarded to any person, firm or corporation that is in arrears to the City or County, upon debt or contract that is a defaulter as surety or otherwise, upon any obligation to the City or County, or that is deemed irresponsible or unreliable by the City or County. If requested, bidder/offer shall be required to submit satisfactory evidence that they have a practical knowledge of the particular sale/supply/service bid and that they have the necessary financial resources to provide the proposed supply/service as described in the specifications.
2. Experience: All contractors have a minimum of five (5) years of proven experience providing professional licensed demolition services or similar scope/scale. Failure to provide documented experience may result in disqualification from bid process.

F. Vendor /Bidder Complaints or Protests

The Muskegon County Land Bank / City of Muskegon Heights have established administrative procedures for handling bidder complaints in a fair and timely manner.

Step 1: Bidders should inform the Muskegon County Treasure's Office in writing within five days of the incident that he or she has a complaint. The County Treasure will investigate the complaint and make a decision concerning the matter.

Step 2: If the bidder is dissatisfied with the Muskegon County Treasure's reply, an appeal must be made in writing within seven days to the Muskegon County Board of Commissioners

G. Errors | Omissions | Discrepancies

Any errors, omissions or discrepancies in the specifications discovered by a prospective bidder shall be brought to the attention of the Muskegon County Land Bank as soon after discovery. Further, the bidder shall not be allowed to take advantage of errors, omissions or discrepancies in the specifications.

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H. Bid Submission

Prospective bidders will be expected to allow adequate time for the delivery of their bid by mail. Faxed bids will **not** be accepted.

I. Bid Awards

1. No bid award will be made at the time of the bid opening.
2. Individuals submitting bids, who wish to know the results before the award is made, may contact the Muskegon County Land Bank 5 business days following the bid opening.

J. Termination for Convenience

The Muskegon County Land Bank / City of Muskegon Heights may terminate a contract, in whole or in part, whenever the City / County Land Bank determines that such termination is in the best interest of the City / County Land Bank, without showing cause, upon given notice to the contractor.

K. Termination for Default

When the bidder/contractor has not performed or has unsatisfactorily performed the contract, the Muskegon County Land Bank may terminate the contract for default.

Bid conditions/instructions to the bidder, specifications/requirements may become part of the service contract.

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Section II
Terms and Conditions

1. Scope of Services.

The Contractor shall, perform and carry out in a satisfactory and proper manner, as determined by the Local Governmental Units, the following:

- A. Act as Prime Contract on this demolition project.
- B. Perform, partner with or subcontract all deconstruction activities if required
- C. Remove and dispose of asbestos materials in accordance with Environmental Protection Agency, Michigan Occupational Safety and Health Administration and Michigan Department of Environmental Quality regulations.
- D. Demolition and removal of all structures located on property
- E. Break up and removal of all concrete, i.e., basements, driveways, walkways, slabs, etc

2. Time and Performance.

The services of the Contractor shall commence by June 3, 2016 and shall be completed by July 1, 2016. All requests for payment along with approved completion inspection reports shall be submitted to the Muskegon County Land Bank no later than August 01, 2016. A 10% retainage will be held by the Muskegon County Land Bank until all waivers and inspections are submitted.

3. Relationship Between Parties.

The Contractor is engaged by the Local Governmental Units only for the purposes and to the extent set forth in this Contract, and his relationship the Local Governmental Units during the term of this contract shall be that of an independent contractor. The Contractor shall be free to dispose of such portion of his entire time, energy, and skill during regular business hours as he is not obligated to devote hereunder to the Local Governmental Units in such manner as he sees fit and to such persons, firms, or corporations as he deems advisable. The Contractor shall not be considered as having employee status or as being entitled to participate in any plans, arrangements, or distributions by the Local Governmental Units pertaining to or in connection with any vacation, sick leave, insurance, retirement, longevity, or similar benefits for the Local Governmental Units' regular employees.

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4. Insurance

All Prime and Subcontractors, working under this contract, must include the Local Governmental Units as co-insured and furnish evidence of comprehensive public liability general liability insurance coverage in the amount of \$1,000,000. The contractor must also comply with local laws governing the work place including Workers Compensation Insurance. Unemployment insurance is also required to participate in this project.

The Contractor shall indemnify and hold harmless the Local Governmental Units, its officers and employees from and against all claims, damages, losses and expenses, including attorney fees, arising out of or resulting from the performance of services under this Contract, provided any such claim, damage, loss or expense that is (a) attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property including the loss of use resulting there from, and (b) is caused in whole or in part by a negligent act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable regardless of whether or not it is caused in part by a party indemnified hereunder.

5. Permits and Codes

The Prime and Subcontractor shall obtain and pay for all permits and license necessary for the completion and execution of the work and labor performed. All work performed must conform to applicable local codes and requirements.

6. Assignment of Contract

The Prime and Subcontractor shall not assign this contract without the prior written consent of the Local Governmental Units.

7. Work Force

A. Project Management

The demolition contractor will act as the prime contractor for the project. He / She, herein called the prime demolition contractor, will be responsible for all activities on the demolition site.

B. Deconstruction Company

At the time of the Request for Qualification and Cost Proposal solicitation, the Prime Demolition Contractor must identify and enter into partnership with a deconstruction company, which will either be a full partner or a subcontractor for the purpose of this contract. The Prime Demolition Contractor will be responsible for deconstruction activities on the sites. The deconstruction company will be employed by and responsible to the Prime Demolition Contractor. (If applicable)

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8. Penalty for Unexcused Delays

If the work is not completed within the time stipulated in this contract, including any time for excusable delays as provided below, the Contractor and or his sureties shall be liable for and shall pay to the Local Governmental Units the sum of \$200 for each calendar day of the delay as a fixed surcharge to cover the costs of additional administration and re-inspection, commencing from the time stipulated for the completion until such work is satisfactorily completed and accepted. Any such surcharge levied shall be certified by Muskegon County Land Bank and deducted from the final payment.

The rights of the Contractor to proceed shall not be terminated nor shall the Contractor be charged with surcharge for any delays in the completion of work due to:

- a. Any acts of government, including controls or restrictions upon or requisitioning of materials, equipment, tools or labor by reason of war, national defense or other national emergency.
- b. Causes not responsible or foreseeable by the parties to this contract at the time of execution of this contract, which are beyond the control and without fault or negligence of the Contractor, such as extreme weather conditions, fires, epidemic, quarantine strikes, freight embargo, and acts of another contractor in the performance of some other contract. Note: Seasonal load and speed restrictions are not considered unforeseeable item or covered as a weather limitation.

9. Default

In the event of default by the Contractor in the observance or performance of any covenant, condition, or agreement on his part to be observed or performed under this Contract, and the continuance of such default for seven (7) days after written notice thereof by the City to the Contractor. Any notice given hereunder shall be sufficiently given if delivered to the Contractor personally or mailed to him by United States Postal Service with certified mail/ return receipt requested at the address set forth in the heading of this contract.

10. Compensation

- A. The Local Governmental Units shall pay compensation to the Contractor for his services under this contract as follows:
 1. Compensation for completion of the work shall be payable monthly upon a billing from the Contractor describing in detail the services performed by the Contractor during the preceding month.
 2. Local Governmental Units will only be billed monthly for each completed demolition that has passed city inspections.

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3. It is expressly understood and agreed that in no event will the total compensation to be paid hereunder exceed the maximum sum for all services under this Contract.

11. Michigan Law

The laws of the State of Michigan shall govern this Agreement. Any litigation regarding this Agreement or its contents shall be filed in the County of Muskegon, if in State court, or in the Federal District Court nearest to Muskegon County, if in Federal Court.

12. Terms and Conditions

The terms and conditions used in this Agreement shall be given their common and ordinary definition and will not be construed against either party.

13. Severability

If anyone or more of the provisions contained herein shall for any reason be held to be invalid, illegal or unenforceable in any respect, then such provision or provisions shall be deemed severable from the remaining provisions hereof, and such invalidity, illegality or unenforceability shall not affect any other provisions hereof, and this Agreement shall be construed as if such invalid, illegal or unenforceable provision has never been contained herein.

14. Surety/Performance Bond

Within 5 business days of being awarded the project, contractors must secure a performance bond in an amount equal to one hundred percent (100%) of the total contract amounts. Bonds must be issued by a bona fide company authorized to do business with the State of Michigan and to comply with state regulations. The contractor the performance bond is to ensure abatement of potential impacts to public health and safety resulting from demolition as well as ensure general cleanup of the demolition site.

{Blank}

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**Section IV
Work Elements**

A. Work Site / Structure Addresses

**19 Harrison
150 Harrison
214 Harrison
276 Harrison
2121 Sanford
2201 Sanford
2329 Baker
2525 Leahy
2816 Baker
2820 Baker
2824 Baker
2822 Howden
2828 Baker
2916 Baker
2921 Jefferson
3133 Jefferson
3136 Howden**

(See attached Equalizer Data including location Photo)

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B. General Statement of Work Requirements

The principal items of work consist of:

1. Remove asbestos removal and disposal as required by law.
2. Deconstruction of structure when appropriated.
3. Demolition of all structures located on the property.
4. Break up and remove all concrete, i.e., driveways, walkways, slabs, etc.
5. Remove the basement and footings.
6. Removal of lead-based paint-containing materials according to the appropriate regulations.
7. Fill basement with clean backfill with 3 inches of clean topsoil and **seed with clover**.
 - a. Clover shall be evenly applied at a rate of 5 lbs of seed per 50x100 city lot
 - b. Approved types of clover include (common name): New Zealand White Clover, Ladino Clover or Dutch White or Sweet Clover. (A 50% -50% blend of any two approved clover types is preferred)
8. Protect all trees not being removed as part of the project.
9. Remove **all** trash and debris on the work site.

C. Technical Specifications

Before commencing demolition work:

1. Execute rodent extermination procedures as specified by and to the satisfaction of the Muskegon County Health Authority.
2. Disconnect, or arrange for the disconnection of, utility service connections, such as water, sewers, steam, and telephone, to building to be demolished in accordance with the regulations of the utility concerned.
 - a. **Note:** Natural gas and electrical disconnects have be done prior to the pre-bid conference and cost should **not** be included in the bid. However the contractor is responsible for confirming service disconnections prior to commencing work.

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3. Seal storm and sanitary sewers leading from structures to be demolished. (Note: Sanitary Sewer lateral to be plugged within five (5) feet of property line.) Also, all water services to be cut at curb box and plugged. These service cut and caps must be inspected in accordance with local ordinances.
4. Preserve in operating condition active utilities traversing the project site; protect property, including but not limited to mains, manholes, catch basins, valve boxes, poles, gigs, and other appurtenances.
5. Provide adequate time for deconstruction contractors to evaluate and remove salvageable materials and equipment from the structure. (if applicable)
6. Assist when necessary the deconstruction contractor in removal of salvageable materials.

During demolition:

1. Provide adequate protection to persons and property.
2. Execute the work in such a manner as to avoid interference with the use of or passage to and from adjoining buildings and facilities.
3. Except as otherwise shown or specified, demolish structures and foundations, and remove complete steps, posts, porches, and similar construction.
4. Demolish masonry walls in small sections.
5. Remove, regardless of elevation, all floor construction over basements and cellars.
6. Remove structural steel, cast iron, and heavy timbers by individual pieces and lower carefully (if applicable).
7. Remove partitions, stairways, furnaces, piping, apparatus, and debris from within existing basements.
8. Wet down masonry thoroughly during demolition; prevent spread of dust; provide water and necessary connections therefore.
9. Do no blasting on the project site.
10. Burn no materials or debris on the premises
11. Provide substantial barricades around all basements and cellars, as soon as such openings are uncovered, adequate to block access, and to afford protection to workers and the public.
12. Leave no demolished material of any sort in any basement.

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13. Remove from the site rubbish and debris found thereon and or resulting from the work of demolition. At completion, leave the site in a safe and clean condition, free or materials or equipment.
14. It shall be the Contractor's responsibility to properly dispose of **all** demolition materials. This includes regulated materials (i.e. asbestos, mercury, lead base paint etc).
15. Properly grade soil to match existing surrounding neighborhood topography.

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Section V
Bid Submission

The following information must be included in the bid package. Any omission of the requested information may cause you to forfeit the bid.

- Page 1: Bid certification
- Page 2: Conflict of interest disclosure form
- Page 3: Certification regarding debarment and suspension
- Page 4: Copy of deconstruction and or residential demolition license
- Page 5: Proof of comprehensive liability insurance
- Page 6: Total cost proposal for deconstruction and demolition of 36 units.
- Page 8: **Per location itemization of the bid**
- Page 7: Identification of asbestos abatement subcontractor (if not the same as the demolition company).
- Page 8: Copies of asbestos abatement contractor license(s).
- Pages 9+ Business History/ Experience in Deconstruction and Demolition. Project list references, with contact person's name and telephone numbers. ** Evidence of a minimum of five (5) years of proven experience providing professional licensed demolition services or similar scope/scale must be provided in this section.

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
WILLIAMS TYRONE	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/62	DEED	0.0			
MUSKEGON COUNTY TREASURER	WILLIAMS TYRONE	700	10/13/2011	QC	QUIT- CLAIM	3892/820	DEED	100.0			
STATE MANAGEMENT INC	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/834	DEED	0.0			
THOMPSON LAND MANAGEMENT &	STATE MANAGEMENT INC	0	03/08/2004	QC	QUIT-CLAIM	3592/85	DEED	0.0			
Property Address		Class: 703.EXEMPT COUNTY		Zoning:	Building Permit(s)	Date	Number	Status			
19 HARRISON BLVD		School: MUSKEGON HEIGHTS SCHOOLS				07/17/2000	B-219-00				
Owner's Name/Address		P.R.E. 0%									
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-275-090									
Tax Description		2016 Est TCV 0 TCV/TFA: 0.00									
HT4419 BLK 275 LOT 9 MUSKEGON IMPROVEMENT CO'S ANNEX #1		X Improved		Vacant	Land Value Estimates for Land Table 00008.DK. BLUE						
Comments/Influences		Public Improvements		* Factors *							
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NEIGHBORHOOD 8	40.00	125.00	1.0000	1.0000	50	100	2,000
		X Paved Road		40 Actual Front Feet, 0.12 Total Acres				Total Est. Land Value =		2,000	
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		X Street Lights									
		X Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2014	1,000	2,200	3,200			3,200S	
		Landscaped		2013	1,000	2,200	3,200			3,200S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who When What									
		RLJ 12/31/1992 REVIEWED									
		CED 07/01/2001 REVIEWED									



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage		
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	
X	Wood Frame	X	Drywall Paneled				Plaster Wood T&G										
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling													
Yr Built 1945	Remodeled 0	Ex	X	Ord		Min											
Condition for Age: Average		Lg	X	Ord		Small											
Room List		(5) Floors		Central Air Wood Furnace													
	Basement 2 1st Floor 2nd Floor 2 Bedrooms	Kitchen: Softwood Other: Carpeted Other: Tile		(12) Electric 100 Amps Service													
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Stories Exterior			Foundation			Rate	Bsmnt-Adj	Heat-Adj	Size	Cost
X	Wood/Shingle Aluminum/Vinyl Brick	X	Drywall		Ex.	X	Ord.		Min	1	Story Siding	Crawl Space	63.46	-10.81	0.66	400	21,324
	Insulation			No. of Elec. Outlets						Other Additions/Adjustments			Rate		Size		Cost
(2) Windows		(7) Excavation		(13) Plumbing			(14) Water/Sewer										
X	Many Avg. Few	X	Large Avg. Small	Basement: 0 S.F. Crawl: 400 S.F. Slab: 0 S.F. Height to Joists: 0.0			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water Public Sewer Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/ ECF (DK. BLUE)			912.00			1	912
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor											50/100/22.5,	Depr.Cost =			7,135
(3) Roof		(9) Basement Finish		(14) Water/Sewer									0.445 => TCV of Bldg:		1	=	3,175
X	Gable Hip Flat		Gambrel Mansard Shed	Recreation SF Living SF Walkout Doors No Floor SF			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic										
X	Asphalt Shingle	(10) Floor Support		Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:										
Chimney: Brick																	

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
WILLIAMS TYRONE	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/57	DEED	0.0
MUSKEGON COUNTY TREASURER	WILIAMS TYRONE	900	10/13/2011	QC	QUIT- CLAIM	3892/812	DEED	100.0
REDDER MARSHALL	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/824	DEED	0.0
FIFTH THIRD BANK	REDDER MARSHALL	9,127	10/13/2004	WD	WARRANTY DEED	3624/872	DEED	100.0
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES	Building Permit(s)	Date	Number	Status
150 HARRISON BLVD		School: MUSKEGON HEIGHTS SCHOOLS						
Owner's Name/Address		P.R.E. 0%						
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-262-150		2016 Est TCV 0 TCV/TFA: 0.00				
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00008.DK. BLUE		
HT4141 BLK 262 LOT 15 MUSKEGON IMPROVEMENT CO'S ANNEX #1		Public Improvements		* Factors *			Value	
Comments/Influences		X Dirt Road		NEIGHBORHOOD 8			2,000	
CONDEMNED: 9/20/2011		X Gravel Road		40 Actual Front Feet, 0.12 Total Acres			2,000	
		X Paved Road						
		X Storm Sewer						
		X Sidewalk						
		X Water						
		X Sewer						
		X Electric						
		X Gas						
		X Curb						
		X Street Lights						
		Standard Utilities						
		Underground Utils.						
		Topography of Site						
		X Level						
		Rolling						
		Low						
		High						
		Landscaped						
		Swamp						
		Wooded						
		Pond						
		Waterfront						
		Ravine						
		Wetland						
		Flood Plain						
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
Who		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
When		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
What		2014	1,000	6,800	7,800			7,800S
CEJ 11/30/1997 REVIEWED		2013	1,000	7,000	8,000			8,000S



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 60 192	Type WGEP (1 Story) Treated Wood	Year Built: Car Capacity: Class: C Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 240 % Good: 0 Storage Area: 0 No Conc. Floor: 0
X	Wood Frame		Drywall Paneled				Plaster Wood T&G									
Building Style: 1+ STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling												
Yr Built 1925	Remodeled 0	Ex	X	Ord		Min	Size of Closets		Lg		X	Ord		Small	Doors: Solid X H.C.	
Condition for Age: Average		(5) Floors		Central Air Wood Furnace												
Room List		Kitchen: Other: Other:		(12) Electric			100 Amps Service									
	Basement 1st Floor 2nd Floor Bedrooms	(6) Ceilings		No./Qual. of Fixtures												
(1) Exterior		Ex.	X	Ord.		Min	No. of Elec. Outlets									
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan												
	Insulation	Basement: 884 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing												
(2) Windows		(8) Basement		(14) Water/Sewer												
X	Many Avg. Few	X	Large Avg. Small	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor												
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF												
(3) Roof		(10) Floor Support		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic												
X	Gable Hip Flat		Gambrel Mansard Shed	Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:									
X	Asphalt Shingle															
Chimney: Brick																

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.							
HARRIS VERNON/DOROTHY	COUNTY OF MUSKEGON TREASURER	0	04/01/2013	QC	FORECLOSURE	3950/211	DEED	0.0							
MUSKEGON COUNTY TREASURER	HARRIS VERNON/DOROTHY	100	10/04/2010	QC	QUIT-CLAIM	3860/634	DEED	100.0							
HUIZENGA JEFFERY A	MUSKEGON COUNTY TREASURER	0	04/02/2010	CD	ASSIGNMENT	3846/197	DEED	0.0							
SMITH JEFFREY A	HUIZENGA JEFFERY A	0	02/29/2008	QC	QUIT-CLAIM	3776/80	DEED	100.0							
Property Address		Class: 703.EXEMPT COUNTY		Zoning:		Building Permit(s)		Date	Number	Status					
214 HARRISON BLVD		School: MUSKEGON HEIGHTS SCHOOLS													
Owner's Name/Address		P.R.E. 0%													
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-256-150		2016 Est TCV 0 TCV/TFA: 0.00											
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00007. SKY BLUE									
HT4004 BLK 256 LOT 15 MUSKEGON IMPROVEMENT CO'S ANNEX #1		Public Improvements		* Factors *											
Comments/Influences		X Dirt Road		Description		Frontage		Depth		Front Depth		Rate %Adj. Reason		Value	
CONDEMNED: 10/06		X Gravel Road		NEIGHBORHOOD #7		40.00		125.00		1.0000		1.0000		70 100	
		X Paved Road		40 Actual Front Feet, 0.12 Total Acres		Total Est. Land Value =								2,800	
		X Storm Sewer													
		X Sidewalk													
		X Water													
		X Sewer													
		X Electric													
		X Gas													
		X Curb													
		X Street Lights													
		X Standard Utilities													
		Underground Utils.													
		Topography of Site													
		X Level													
		Rolling													
		Low													
		High													
		Landscaped													
		Swamp													
		Wooded													
		Pond													
		Waterfront													
		Ravine													
		Wetland													
		Flood Plain													
		Year		Land Value		Building Value		Assessed Value		Board of Review		Tribunal/Other		Taxable Value	
Who		When		What		2016		EXEMPT		EXEMPT		EXEMPT		EXEMPT	
CEJ 12/31/1992		REVIEWED				2015		EXEMPT		EXEMPT		EXEMPT		EXEMPT	
						2014		0		0		0		0	
						2013		1,400		7,200		8,600		8,600S	



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage					
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: 1915 Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 20 Mech. Doors: 0 Area: 216 % Good: 0 Storage Area: 0 No Conc. Floor: 0				
X	Wood Frame		Drywall Paneled				Plaster Wood T&G													
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling																
Yr Built 1915	Remodeled 0	Ex	X	Ord		Min	Size of Closets		Lg		X	Ord		Small						
Condition for Age: Average		Doors:		Solid	X	H.C.														
Room List		(5) Floors		Central Air Wood Furnace																
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(12) Electric			100 Amps Service													
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Stories Exterior			Foundation			Rate		Bsmnt-Adj Heat-Adj		Size Cost			
X	Wood/Shingle Aluminum/Vinyl Brick				Ex.	X	Ord.		Min	1	Story Siding	Basement	63.90	0.00	0.00	414	26,455			
	Insulation			No. of Elec. Outlets			Many			X	Ave.		Few							
(2) Windows		(7) Excavation		(13) Plumbing			Average Fixture(s)			(14) Water/Sewer										
X	Many Avg. Few	X	Large Avg. Small	Basement: 414 S.F. Crawl: 306 S.F. Slab: 0 S.F. Height to Joists: 0.0			1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water Public Sewer			1025.00 1025.00		1 1		1,025 1,025			
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(8) Basement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			17) Garages			Class:CD Exterior: Siding Foundation: 18 Inch (Unfinished)			Base Cost Automatic Doors		24.80 375.00		216 20		5,357 7,500	
(3) Roof		(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			(14) Water/Sewer			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 75/33.8, Depr.Cost =							26,813			
X	Gable Hip Flat		Gambrel Mansard Shed	(10) Floor Support			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Economic Depreciation because of: OBSERVATION ECF (SKY BLUE)			0.445 => TCV of Bldg: 1 =				11,932			
X	Asphalt Shingle			Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:													
Chimney: Brick																				

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.						
MARSHALL TYNETTA	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/55	DEED	0.0						
MUSKEGON COUNTY TREASURER	MARSHALL TYNETTA	300	10/13/2011	QC	QUIT- CLAIM	3893/486	DEED	100.0						
HOFFMEYER TONY	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/815	DEED	0.0						
RED OAK CAPITAL LLC	HOFFMEYER TONY	2,000	03/13/2009	QC	QUIT-CLAIM	3815/304	DEED	100.0						
Property Address		Class: 703.EXEMPT COUNTY		Zoning:		Building Permit(s)		Date	Number	Status				
276 HARRISON BLVD		School: MUSKEGON HEIGHTS SCHOOLS												
Owner's Name/Address		P.R.E. 0%												
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-253-210		2016 Est TCV 0 TCV/TFA: 0.00										
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00007. SKY BLUE								
HT3928 BLK 253 LOT 21 MUSKEGON IMPROVEMENT CO'S ANNEX #1		Public Improvements		* Factors *										
Comments/Influences		Dirt Road		NEIGHBORHOOD #7		40.00 125.00		1.0000 1.0000		70 100	2,800			
		Gravel Road		40 Actual Front Feet, 0.12 Total Acres Total Est. Land Value = 2,800										
		X Paved Road		Land Improvement Cost Estimates										
		X Storm Sewer		Description		Rate CountyMult.		Size %Good		Cash Value				
		X Sidewalk		Shed: Wood Frame		8.16 1.37		264 94		2,775				
		X Water		Total Estimated Land Improvements True Cash Value = 2,775										
		X Sewer												
		X Electric												
		X Gas												
		X Curb												
		X Street Lights												
		X Standard Utilities												
		Underground Utils.												
		Topography of Site												
		X Level												
		Rolling												
		Low												
		High												
		Landscaped												
		Swamp												
		Wooded												
		Pond												
		Waterfront												
		Ravine												
		Wetland												
		Flood Plain												
		Who		When		What		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
		CEJ 12/31/1992		REVIEWED		2016	EXEMPT	EXEMPT	EXEMPT					EXEMPT
		ROB 07/11/2012		REVIEWED		2015	EXEMPT	EXEMPT	EXEMPT					EXEMPT
						2014	1,400	8,300	9,700					9,700S
						2013	1,400	8,500	9,900					9,900S



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:
X	Wood Frame		Drywall Paneled		Plaster Wood T&G		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling									
Building Style: 1 STY		Trim & Decoration		Central Air Wood Furnace			(12) Electric			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj			CnlyMult		Bsmnt Garage:	
Yr Built 1953	Remodeled 0	Ex	X	Ord		Min	100 Amps Service			Total Base Cost: 39,959			X	1.370		
Condition for Age: Average		Lg	X	Ord		Small	No./Qual. of Fixtures			Other Additions/Adjustments			Rate		Size Cost	
Room List		(5) Floors		Kitchen: Other: Other:			Ex. X Ord. Min			Rate			Heat-Adj		Size Cost	
	Basement 1st Floor 2nd Floor Bedrooms	(6) Ceilings		No. of Elec. Outlets			Many X Ave. Few			Rate			Heat-Adj		Size Cost	
(1) Exterior		(7) Excavation		Basement: 616 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			(13) Plumbing			Rate			Heat-Adj		Size Cost	
X	Wood/Shingle Aluminum/Vinyl Brick	(8) Basement		Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(14) Water/Sewer			Rate			Heat-Adj		Size Cost	
	Insulation	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Rate			Heat-Adj		Size Cost	
(2) Windows	Many Avg. Few	X	Large Avg. Small	Lump Sum Items:						Rate			Heat-Adj		Size Cost	
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(10) Floor Support								Rate			Heat-Adj		Size Cost	
(3) Roof	X	Gable Hip Flat	Gambrel Mansard Shed							Rate			Heat-Adj		Size Cost	
	X	Asphalt Shingle								Rate			Heat-Adj		Size Cost	
Chimney: Brick										Rate			Heat-Adj		Size Cost	

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
CITY OF MUSKEGON HEIGHTS	MUSKEGON COUNTY LAND BANK	0	08/10/2015	QC	QUIT- CLAIM	4063/143	DEED	0.0
MUSKEGON COUNTY TREASURER	CITY OF MUSKEGON HEIGHTS	0	12/01/2009	QC	ASSIGNMENT	3831/191	DEED	0.0
HOME AMERICAN CREDIT INC	MUSKEGON COUNTY TREASURER	0	04/02/2009	CD	ASSIGNMENT	3808/456	DEED	0.0
SHERIFF DEED	UPLAND MORTGAGE	55,331	01/07/2005	PR	FORECLOSURE	3636/367	DEED	0.0

Property Address	Class: 701.EXEMPT FEDERAL	Zoning:	Building Permit(s)	Date	Number	Status																																																																																																																														
2121 SANFORD ST																																																																																																																																				
School: MUSKEGON HEIGHTS SCHOOLS																																																																																																																																				
P.R.E. 0%																																																																																																																																				
MAP #: 26-000-052-060																																																																																																																																				
2016 Est TCV 0 TCV/TFA: 0.00																																																																																																																																				
<table border="1"> <thead> <tr> <th>X</th> <th>Improved</th> <th>Vacant</th> <th colspan="4">Land Value Estimates for Land Table 00013.ORANGE</th> </tr> </thead> <tbody> <tr> <td></td> <td>Public Improvements</td> <td></td> <td colspan="4">* Factors *</td> </tr> <tr> <td></td> <td></td> <td></td> <td>Description</td> <td>Frontage</td> <td>Depth</td> <td>Front Depth</td> <td>Rate %Adj.</td> <td>Reason</td> <td>Value</td> </tr> <tr> <td></td> <td></td> <td></td> <td>NEIGHBORHOOD</td> <td>13</td> <td>50.00</td> <td>125.00</td> <td>1.0000</td> <td>1.0000</td> <td>80 100</td> <td>4,000</td> </tr> <tr> <td></td> <td></td> <td></td> <td colspan="7">50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 4,000</td> </tr> </tbody> </table>							X	Improved	Vacant	Land Value Estimates for Land Table 00013.ORANGE					Public Improvements		* Factors *							Description	Frontage	Depth	Front Depth	Rate %Adj.	Reason	Value				NEIGHBORHOOD	13	50.00	125.00	1.0000	1.0000	80 100	4,000				50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 4,000																																																																																							
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HT0265 BLK 52 LOT 6	X	Dirt Road																																																																																																																																		
Comments/Influences	X	Gravel Road																																																																																																																																		
CONDEMNED BY INSPECTIONS DEPT 6/05	X	Paved Road																																																																																																																																		
	X	Storm Sewer																																																																																																																																		
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			2014	0	0	0			0																																																																																																																											
			2013	0	0	0			0																																																																																																																											

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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage					
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 168	Type CCP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:					
X	Wood Frame		Drywall Paneled				Plaster Wood T&G														
Building Style: 1 3/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling																	
Yr Built 1911	Remodeled 0	Ex	X	Ord		Min															
Condition for Age: Average		Lg	X	Ord		Small															
Room List		(5) Floors		Central Air Wood Furnace																	
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(12) Electric																	
				100 Amps Service																	
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Stories Exterior			Foundation Rate			Bsmnt-Adj Heat-Adj			Size Cost					
					Ex.	X	Ord.		Min	1.75	Story Siding	Basement	101.72	0.00	0.00	576	58,591				
X	Wood/Shingle Aluminum/Vinyl Brick			No. of Elec. Outlets			1			1			Story Siding			Crawl Space		70.03 -10.31 0.00		244 14,572	
	Insulation	(7) Excavation		Many			X	Ave.		Few	Other Additions/Adjustments			Rate			Size Cost				
		Basement: 576 S.F. Crawl: 244 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			Average Fixture(s)			3 Fixture Bath			2400.00			1 2,400					
(2) Windows				2 3 Fixture Bath			2 Fixture Bath			Public Water			1162.00			1 1,162					
X	Many Avg. Few	X	Large Avg. Small	Softener, Auto			Softener, Manual			Public Sewer			1162.00			1 1,162					
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(8) Basement		Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(14) Water/Sewer			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 75/33.8,			23.95			168 4,024					
		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(9) Basement Finish			Recreation SF Living SF Walkout Doors No Floor SF			ECF (ORANGE)			0.600 => TCV of Bldg: 1 =			37,873 22,724					
(3) Roof		(10) Floor Support		1 Public Water			1 Public Sewer														
X	Gable Hip Flat		Gambrel Mansard Shed	Joists: Unsupported Len: Cntr.Sup:			Water Well 1000 Gal Septic 2000 Gal Septic														
X	Asphalt Shingle			Lump Sum Items:																	
Chimney: Brick																					

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.				
SPEARS CRAIG	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/149	DEED	0.0				
ELLIOTT GEORGE II	SPEARS CRAIG	0	01/26/2012	TA	TRANSFER AFFIDAVIT		DEED	100.0				
MUSKEGON COUNTY TREASURER	ELLIOTT GEORGE II	100	09/20/2011	QC	QUIT- CLAIM	3895/762	AFFIDAVIT	100.0				
WRIGHT VANESSA/GEORGE	MUSKEGON COUNTY TREASURER	0	04/01/2011		COURT ORDER	3880/605	DEED	0.0				
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES	Building Permit(s)		Date	Number	Status			
2201 SANFORD ST		School: MUSKEGON HEIGHTS SCHOOLS					10/09/2003	B-307-03				
Owner's Name/Address		P.R.E. 0%					11/08/2001	B-366-01				
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-072-010					04/15/1999	B-95-99				
Tax Description		2016 Est TCV 0 TCV/TFA: 0.00		Land Value Estimates for Land Table 00013.ORANGE								
HT0549 BLK 72 LOT 1		X Improved		Vacant		* Factors *						
Comments/Influences		Public Improvements		Description		Frontage	Depth	Front	Depth	Rate %Adj. Reason	Value	
		Dirt Road		NEIGHBORHOOD		13	50.00	125.00	1.0000	1.0000	80 100	4,000
		Gravel Road		50 Actual Front Feet, 0.14 Total Acres						Total Est. Land Value =	4,000	
		X Paved Road										
		X Storm Sewer										
		X Sidewalk										
		X Water										
		X Sewer										
		X Electric										
		X Gas										
		X Curb										
		X Street Lights										
		Standard Utilities										
		Underground Utils.										
		Topography of Site										
		X Level										
		Rolling										
		Low										
		High										
		Landscaped										
		Swamp										
		Wooded										
		Pond										
		Waterfront										
		Ravine										
		Wetland										
		Flood Plain										
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value				
Who		When	What	2016	EXEMPT	EXEMPT	EXEMPT	EXEMPT				
RJ 01/05/1999		REVIEWED		2015	EXEMPT	EXEMPT	EXEMPT	EXEMPT				
RJ 01/05/1999		DATA ENTER		2014	2,000	12,200	14,200	14,200S				
				2013	2,000	12,600	14,600	14,600S				



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage							
X	Single Family Mobile Home Town Home Duplex A-Frame	X	Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided 1 Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:							
			(4) Interior	X	Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling								504	WGEP (1 Story)									
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G																		
Building Style: 1 3/4 STY		Trim & Decoration		Central Air Wood Furnace			(12) Electric			Foundation			Rate			Bsmnt-Adj		Heat-Adj		Size		Cost	
Yr Built	Remodeled	Ex	X	Ord		Min	No./Qual. of Fixtures			Stories	Exterior	Foundation	Rate	Bsmnt-Adj	Heat-Adj	Size	Cost						
1925	0						100 Amps Service			1.75	Story Siding	Basement	79.61	0.00	0.00	1368	108,906						
Condition for Age: Average		Lg	X	Ord		Small	(13) Plumbing			1	Story Siding	Slab	55.73	-9.61	0.00	48	2,214						
Room List		Doors:		Solid	X	H.C.	Average Fixture(s)			1	Story Siding	Overhang	31.64	0.00	0.00	48	1,519						
Basement 1st Floor 2nd Floor 4 Bedrooms		Kitchen: Vinyl Other: Carpeted Other:					2 Fixture Bath			Other Additions/Adjustments			Rate			Size		Cost					
(1) Exterior		X	Plaster				1 3 Fixture Bath			(14) Water/Sewer			1325.00			1		1,325					
X	Wood/Shingle Aluminum/Vinyl Brick						1 2 Fixture Bath			Public Water			1025.00			1		1,025					
X	Insulation	Basement: 1368 S.F. Crawl: 0 S.F. Slab: 48 S.F. Height to Joists: 0.0					Softener, Auto			Public Sewer			1025.00			1		1,025					
(2) Windows		(7) Excavation					Softener, Manual			(15) Built-Ins & Fireplaces			3450.00			1		3,450					
X	Many Avg. Few	X	Large Avg. Small				Solar Water Heat			Fireplace: Exterior 1 Story													
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Conc. Block Poured Conc. Stone Treated Wood X Concrete Floor					No Plumbing Extra Toilet Extra Sink Separate Shower			(16) Porches			22.07			504		11,123					
(3) Roof		(8) Basement					Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WGEP (1 Story), Standard			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 50/22.5,			Depr.Cost =		40,254					
X	Gable Hip Flat	Recreation SF Living SF Walkout Doors No Floor SF					(14) Water/Sewer			Economic Depreciation because of: OBSERVATION			0.600 => TCv of Bldg: 1 =			24,152							
X	Asphalt Shingle	(9) Basement Finish					1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			ECF (ORANGE)													
Chimney: Brick		(10) Floor Support					Lump Sum Items:																

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
CITY OF MUSKEGON HEIGHTS	MUSKEGON COUNTY LAND BANK	0	08/10/2015	QC	QUIT- CLAIM	4063/143	DEED	0.0
MUSKEGON COUNTY TREASURER	CITY OF MUSKEGON HEIGHTS	0	12/09/2009	QC	TAX DEEDS	3831/192	DEED	0.0
AL-UQDAH AZEEZUDDIN/GLORIA	MUSKEGON COUNTY TREASURER	0	04/02/2009	CD	ASSIGNMENT	3808/471	DEED	0.0
FINN ALLAN/CANDICE	AL-UQDAH AZEEZUDDIN/GLORIA	45,000	03/26/2004	LC	LAND CONTRACT	3600/641	DEED	100.0

Property Address	Class: 701.EXEMPT FEDERAL	Zoning: R1-RES	Building Permit(s)	Date	Number	Status
2329 BAKER ST	School: MUSKEGON HEIGHTS SCHOOLS					
Owner's Name/Address	P.R.E. 0%					
MUSKEGON COUNTY LAND BANK AUTHORITY 173 E APPLE AVE STE 104 MUSKEGON MI 49442	MAP #: 26-000-096-080					
	2016 Est TCV 0 TCV/TFA: 0.00					

Tax Description	Land Value Estimates for Land Table 00001.NORTHEAST	
	Improved	Vacant
HT1099 BLK 96 LOT 8		
Comments/Influences		
WATER OFF 4/15/05. CONDEMNED 6/09		

Public Improvements	* Factors *								
	Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
X Dirt Road	NORTHEAST	50.00	125.00	1.0000	1.0000	80	100		4,000
X Gravel Road	50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 4,000								
X Paved Road									
X Storm Sewer									
X Sidewalk									
X Water									
X Sewer									
X Electric									
X Gas									
X Curb									
Street Lights									
Standard Utilities									
Underground Utils.									



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Topography of Site		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low		2014	0	0	0			0
High		2013	0	0	0			0
Landscaped								
Swamp								
Wooded								
Pond								
Waterfront								
Ravine								
Wetland								
Flood Plain								
Who When What		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
CEJ 06/30/1999 REVIEWED		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT

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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 231	Type WGEP (1 Story)	Year Built: 1970 Car Capacity: Class: CD Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished?: Auto. Doors: 0 Mech. Doors: 0 Area: 488 % Good: 20 Storage Area: 0 No Conc. Floor: 0	
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G												
Building Style: 1 1/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: CD Effec. Age: 55 Floor Area: 1215 Total Base Cost: 84,903 Total Base New : 116,318 Total Depr Cost: 12,330 Estimated T.C.V: 6,510			CntyMult X 1.370 E.C.F. X 0.528			Bsmnt Garage:	
Yr Built 1925	Remodeled 0	Size of Closets		100 Amps Service			100 Amps Service			Total Base Cost: 84,903 Total Base New : 116,318 Total Depr Cost: 12,330 Estimated T.C.V: 6,510			CntyMult X 1.370 E.C.F. X 0.528			Carport Area: Roof:	
Condition for Age: Average		Doors: Lg X Ord Small		No./Qual. of Fixtures			No./Qual. of Fixtures			Rate Bsmnt-Adj Heat-Adj			Size Cost				
Room List		(5) Floors		Ex. X Ord Min			Ex. X Ord Min			Rate Bsmnt-Adj Heat-Adj			Size Cost				
	Basement 1 1st Floor 2 2nd Floor 3 Bedrooms	Kitchen: Hardwood Other: Tile Other: Carpeted		(12) Electric			(12) Electric			Rate Bsmnt-Adj Heat-Adj			Size Cost				
(1) Exterior		(6) Ceilings		No. of Elec. Outlets			No. of Elec. Outlets			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Wood/Shingle Aluminum/Vinyl Brick			Many X Ave. Few			Many X Ave. Few			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Insulation	(7) Excavation		(13) Plumbing			(13) Plumbing			Rate Bsmnt-Adj Heat-Adj			Size Cost				
(2) Windows		Basement: 972 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		Average Fixture(s)			Average Fixture(s)			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Many Avg. Few	Large Avg. Small		1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		(14) Water/Sewer			(14) Water/Sewer			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Double Glass Patio Doors Storms & Screens	(9) Basement Finish		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Rate Bsmnt-Adj Heat-Adj			Size Cost				
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF		Lump Sum Items:			Lump Sum Items:			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Gable Hip Flat	Gambrel Mansard Shed		(10) Floor Support			(10) Floor Support			Rate Bsmnt-Adj Heat-Adj			Size Cost				
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:		Lump Sum Items:			Lump Sum Items:			Rate Bsmnt-Adj Heat-Adj			Size Cost				
Chimney: Brick										Rate Bsmnt-Adj Heat-Adj			Size Cost				

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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
BROWN MAJOR	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/88	DEED	0.0			
MUSKEGON COUNTY TREASURER	BROWN MAJOR	0	09/01/2011		AFFIDAVIT	3889/147	DEED	0.0			
BROWN MAJOR	MUSKEGON COUNTY TREASURER	0	04/01/2011	QC	QUIT- CLAIM	3880/745	DEED	0.0			
POTTS HALEY C	BROWN MAJOR	0	03/10/2010	QC	QUIT-CLAIM	3838/544	DEED	100.0			
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES	Building Permit(s)	Date	Number	Status			
2525 LEAHY ST		School: MUSKEGON HEIGHTS SCHOOLS									
Owner's Name/Address		P.R.E. 0%									
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-147-070									
Tax Description		2016 Est TCV 0 TCV/TFA: 0.00									
HT2247 BLK 147 LOT 7		X Improved		Vacant	Land Value Estimates for Land Table 00001.NORTHEAST						
Comments/Influences		Public Improvements		* Factors *				Value			
WATER/UTILITIES OFF:9/24/2013		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NORTHEAST	50.00	125.00	1.0000	1.0000	80	100	4,000
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres				Total Est. Land Value =		4,000	
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Rolling		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		Low		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT	
		High		2014	2,000	3,500	5,500			5,500S	
		Landscaped		2013	2,000	8,000	10,000			10,000S	
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Who	When	What							
		CEJ	07/30/1999	REVIEWED							
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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G								35 96	WSEP (1 Story) WCP (1 Story)			
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling													
Yr Built 1920	Remodeled 0	Ex	X	Ord		Min	Size of Closets			Class: D Effec. Age: 55 Floor Area: 815 Total Base Cost: 44,597 Total Base New : 61,098 Total Depr Cost: 12,372 Estimated T.C.V: 6,533							
Condition for Age: Average		Lg	X	Ord		Small	Central Air Wood Furnace			CntryMult X 1.370 E.C.F. X 0.528							
Room List		(5) Floors		Kitchen: Linoleum Other: Softwood Other:			(12) Electric 100 Amps Service			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj Size Cost 1 Story Siding Mich Bsmnt. 50.86 -4.45 0.66 815 38,362							
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Linoleum Other: Softwood Other:		No./Qual. of Fixtures			100 Amps Service			Other Additions/Adjustments (14) Water/Sewer Public Water Public Sewer							
(1) Exterior	X	Plaster					No. of Elec. Outlets			Rate Bsmnt-Adj Heat-Adj Size Cost 912.00 1 912 912.00 1 912							
X	Wood/Shingle Aluminum/Vinyl Brick						(7) Excavation			Rate Bsmnt-Adj Heat-Adj Size Cost 52.01 35 1,820 26.99 96 2,591							
	Insulation	Basement: 815 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 45/100/100/20.3, Depr.Cost = 12,372 ECF (NORTHEAST) 0.528 => TCV of Bldg: 1 = 6,533							
(2) Windows	Many Avg. Few	X	Large Avg. Small	(8) Basement			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan										
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens		Conc. Block Poured Conc. Stone Treated Wood X Concrete Floor	(9) Basement Finish			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan										
(3) Roof			Recreation SF Living SF Walkout Doors No Floor SF	(14) Water/Sewer			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan										
X	Gable Hip Flat		Gambrel Mansard Shed	(10) Floor Support			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan										
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan										
Chimney: Brick				Lump Sum Items:													

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
HARRIS ADAM/SHARON BURNSID	COUNTY OF MUSKEGON TREASURER	0	04/29/2015	WD	TAX REVERTED	4053/968	DEED	0.0			
DEUTSCHE BANK	HARRIS ADAM/SHARON BURNSID	8,500	12/22/2008		FORECLOSURE PURCHASE	3799/326	DEED	100.0			
SHERIFF	DEUTSCHE BANK	38,344	09/21/2007	SD	SHERIFF DEED	3756/742	DEED	0.0			
PATINO CHARLES	HARRIS MICHELLE/TONY	63,000	10/20/2005	WD	WARRANTY DEED	3673/812	DEED	100.0			
Property Address		Class: 401 RESIDENTIAL		Zoning: RM-2	Building Permit(s)		Date	Number	Status		
2816 BAKER ST		School: MUSKEGON HEIGHTS SCHOOLS					12/04/2007	E-135-07			
Owner's Name/Address		P.R.E. 0%					08/19/2005	P-17A-05			
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-209-160					08/12/2005	E-89-05			
		2016 Est TCV 16,600 (Value Overridden)					05/24/2005	B-127-05			
Tax Description		X Improved		Vacant	Land Value Estimates for Land Table 00007. SKY BLUE						
HT3117 BLK 209 LOT 16		Public Improvements		* Factors *					Value		
Comments/Influences		Dirt Road		NEIGHBORHOOD #7	Frontage 50.00	Depth 125.00	Front 1.0000	Depth 1.0000	Rate %Adj. 70 100	Reason	Value 3,500
		Gravel Road		50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 3,500							
		Paved Road									
		Storm Sewer									
		Sidewalk									
		Water									
		Sewer									
		Electric									
		Gas									
		Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		Level									
		Rolling									
		Low									
		High									
		Landscaped									
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain									
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value			
Who		When	What	2016	1,800	6,500	8,300	8,300C			
CEJ 12/31/1992 REVIEWED				2015	1,800	6,500	8,300	8,300S			
				2014	1,800	15,300	17,100	17,100S			
				2013	1,800	15,900	17,700	17,700S			



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage		
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: C Exterior: Siding Brick Ven.: 0 Stone Ven.: 0 Common Wall: Detache Foundation: 18 Inch Finished ?: Auto. Doors: 0 Mech. Doors: 0 Area: 400 % Good: 0 Storage Area: 0 No Conc. Floor: 0		
X	Wood Frame		Drywall Paneled		Plaster Wood T&G								35	WSEP (1 Story)				
Building Style: 2 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Class: C Effec. Age: 56 Floor Area: 1472 Total Base Cost: 95,819 Total Base New : 131,273 Total Depr Cost: 29,536 Estimated T.C.V: 13,144			CntyMult X 1.370 E.C.F. X 0.445			Bsmnt Garage: Carport Area: Roof:					
Yr Built	Remodeled	Size of Closets		Central Air Wood Furnace			Stories Exterior			Foundation Rate			Bsmnt-Adj Heat-Adj			Size Cost		
1905	0	Ex	X	Ord		Min	100 Amps Service			Mich Bsmnt. 105.91			-4.87 0.00			456 46,074		
Condition for Age: Average		Lg	X	Ord		Small	No./Qual. of Fixtures			Rate			Rate			Size Cost		
Room List		Doors:		Solid	X	H.C.	Ex. X Ord. Min			Rate			Rate			Size Cost		
Basement 1st Floor 2nd Floor 4 Bedrooms		Kitchen: Other: Other:		(12) Electric			No. of Elec. Outlets			Rate			Rate			Size Cost		
(1) Exterior		Basement: 1016 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		100 Amps Service			Many X Ave. Few			Rate			Rate			Size Cost		
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		(13) Plumbing			Average Fixture(s)			Rate			Rate			Size Cost		
(2) Windows		Basement: 1016 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
Many	X	Large	Basement		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost	
Avg.	X	Avg.	(8) Basement		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost	
Few		Small	Conc. Block Poured Conc. Stone Treated Wood Concrete Floor		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost	
Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens		(9) Basement Finish		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
(3) Roof		Recreation SF Living SF Walkout Doors No Floor SF		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
X	Gable Hip Flat	Gambrel Mansard Shed		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
X Asphalt Shingle		Joists: Unsupported Len: Cntr.Sup:		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
Chimney: Brick		1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		
		Lump Sum Items:		Average Fixture(s)			2 3 Fixture Bath			Rate			Rate			Size Cost		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
BRIGGS TAMEKA	CITY OF MUSKEGON HEIGHTS	5,000	07/13/2012	QC	QUIT- CLAIM		DEED	0.0
MITCHELL ROBERT	RICE WILLIE C ET AL	18,000	04/07/2000	WD	ESTATE	3042/524	DEED	0.0
FMB LUMBERMANS	MITCHELL, ROBERT	10,000	02/19/1997		WARRANTY DEED	1970:94	DEED	0.0

Property Address	Class: 703.EXEMPT COUNTY	Zoning: RM-2	Building Permit(s)	Date	Number	Status
2820 BAKER ST	School: MUSKEGON HEIGHTS SCHOOLS			09/02/2009	B-213-09	
	P.R.E. 0%			06/27/2007	B-160-07	
Owner's Name/Address	MAP #: 26-000-209-150			05/20/1998	B-136-98	
CITY OF MUSKEGON HEIGHTS 2724 PECK ST MUSKEGON MI 49444	2016 Est TCV 0 TCV/TFA: 0.00					

Tax Description	Improved	Vacant	Land Value Estimates for Land Table 00007. SKY BLUE							
HT3116 BLK 209 LOT 15			* Factors *							
Comments/Influences			Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
FIRE: 12/31/2014			NEIGHBORHOOD #7	50.00	125.00	1.0000	1.0000	70	100	3,500
			50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 3,500							

Public Improvements	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Dirt Road	2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
X Gravel Road	2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
X Paved Road	2014	0	0	0			0
X Storm Sewer	2013	0	0	0			0
X Sidewalk							
X Water							
X Sewer							
X Electric							
X Gas							
X Curb							
Street Lights							
Standard Utilities							
Underground Utils.							

Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2014	0	0	0			0
High	2013	0	0	0			0
Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							



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Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.									
DANIELS RENE S	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/52	DEED	0.0									
K & D REAL ESTATE LLC	DANIELS RENE S	0	09/06/2012	QC	QUIT- CLAIM	3925/917	DEED	100.0									
KEELER KIMBERLY/RASHID ALI	K & D REAL ESTATE LLC	0	05/29/2012	QC	QUIT- CLAIM	3916/59	DEED	100.0									
SULLIVAN ANITA	KEELER KIMBERLY/RASHID ALI	0	04/11/2012	QC	QUIT- CLAIM	3913/178	DEED	100.0									
Property Address		Class: 703.EXEMPT COUNTY		Zoning:		Building Permit(s)		Date	Number	Status							
2822 HOWDEN ST		School: MUSKEGON HEIGHTS SCHOOLS															
Owner's Name/Address		P.R.E. 0%															
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-249-100		2016 Est TCV 0 TCV/TFA: 0.00													
Tax Description		X Improved		Vacant		Land Value Estimates for Land Table 00007. SKY BLUE											
HT3849 BLK 249 LOTS 10 & 11 MUSKEGON IMPROVEMENT CO'S ANNEX #1		Public Improvements		* Factors *													
Comments/Influences		Dirt Road		NEIGHBORHOOD #7		80.00 125.00		1.0000 1.0000		70 100	5,600						
		X Paved Road		80 Actual Front Feet, 0.23 Total Acres		Total Est. Land Value =				5,600							
		X Storm Sewer															
		X Sidewalk															
		X Water															
		X Sewer															
		X Electric															
		X Gas															
		X Curb															
		X Street Lights															
		Standard Utilities															
		Underground Utils.															
		Topography of Site															
		X Level															
		Rolling															
		Low															
		High															
		Landscaped															
		Swamp															
		Wooded															
		Pond															
		Waterfront															
		Ravine															
		Wetland															
		Flood Plain															
		Who		Year		Land Value		Building Value		Assessed Value		Board of Review		Tribunal/Other		Taxable Value	
		When		2016		EXEMPT		EXEMPT		EXEMPT						EXEMPT	
		What		2015		EXEMPT		EXEMPT		EXEMPT						EXEMPT	
		CEJ 12/31/1992 REVIEWED		2014		2,800		11,100		13,900						13,900S	
		CED 06/01/2001 REVIEWED		2013		2,800		11,500		14,300						14,300S	



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage						
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 180	Type WCP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:						
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G																	
Building Style: 1 1/2 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling			Central Air Wood Furnace			Class: C Effec. Age: 55 Floor Area: 1260 Total Base Cost: 81,418 Total Base New : 111,542 Total Depr Cost: 42,665 Estimated T.C.V: 18,986			CntyMult X 1.370 E.C.F. X 0.445			Bsmnt Garage: Carport Area: Roof:						
Yr Built 1905	Remodeled 1991	Size of Closets		No./Qual. of Fixtures			Stories Exterior			Foundation Rate			Bsmnt-Adj Heat-Adj			Size Cost						
Condition for Age: Average		Lg	X	Ord		Small	Ex.	X	Ord.	Min	Other Additions/Adjustments			Rate			Size Cost					
Room List		Doors:		Solid	X	H.C.	(12) Electric 100 Amps Service			1.5 Story Siding 1 Story Siding			Basement Crawl Space			87.35 0.00 0.00 68.63 -10.06 0.00			720 62,892 180 10,543			
Basement 1 1st Floor 2 2nd Floor 3 Bedrooms		Kitchen: Softwood Other: Carpeted Other: Tile		No. of Elec. Outlets			Average Fixture(s)			(13) Plumbing			2 Fixture Bath 1600.00			1 1,600						
(1) Exterior	X	Plaster					Many			X	Ave.		Few	(14) Water/Sewer			Public Water Public Sewer			1162.00 1 1,162 1162.00 1 1,162		
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Basement: 720 S.F. Crawl: 180 S.F. Slab: 0 S.F. Height to Joists: 0.0			1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Porches			WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 85/38.3, ECF (SKY BLUE)			22.55 Depr.Cost = 0.445 => TCV of Bldg: 1 =			180 4,059 42,665 18,986			
(2) Windows	Many Avg. Few	X	Large Avg. Small	(8) Basement			1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water Public Sewer			1162.00 1 1,162 1162.00 1 1,162			180 4,059 42,665 18,986						
X	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor	(9) Basement Finish			Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 85/38.3, ECF (SKY BLUE)			22.55 Depr.Cost = 0.445 => TCV of Bldg: 1 =			180 4,059 42,665 18,986						
X	Double Glass Patio Doors Storms & Screens		Recreation SF Living SF Walkout Doors No Floor SF	(10) Floor Support			1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 85/38.3, ECF (SKY BLUE)			22.55 Depr.Cost = 0.445 => TCV of Bldg: 1 =			180 4,059 42,665 18,986						
(3) Roof	X	Gable Hip Flat	Gambrel Mansard Shed	Joists: Unsupported Len: Cntr.Sup:			1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 85/38.3, ECF (SKY BLUE)			22.55 Depr.Cost = 0.445 => TCV of Bldg: 1 =			180 4,059 42,665 18,986						
X	Asphalt Shingle	Lump Sum Items:		1 3 Fixture Bath 1 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/ 85/38.3, ECF (SKY BLUE)			22.55 Depr.Cost = 0.445 => TCV of Bldg: 1 =			180 4,059 42,665 18,986									
Chimney: Brick																						

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
MAY PROPERTY MANAGEMENT	CITY OF MUSKEGON HEIGHTS	5,000	02/26/2010	WD	WARRANTY DEED	3838/583	DEED	0.0
		2,000	10/27/1995	LC	QUIT-CLAIM	1864:0483	DEED	0.0

Property Address	Class: 703.EXEMPT COUNTY	Zoning: RM-2	Building Permit(s)	Date	Number	Status
2824 BAKER ST	School: MUSKEGON HEIGHTS SCHOOLS					
Owner's Name/Address	P.R.E. 0%					
CITY OF MUSKEGON HEIGHTS 2724 PECK ST MUSKEGON MI 49444	MAP #: 26-000-209-140					
	2016 Est TCV 0 TCV/TFA: 0.00					

Tax Description	X	Improved	Vacant	Land Value Estimates for Land Table 00007. SKY BLUE								
				Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
HT3115 BLK 209 LOT 14				NEIGHBORHOOD #7	50.00	125.00	1.0000	1.0000	70	100		3,500
Comments/Influences				50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 3,500								

Comments/Influences



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Public Improvements	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
Dirt Road	2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Gravel Road	2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Paved Road	2014	0	0	0			0
Storm Sewer	2013	0	0	0			0
Sidewalk							
Water							
Sewer							
Electric							
Gas							
Curb							
Street Lights							
Standard Utilities							
Underground Utils.							
Topography of Site							
Level							
Rolling							
Low							
High							
Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
CEJ	12/31/1992	REVIEWED					

*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage							
X	Single Family	Eavestrough Insulation	0	X	Gas Wood	Oil Coal	Elec. Steam	Appliance Allow. Cook Top	Interior 1 Story	Interior 2 Story	Area	Type	90	WSEP (1 Story)	Year Built:	Car Capacity:						
	Town Home																0	Forced Air w/o Ducts	Dishwasher	2nd/Same Stack		
X	Duplex	0	Other Overhang	X	Forced Air w/ Ducts			Garbage Disposal	Two Sided						Brick Ven.: 0	Stone Ven.: 0						
X	A-Frame	(4) Interior		Forced Hot Water			Bath Heater	Exterior 1 Story		Exterior 2 Story					Common Wall: Detache	Foundation: 18 Inch						
X	Wood Frame	Drywall Paneled	Plaster Wood T&G	Electric Baseboard			Hot Tub	Prefab 1 Story		Prefab 2 Story					Finished ?:	Auto. Doors: 0	Mech. Doors: 0					
Building Style: 1 1/4 STY		Trim & Decoration		Elec. Ceil. Radiant			Unvented Hood	Heat Circulator		Raised Hearth						Area: 240	% Good: 19	Storage Area: 0				
Yr Built 1920	Remodeled 0	Ex X Ord Min		Electric Wall Heat			Vented Hood	Heat Circulator		Wood Stove								No Conc. Floor: 0				
Condition for Age: Average		Lg X Ord Small		Space Heater			Intercom	Jacuzzi Tub		Jacuzzi repl.Tub												
Room List		Doors: Solid X H.C.		Wall/Floor Furnace			Heat Pump	Microwave		Standard Range		Self Clean Range		Sauna		Trash Compactor		Central Vacuum		Security System		
Basement		Kitchen:		Central Air			Wood Furnace		Class: C -10		Effec. Age: 56		Floor Area: 692		CntyMult		Total Base Cost: 96,881		X 1.370		Bsmnt Garage:	
1st Floor		Other:		(12) Electric			100 Amps Service		Total Base New : 132,727		Total Depr Cost: 55,307		Estimated T.C.V: 24,612		X 0.445		Carport Area:		Roof:			
2nd Floor		Other:		No./Qual. of Fixtures			Ex. X Ord. Min		1.25 Story Siding		Basement		64.45 0.00 0.00		546		35,190					
Bedrooms		(6) Ceilings		No. of Elec. Outlets			Many X Ave. Few			1 Story Siding		Slab		57.68 -9.65 0.00		10		480				
(1) Exterior		(7) Excavation		(13) Plumbing			Average Fixture(s)			2 Exterior Units, (@6% more)		Base cost of Exterior units =				75,620						
X	Wood/Shingle	Basement: 546 S.F.		1			3 Fixture Bath			Other Additions/Adjustments		Rate		Size		Cost						
X	Aluminum/Vinyl	Crawl: 0 S.F.		2			2 Fixture Bath			(14) Water/Sewer		Public Water		1162.00		1		1,162				
X	Brick	Slab: 10 S.F.		3			Softener, Auto			(15) Porches		Public Sewer		1162.00		1		1,162				
X	Insulation	Height to Joists: 0.0		4			Softener, Manual			WSEP (1 Story), Standard		36.27		90		6,529						
(2) Windows		(8) Basement		5			Solar Water Heat			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0,		Separately Depreciated Items:										
X	Many Avg. Few	X	Large Avg. Small	6			No Plumbing			(16) Garages		Class:C Exterior: Siding Foundation: 18 Inch (Unfinished)		Base Cost		25.85		240		12,408		
X	Wood Sash	Conc. Block		7			Extra Toilet			County Multiplier = 1.37 =>		Cost New =										
X	Metal Sash	Poured Conc.		8			Extra Sink			Phy/Ab.Phy/Func/Econ/Comb.%Good= 19/100/100/100/19.0,		Depr.Cost =		3,230								
X	Vinyl Sash	Stone		9			Separate Shower			Total Depreciated Cost =		55,307										
X	Double Hung	Treated Wood		10			Ceramic Tile Floor			ECF (SKY BLUE)		0.445 => TCV of Bldg: 1 =		24,612								
X	Horiz. Slide	Concrete Floor		11			Ceramic Tile Wains															
X	Casement	(9) Basement Finish		12			Ceramic Tub Alcove															
X	Double Glass	Recreation SF		13			Vent Fan															
X	Patio Doors	Living SF		14			(14) Water/Sewer															
X	Storms & Screens	Walkout Doors		15			1 Public Water															
(3) Roof		No Floor SF		16			1 Public Sewer															
X	Gable	(10) Floor Support		17			Water Well															
X	Hip	Joists:		18			1000 Gal Septic															
X	Flat	Unsupported Len:		19			2000 Gal Septic															
X	Asphalt Shingle	Cntr.Sup:		20			Lump Sum Items:															
Chimney: Brick																						

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.
SANDERS J ARTHUR	CITY OF MUSKEGON HEIGHTS	4,100	01/21/2011	WD	WARRANTY DEED	3868/252	DEED	100.0
DAS KC/JOYCE M	SANDERS J ARTHUR	0	05/17/2000	WD	LC PAYOFF	3361/880	DEED	0.0
		0	06/19/1990	WD	LAND CONTRACT	1524:0477	DEED	0.0

Property Address	Class: 703.EXEMPT COUNTY	Zoning: RM-2	Building Permit(s)	Date	Number	Status
2828 BAKER ST	School: MUSKEGON HEIGHTS SCHOOLS			07/20/1998	B-230-98	
Owner's Name/Address	P.R.E. 0%					
CITY OF MUSKEGON HEIGHTS 2724 PECK ST MUSKEGON HTS MI 49444	MAP #: 26-000-209-130					
	2016 Est TCV 0 TCV/TFA: 0.00					

Tax Description	Improved	Vacant	Land Value Estimates for Land Table 00007. SKY BLUE						Value
HT3114 BLK 209 LOT 13	X		NEIGHBORHOOD #7 50.00 125.00 1.0000 1.0000 70 100						3,500
Comments/Influences			50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value =						3,500

Public Improvements

- X Dirt Road
- X Gravel Road
- X Paved Road
- X Storm Sewer
- X Sidewalk
- X Water
- X Sewer
- X Electric
- X Gas
- X Curb
- Street Lights
- Standard Utilities
- Underground Utils.



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Topography of Site	Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value
X Level	2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Rolling	2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT
Low	2014	0	0	0			0
High	2013	0	0	0			0
Landscaped							
Swamp							
Wooded							
Pond							
Waterfront							
Ravine							
Wetland							
Flood Plain							
Who	When	What					
CEJ	12/31/1998	REVIEWED					

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage									
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area	Type	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:								
X	Wood Frame		(4) Interior Drywall Paneled	X	Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling								84	WGEP (1 Story)										
Building Style: 1 1/2 STY		Trim & Decoration		Central Air Wood Furnace																				
Yr Built 1920	Remodeled 0	Ex	X	Ord		Min	(12) Electric																	
Condition for Age: Average		Size of Closets		100 Amps Service																				
Room List		(5) Floors		No./Qual. of Fixtures			Stories			Exterior			Foundation		Rate		Bsmnt-Adj		Heat-Adj		Size		Cost	
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		Ex. X Ord. Min			1.5 Story Siding			Basement			81.18		0.00		0.00		720		58,450			
(1) Exterior		(6) Ceilings		No. of Elec. Outlets			1.25 Story Siding			Overhang			41.90		0.00		0.00		14		587			
X	Wood/Shingle Aluminum/Vinyl Brick	(7) Excavation		Many X Ave. Few			Other Additions/Adjustments			Rate														
	Insulation	Basement: 720 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0		(13) Plumbing			(14) Water/Sewer						1025.00				1		1,025					
(2) Windows		(8) Basement		Average Fixture(s)			(16) Porches						1025.00				1		1,025					
X	Many Avg. Few	X	Large Avg. Small	1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			WGEP (1 Story), Standard			45.44							84		3,817					
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			Phy/Ab.Phy/Func/Econ/Comb.%Good= 48/100/100/48.0,			0.445 => TCV of Bldg:							1		= 18,993					
(3) Roof		(10) Floor Support		(14) Water/Sewer																				
X	Gable Hip Flat		Gambrel Mansard Shed	1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic																				
X	Asphalt Shingle	Joists: Unsupported Len: Cntr.Sup:		Lump Sum Items:																				
Chimney: Brick																								

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
LAKELAND ENTERPRISES LLC	COUNTY OF MUSKEGON TREASURER	0	04/01/2014	QC	TAX REVERTED	4021/130	DEED	0.0			
HAVERMANS LOIS A TRUST	LAKELAND ENTERPRISES	0	09/28/2012	QC	QUIT- CLAIM	3926/281	DEED	0.0			
LUNAR PROPERTIES L L C	LOIS A HAVERMANS TRUST	0	04/10/2003	TA	AFFIDAVIT		DEED	0.0			
HAVERMANS THEODORE/LOIS	LUNAR PROPERTIES L L C	0	05/17/2002	QC	QUIT-CLAIM	3465/643	DEED	0.0			
Property Address		Class: 703.EXEMPT COUNTY		Zoning:	Building Permit(s)	Date	Number	Status			
2916 BAKER ST		School: MUSKEGON HEIGHTS SCHOOLS				12/21/2009	E-121-09				
Owner's Name/Address		P.R.E. 0%				12/18/2007	H-179-07				
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-230-160				02/07/2006	SR-20-06				
Tax Description		2016 Est TCV 0 TCV/TFA: 0.00				11/29/2005	B-322-05				
HT3529 BLK 230 LOT 16		X Improved		Vacant	Land Value Estimates for Land Table 00007. SKY BLUE						
Comments/Influences		Public Improvements		* Factors *				Value			
		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj.	Reason	Value
		Gravel Road		NEIGHBORHOOD #7	50.00	125.00	1.0000	1.0000	70	100	3,500
		X Paved Road		50 Actual Front Feet, 0.14 Total Acres				Total Est. Land Value =		3,500	
		X Storm Sewer									
		X Sidewalk									
		X Water									
		X Sewer									
		X Electric									
		X Gas									
		X Curb									
		X Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		X Level									
		Rolling									
		Low									
		High									
		Landscaped									
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Who	When	What	2016	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		CEJ	12/31/1992	REVIEWED	2015	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		CED	05/01/2001	REVIEWED	2014	1,800	10,300	12,100		12,100S	
					2013	1,800	10,700	12,500		12,500S	



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Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage	
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 144	Type WGEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:
X	Wood Frame		Drywall Paneled	X	Plaster Wood T&G											
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling												
Yr Built 1910	Remodeled 1989	Ex	X	Ord		Min	Size of Closets			Class: CD Effec. Age: 57 Floor Area: 1056 Total Base Cost: 64,588 Total Base New : 88,486 Total Depr Cost: 39,819 Estimated T.C.V: 17,719						
Condition for Age: Average		Lg	X	Ord		Small	Central Air Wood Furnace			CnlyMult X 1.370 E.C.F. X 0.445						
Room List		(5) Floors		Kitchen: Softwood Other: Carpeted Other: Tile			(12) Electric 100 Amps Service			Stories Exterior Foundation Rate Bsmnt-Adj Heat-Adj 1 Story Siding Mich Bsmnt. 58.72 -4.32 0.00 Other Additions/Adjustments Rate (14) Water/Sewer Public Water 1025.00 1 1,025 Public Sewer 1025.00 1 1,025 (16) Porches WGEP (1 Story), Standard 35.36 144 5,092 Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/100/100/100/45.0, Depr.Cost = 39,819 ECF (SKY BLUE) 0.445 => TCV of Bldg: 1 = 17,719						
Basement 2 1st Floor 2nd Floor 2 Bedrooms		(6) Ceilings		No./Qual. of Fixtures Ex. X Ord. Min			No. of Elec. Outlets Many X Ave. Few			(13) Plumbing Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan						
(1) Exterior	X	Plaster														
Wood/Shingle	X	Aluminum/Vinyl Brick	(7) Excavation		Basement: 1056 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0											
X	Insulation	(8) Basement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor												
(2) Windows		Many Avg. Few	X	Large Avg. Small	(9) Basement Finish											
Wood Sash	X	Metal Sash	Recreation SF Living SF Walkout Doors No Floor SF													
X	Vinyl Sash Double Hung Horiz. Slide Casement	(10) Floor Support		Joists: Unsupported Len: Cntr.Sup:												
X	Double Glass Patio Doors															
X	Storms & Screens															
(3) Roof																
Gable	X	Hip		Gambrel Mansard Shed												
X	Asphalt Shingle															
Chimney: Brick																

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.			
WRIGHT GREGG	MUSKEGON COUNTY TREASURER	0	09/30/2014	WD	FORECLOSURE	4033/6	DEED	0.0			
COUNTY OF MUSKEGON TREASURER	WRIGHT GREGG	110	08/25/2014	QC	QUIT- CLAIM	4030/229	DEED	0.0			
MCCLAIN ALONDO L	COUNTY OF MUSKEGON TREASURER	0	04/01/2013	QC	FORECLOSURE	3950/175	DEED	0.0			
MAY STEPHAN	MCCLAIN ALONDO L	0	02/03/2012	QC	QUIT- CLAIM	3901/854	DEED	100.0			
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES	Building Permit(s)		Date	Number	Status		
2921 JEFFERSON ST		School: MUSKEGON HEIGHTS SCHOOLS					08/08/2000	B-238-00			
Owner's Name/Address		P.R.E. 0%					11/30/1999	H-130-09			
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-225-060		2016 Est TCV 0 TCV/TFA: 0.00							
Tax Description		X	Improved	Vacant	Land Value Estimates for Land Table 00011.DK GREEN						
HT3427 BLK 225 LOT 6		Public Improvements		* Factors *					Value		
Comments/Influences		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate %Adj. Reason	Value	
		Gravel Road		NEIGHBORHOOD	11	50.00	125.00	1.0000	1.0000	60 100	3,000
		Paved Road		50 Actual Front Feet, 0.14 Total Acres Total Est. Land Value = 3,000							
		Storm Sewer									
		Sidewalk									
		Water									
		Sewer									
		Electric									
		Gas									
		Curb									
		Street Lights									
		Standard Utilities									
		Underground Utils.									
		Topography of Site									
		Level									
		Rolling									
		Low									
		High									
		Landscaped									
		Swamp									
		Wooded									
		Pond									
		Waterfront									
		Ravine									
		Wetland									
		Flood Plain		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value	
		Who	When	What	2016	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		CEJ	12/31/1997	REVIEWED	2015	EXEMPT	EXEMPT	EXEMPT		EXEMPT	
		ROB	01/02/2014	FIELD REVI	2014	0	0	0		0	
					2013	1,500	10,600	12,100		12,100S	



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*** Information herein deemed reliable but not guaranteed***

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage			
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 144	Type WSEP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:		
X	Wood Frame		Drywall Paneled				Plaster Wood T&G											
Building Style: 1 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling														
Yr Built 1925	Remodeled 0	Ex	X	Ord		Min	Size of Closets											
Condition for Age: Average		Lg	X	Ord		Small	Doors:											
Room List		(5) Floors		Central Air Wood Furnace														
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(12) Electric 100 Amps Service														
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Stories Exterior			Foundation			Rate	Bsmnt-Adj	Heat-Adj	Size	Cost	
X	Wood/Shingle Aluminum/Vinyl Brick				Ex.	X	Ord.		Min	1 Story Siding			51.10	0.00	0.66	800	41,408	
	Insulation			No. of Elec. Outlets			Other Additions/Adjustments			Rate					Size		Cost	
(2) Windows		(7) Excavation		(13) Plumbing			(14) Water/Sewer											
X	Many Avg. Few	X	Large Avg. Small	Basement: 800 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			Public Water Public Sewer			912.00 912.00			1 1		912 912
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	(8) Basement		Basement Finish			(16) Porches			WSEP (1 Story), Standard			26.77		144		3,855	
(3) Roof		(9) Basement		Recreation SF Living SF Walkout Doors No Floor SF			(14) Water/Sewer			Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 50/100/100/22.5, ECF (DK GREEN)			0.535 => TCV of Bldg: 1 =				14,515 7,765	
X	Gable Hip Flat		Gambrel Mansard Shed	(10) Floor Support			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic											
X	Asphalt Shingle			Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:											
Chimney: Brick																		

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.				
HOWARD U T	COUNTY OF MUSKEGON TREASURER	0	04/01/2013	QC	FORECLOSURE	3950/233	DEED	0.0				
SHERROD STEPHON	HOWARD U T	0	07/11/2011	QC	QUIT-CLAIM	3885/636	DEED	100.0				
MUSKEGON COUNTY TREASURER	SHERROD STEPHON	100	10/04/2010	QC	QUIT-CLAIM	3860/650	DEED	100.0				
PEAKE ANNA	MUSKEGON COUNTY TREASURER	0	04/02/2010	CD	ASSIGNMENT	3846/268	DEED	0.0				
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES		Building Permit(s)		Date	Number	Status		
3133 JEFFERSON ST		School: MUSKEGON HEIGHTS SCHOOLS						07/24/2006	B-313-06			
Owner's Name/Address		P.R.E. 0%		MAP #: 26-061-012-170		2016 Est TCV 0 TCV/TFA: 0.00						
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		X Improved		Vacant		Land Value Estimates for Land Table 00010.SOUTHWEST						
Tax Description		Public Improvements		* Factors *								
HT7069 CHAS M STEELE'S SUB'D BLK 12 LOTS 17 THRU 20 INCLUSIVE		Dirt Road		Description	Frontage	Depth	Front	Depth	Rate	%Adj.	Reason	Value
Comments/Influences		Gravel Road		SOUTHWEST	100.00	104.00	1.0000	1.0000	70	100		7,000
7/24/14: LEGAL DESCRIPTION CHANGED FOR 2015 TAX YEAR		X Paved Road		100 Actual Front Feet, 0.24 Total Acres Total Est. Land Value = 7,000								
		X Storm Sewer										
		X Sidewalk										
		X Water										
		X Sewer										
		X Electric										
		X Gas										
		X Curb										
		Street Lights										
		Standard Utilities										
		Underground Utils.										
Topography of Site		X Level		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value		
		Rolling		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
		Low		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT		
		High		2014	0	0	0			0		
		Landscaped		2013	1,800	9,200	11,000			11,000S		
		Swamp										
		Wooded										
		Pond										
		Waterfront										
		Ravine										
		Wetland										
		Flood Plain										
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: County of Muskegon, Michigan		Who When What										
		CEJ 12/31/1998 REVIEWED										
		DG 12/14/1998 DATA ENTER										



Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks		(17) Garage		
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 80	Type CPP	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:	
X	Wood Frame		Drywall Paneled				Plaster Wood T&G										
Building Style: 1 1/2 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling													
Yr Built 1930	Remodeled 0	Ex	X	Ord		Min	Size of Closets		Lg		X	Ord		Small			
Condition for Age: Average		Doors:		Solid	X	H.C.											
Room List		(5) Floors		Central Air Wood Furnace													
	Basement 1st Floor 2nd Floor Bedrooms	Kitchen: Other: Other:		(12) Electric 100 Amps Service													
(1) Exterior		(6) Ceilings		No./Qual. of Fixtures			Stories Exterior			Foundation		Rate	Bsmnt-Adj	Heat-Adj	Size	Cost	
X	Wood/Shingle Aluminum/Vinyl Brick				Ex.	X	Ord.		Min	1.5	Story Siding	Basement	65.51	0.00	0.98	784	52,128
	Insulation			No. of Elec. Outlets			Many			X	Ave.		Few				
(2) Windows		(7) Excavation		(13) Plumbing													
X	Many Avg. Few	X	Large Avg. Small	Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan													
	Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens	Basement: 784 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0															
(3) Roof		(8) Basement		(14) Water/Sewer													
X	Gable Hip Flat		Gambrel Mansard Shed	1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic													
X	Asphalt Shingle			Lump Sum Items:													
Chimney: Brick																	

*** Information herein deemed reliable but not guaranteed***

Grantor	Grantee	Sale Price	Sale Date	Inst. Type	Terms of Sale	Liber & Page	Verified By	Prcnt. Trans.				
INTERSTATE INVESTMENT GROU	COUNTY OF MUSKEGON TREASUR	0	04/01/2014	QC	TAX REVERTED	4021/63	DEED	0.0				
INTERSTATE INVESTMENT GROU	6313 HOWDEN TRUST	0	06/02/2009	QC	QUIT-CLAIM	3821/111	DEED	100.0				
LENDER USA LLC	MOORE GARY	5,901	10/22/2008	QC	QUIT-CLAIM	3794/488	DEED	100.0				
SB HOLDING LLC	LENDERUSA LLC	0	05/27/2008	QC	FORECLOSURE PURCHASE	3782/358	DEED	100.0				
Property Address		Class: 703.EXEMPT COUNTY		Zoning: R1-RES	Building Permit(s)	Date	Number	Status				
3136 HOWDEN ST		School: MUSKEGON HEIGHTS SCHOOLS										
Owner's Name/Address		P.R.E. 0%										
COUNTY OF MUSKEGON TREASURER 173 E APPLE AVE STE 104 MUSKEGON MI 49442		MAP #: 26-000-276-230										
Tax Description		2016 Est TCV 0 TCV/TFA: 0.00										
HT4453 BLK 276 LOT 23 MUSKEGON IMPROVEMENT CO'S ANNEX #1 Comments/Influences		X	Improved	Vacant	Land Value Estimates for Land Table 00008.DK. BLUE							
		Public Improvements		* Factors *								
		X	Dirt Road	NEIGHBORHOOD 8	40.00	125.00	1.0000	1.0000	50	100	Reason	Value
			Gravel Road	40 Actual Front Feet,	0.12	Total Acres	Total Est. Land Value =				2,000	
			Paved Road								2,000	
			Storm Sewer									
			Sidewalk									
		X	Water									
		X	Sewer									
		X	Electric									
		X	Gas									
			Curb									
			Street Lights									
			Standard Utilities									
			Underground Utils.									
		Topography of Site										
			Level									
			Rolling									
			Low									
			High									
			Landscaped									
			Swamp									
			Wooded									
			Pond									
			Waterfront									
			Ravine									
			Wetland									
			Flood Plain									
		Year	Land Value	Building Value	Assessed Value	Board of Review	Tribunal/Other	Taxable Value				
		2016	EXEMPT	EXEMPT	EXEMPT			EXEMPT				
		2015	EXEMPT	EXEMPT	EXEMPT			EXEMPT				
		2014	1,000	4,900	5,900			5,900S				
		2013	1,000	10,300	11,300			11,300S				
The Equalizer. Copyright (c) 1999 - 2009. Licensed To: County of Muskegon, Michigan		Who	When	What								
		RJ	01/11/1999	REVIEWED								



10/27/2008 10:53:23

Building Type		(3) Roof (cont.)		(11) Heating/Cooling			(15) Built-ins			(15) Fireplaces			(16) Porches/Decks			(17) Garage				
X	Single Family Mobile Home Town Home Duplex A-Frame		Eavestrough Insulation 0 Front Overhang 0 Other Overhang	X	Gas Wood		Oil Coal		Elec. Steam		Appliance Allow. Cook Top Dishwasher Garbage Disposal Bath Heater Vent Fan Hot Tub Unvented Hood Vented Hood Intercom Jacuzzi Tub Jacuzzi repl.Tub Oven Microwave Standard Range Self Clean Range Sauna Trash Compactor Central Vacuum Security System		Interior 1 Story Interior 2 Story 2nd/Same Stack Two Sided Exterior 1 Story Exterior 2 Story Prefab 1 Story Prefab 2 Story Heat Circulator Raised Hearth Wood Stove Direct-Vented Gas	Area 108	Type WCP (1 Story)	Year Built: Car Capacity: Class: Exterior: Brick Ven.: Stone Ven.: Common Wall: Foundation: Finished ?: Auto. Doors: Mech. Doors: Area: % Good: Storage Area: No Conc. Floor:				
X	Wood Frame		Drywall Paneled				Plaster Wood T&G													
Building Style: 1 1/4 STY		Trim & Decoration		Forced Air w/o Ducts Forced Air w/ Ducts Forced Hot Water Electric Baseboard Elec. Ceil. Radiant Radiant (in-floor) Electric Wall Heat Space Heater Wall/Floor Furnace Forced Heat & Cool Heat Pump No Heating/Cooling																
Yr Built 1940	Remodeled 0	Ex	X	Ord		Min	Size of Closets		Lg		X	Ord		Small	Doors:		Solid	X	H.C.	
Condition for Age: Average		(5) Floors		Central Air Wood Furnace			(12) Electric			100 Amps Service			Class: D Effec. Age: 55 Floor Area: 990 Total Base Cost: 52,248 Total Base New: 71,579 Total Depr Cost: 16,105 Estimated T.C.V: 7,167			CntyMult X 1.370 E.C.F. X 0.445	Bsmnt Garage:			
Room List		Basement 1st Floor 2nd Floor Bedrooms		Kitchen: Other: Other:			No./Qual. of Fixtures			Stories Exterior 1.25 Story Siding			Foundation Basement	Rate 59.34	Bsmnt-Adj 0.00	Heat-Adj 0.83	Size 792	Cost 47,655		
(1) Exterior				Ex.			X	Ord.		Min	No. of Elec. Outlets			Other Additions/Adjustments			Rate		Size	Cost
X	Wood/Shingle Aluminum/Vinyl Brick			Many			X	Ave.		Few	(14) Water/Sewer			Public Water Public Sewer			912.00 912.00		1 1	912 912
Insulation		(7) Excavation		Basement: 792 S.F. Crawl: 0 S.F. Slab: 0 S.F. Height to Joists: 0.0			(13) Plumbing			Average Fixture(s) 1 3 Fixture Bath 2 Fixture Bath Softener, Auto Softener, Manual Solar Water Heat No Plumbing Extra Toilet Extra Sink Separate Shower Ceramic Tile Floor Ceramic Tile Wains Ceramic Tub Alcove Vent Fan			(16) Porches WCP (1 Story), Standard Phy/Ab.Phy/Func/Econ/Comb.%Good= 45/ 50/100/100/22.5, ECF (DK. BLUE)			25.64 Depr.Cost = 0.445 => TCV of Bldg: 1 =			108	2,769 16,105 7,167
(2) Windows		(8) Basement		Conc. Block Poured Conc. Stone Treated Wood Concrete Floor			(14) Water/Sewer			1 Public Water 1 Public Sewer Water Well 1000 Gal Septic 2000 Gal Septic										
Many Avg. Few	X	Large Avg. Small	(9) Basement Finish		Recreation SF Living SF Walkout Doors No Floor SF			(14) Water/Sewer												
Wood Sash Metal Sash Vinyl Sash Double Hung Horiz. Slide Casement Double Glass Patio Doors Storms & Screens				(10) Floor Support			Joists: Unsupported Len: Cntr.Sup:			Lump Sum Items:										
(3) Roof		X		Gable Hip Flat	Gambrel Mansard Shed															
X		Asphalt Shingle		Chimney: Brick																

*** Information herein deemed reliable but not guaranteed***



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
19 Harrison Blvd., Muskegon Heights, MI 49444
Parcel ID: 26-635-275-0009-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 19 Harrison Blvd., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .115 acre residential parcel which contains an approximate 400 square foot residential building (the Building) constructed in 1945. The Building was constructed on a crawl space with one aboveground floor. The exterior walls of the Building were finished with vinyl over wood lap which was over paper underlayment while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and a bedroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on April 7, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Paper Underlayment
- 12"x12" Vinyl Tile
- Linoleum
- 1'x1' Ceiling Tile
- Fiberboard
- Glazing
- Drywall

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

Hazardous Materials Inspection

On April 7, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

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

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

Friable ACM's

A window glazing sample collected from a window in the living room was found to contain up to 10% asbestos following analysis. The assessment to quantify the extent of this material on April 7, 2016 identified two windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Living (1 window 28" wide x 48" tall)
- Living (1 window 28" wide x 54" tall)

Category I ACM

One type of resilient floor covering (White 12"x12" Vinyl Tile) located within the bathroom was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material on April 7, 2016 identified approximately 40 sq. ft. of this material within the Building.

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 window 28" wide x 48" tall)
- Living (1 window 28" wide x 54" tall)

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

The Category I resilient floor covering (White 12"x12" Vinyl Tile) is a non-friable ACM that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

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

Hazardous Materials

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

- No Hazardous Materials Identified

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-275-0009-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 01 Cust. #: HB-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63844 - 01a Cust. #: HB-HM-01A Material: Felt Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63844 - 02 Cust. #: HB-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 03 Cust. #: HB-HM-02A Material: Paper Underlayment Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 63844 - 04 Cust. #: HB-HM-02B Material: Paper Underlayment Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 63844 - 05 Cust. #: HB-HM-03A Material: 12x12 Red Vinyl Tile Location: Appearance: red, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 05a Cust. #: HB-HM-03A Material: Glue Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63844 - 06 Cust. #: HB-HM-03B Material: 12x12 Red Vinyl Tile Location: Appearance: red,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63844 - 06a Cust. #: HB-HM-03B Material: Glue Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Test Method, Polarized Light Microscopy (PLM)



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ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 07 Cust. #: HB-HM-04A Material: 12x12 White Vinyl Tile Location: Appearance: white, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63844 - 07a Cust. #: HB-HM-04A Material: Glue Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63844 - 08 Cust. #: HB-HM-04B Material: 12x12 White Vinyl Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 08a Cust. #: HB-HM-04B Material: Glue Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63844 - 09 Cust. #: HB-HM-05A Material: White Linoleum Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 63844 - 10 Cust. #: HB-HM-05B Material: White Linoleum Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



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Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 11 Cust. #: HB-HM-06A Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 63844 - 12 Cust. #: HB-HM-06B Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 63844 - 13 Cust. #: HB-HM-07A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/13/16
 Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 14 Cust. #: HB-HM-07B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%
Lab ID #: 63844 - 15 Cust. #: HB-HM-08A Material: Glazing Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 63844 - 16 Cust. #: HB-HM-08B Material: Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 19 Harrison Blvd.

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

ARI Report # 16-63844
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/14/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63844 - 17 Cust. #: HB-HM-09A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63844 - 18 Cust. #: HB-HM-09B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63844 - 18a Cust. #: HB-HM-09B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

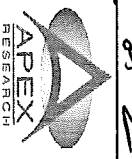
Test Method EPA 600/R-93/116 was used to analyze the above samples. Matrix interference and/or resolution limits may yield false/negative results in certain circumstances. Suspect floor tiles containing <1% should be tested with SEM or TEM. This certificate of analysis relates only to the samples tested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



NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-7-16

Project: 19 Harrison Blvd

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One) P1M EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
 48 hour 72 hour
 Other: 5 Day

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BIOSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	HB-4M-01A	Asphalt Shingle			
2	HB-4M-01B	Asphalt Shingle			
3	HB-4M-02A	Paper Underlayment			
4	HB-4M-02B	Paper Underlayment			
5	HB-4M-03A	Red 12x12 Vinyl Tile			
6	HB-4M-03B	Red 12x12 Vinyl Tile			
7	HB-4M-04A	White 12x12 Vinyl Tile			
8	HB-4M-04B	White 12x12 Vinyl Tile			
9	HB-4M-05A	White Linoleum			
10	HB-4M-05B	White Linoleum			
11	HB-4M-06A	White 1st Ceiling Tile			

RECEIVED

Relinquished by: Aaron Paquet Received by: UTS

Date: 4-7-16 Date: 4-7-16

Relinquished by: _____

Date: _____

Received by: APR 08 2016

63844

Pg 2 of 2

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-7-16

Project: 19 Harrison Blvd.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: Slurry ATP

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BIOSIS Other Viable

TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	HB-KM-083	White 1x1 Ceiling Tile			
13	HB-KM-07A	Fiberboard			
14	HB-KM-07B	Fiberboard			
15	HB-KM-08A	Co Lazing			
16	HB-KM-08B	Co Lazing			
17	HB-KM-09A	Drywall			
18	HB-KM-09B	Drywall			

RECEIVED

Relinquished by: Ann Regout Received by: UTS

Date: 4-7-16 Date: 4-7-16

Relinquished by:

Date:

Received by: Ann

Date: APR 08 2016

Tables

Table 1 - Summary of Hazardous Materials, 19 Harrison Blvd., Muskegon Heights, Michigan

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

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 19 Harrison Blvd., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
HB-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
HB-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
HB-HM-02A	Paper Underlayment	Yes	M	Category II	ND	Exterior	NA
HB-HM-02B	Paper Underlayment	Yes	M	Category II	ND	Exterior	NA
HB-HM-03A	Red 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living/Dining	NA
HB-HM-03B	Red 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living/Dining	NA
HB-HM-04A	White 12"x12" Vinyl Tile	No	M	Category I	5%CH/ND	Bathroom	40 sq. ft.
HB-HM-04B	White 12"x12" Vinyl Tile	No	M	Category I	NA/ND	Bathroom	NA
HB-HM-05A	White Linoleum	No	M	Category I	ND	Bedroom	NA
HB-HM-05B	White Linoleum	No	M	Category I	ND	Bedroom	NA
HB-HM-06A	White 1'x1 Ceiling Tile	Yes	M	Category II	ND	Living	NA
HB-HM-06B	White 1'x1 Ceiling Tile	Yes	M	Category II	ND	Living	NA
HB-HM-07A	Fiberboard	Yes	M	Category II	ND	Bedroom	NA
HB-HM-07B	Fiberboard	Yes	M	Category II	ND	Living	NA
HB-HM-08A	Glazing	Yes	M	Category II	10%CH	Living	2 Windows
HB-HM-08B	Glazing	Yes	M	Category II	NA	Living	NA
HB-HM-09A	Drywall	No	M	Category II	ND	Kitchen Wall	NA
HB-HM-09B	Drywall	No	M	Category II	ND/ND	Living Wall	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 19 Harrison Blvd., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 19 Harrison Blvd., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom	White 12"x12" Vinyl Tile	No	40 sq. ft.
Total			40 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 window 28" wide x 48" tall)	Glazing	Yes	1 Window
Living (1 window 28" wide x 54" tall)	Glazing	Yes	1 Window
Total			2 Windows

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
150 Harrison Blvd., Muskegon Heights, MI 49444
Parcel ID: 26-635-262-0015-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 150 Harrison Blvd., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .115 acre residential parcel which contains a 240 sq. ft. detached garage and approximate 884 square foot residential building (the Building) constructed in 1925. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms on the first floor while the second floor contains two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 7, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- 12"x12" Vinyl Tile
- Drywall
- Plaster

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

Hazardous Materials Inspection

On April 7, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 7, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- SE Bedroom (1 register, 10 sq. ft.)

Category I ACM

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

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 register, 10 sq. ft.)
- Kitchen (1 register, 10 sq. ft.)
- SE Bedroom (1 register, 10 sq. ft.)

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

Hazardous Materials

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

- Automobile Tires (12)
- Thermostat (1)
- Gallon Container Misc. Paint (14)

REGULATORY REQUIREMENTS

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

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-262-0015-00

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-262-0015-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 01 Cust. #: HS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 63845 - 01a Cust. #: HS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 63845 - 01b Cust. #: HS-HM-01A Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 02 Cust. #: HS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 63845 - 02a Cust. #: HS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 63845 - 02b Cust. #: HS-HM-01B Material: Tar Paper Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 03 Cust. #: HS-HM-02A Material: White 12x12 Vinyl Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63845 - 03a Cust. #: HS-HM-02A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63845 - 04 Cust. #: HS-HM-02B Material: White 12x12 Vinyl Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 04a Cust. #: HS-HM-02B Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63845 - 05 Cust. #: HS-HM-03A Material: Drywall Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63845 - 05a Cust. #: HS-HM-03A Material: Joint Compound Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 06 Cust. #: HS-HM-03B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63845 - 07 Cust. #: HS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63845 - 07a Cust. #: HS-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:

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

ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 08 Cust. #: HS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63845 - 08a Cust. #: HS-HS-01B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 63845 - 09 Cust. #: HS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 150 Harrison Blvd.

Report To:
Mr. Aaron Paquet
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P.O. Box 13216
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ARI Report # 16-63845
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63845 - 09a Cust. #: HS-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
 Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-7-16

Project: 150 Harrison Blvd.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

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

Rush 24 hour
 48 hour 72 hour

Other: 5 Day RTT

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ Biosis _____ Other _____ Viable _____
 TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	HS-KM-014	Asphalt Shingle			
2	HS-KM-01B	Asphalt Shingle			
3	HS-KM-02A	White 12x12 Vinyl Tile			
4	HS-KM-02B	White 12x12 Vinyl Tile			
5	HS-KM-03A	Drywall			
6	HS-KM-03B	Drywall			
7	HS-KS-01A	Plaster			
8	HS-KS-01B				
9	HS-KS-01C				

Relinquished by: [Signature] Received by: URS
 Date: 4-7-16 Date: 4-7-16

Relinquished by: _____ Received by: [Signature]
 Date: _____ Date: APR 08 2016

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 150 Harrison Blvd., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Automobile Tires	12
Dining	Thermostat	1
Kitchen	Gallon Container Misc. Paint	14

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 150 Harrison Blvd., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
HS-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
HS-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
HS-HM-02A	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
HS-HM-02B	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
HS-HM-03A	Drywall	No	M	Category II	ND/ND	Living Wall	NA
HS-HM-03B	Drywall	No	M	Category II	ND	Kitchen Wall	NA
HS-HS-01A	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
HS-HS-01B	Plaster	No	S	Category II	ND/ND	2 nd Fl. W Bedroom Wall	NA
HS-HS-01C	Plaster	No	S	Category II	ND/ND	Kitchen Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 150 Harrison Blvd., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Living (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.) SE Bedroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	30 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 150 Harrison Blvd., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 10 sq. ft.) Kitchen (1 register, 10 sq. ft.) SE Bedroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	30 sq. ft.
	Total		30 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
214 Harrison Blvd., Muskegon Heights, MI 49444
Parcel ID: 26-635-256-0015-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 214 Harrison Blvd., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .115 acre residential parcel which contains a 216 sq. ft. attached garage and approximate 720 square foot residential building (the Building) constructed in 1915. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with fiber lap siding over wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, two bedrooms and a rear entry.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 7, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Fiber Lap Siding
- Rolled Roofing
- 9"x9" Vinyl Tile
- 1'x1' Ceiling Tile
- Fiberboard
- Glazing
- Linoleum
- Plaster

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

Hazardous Materials Inspection

On April 7, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

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

No friable ACM's were identified during the completion of this inspection.

Category I ACM

One type of resilient floor covering (Beige 9"x9"Vinyl Tile) located within the center bedroom and rear entry was found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material on April 7, 2016 identified approximately 80 sq. ft. of this material within the Building.

Rolled roofing samples collected during the completion of the inspection were found to contain up to 5% Chrysotile asbestos. The assessment to quantify the extent of this material on April 7, 2016 identified 346 sq. ft. of rolled roofing materials on the Building.

Category II ACM

Plaster samples, collected from the Living Room were each found to contain up to 2% asbestos following analysis. The assessment to quantify the extent of this material completed on April 7, 2016 identified approximately 1,260 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

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

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

Hazardous Materials

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

- Gallon Container Misc. Paint (6)

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-256-0015-00

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-256-0015-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 214 Harrison Blvd.

Report To:

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

ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 01 Cust. #: HA-HM-01A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63843 - 01a Cust. #: HA-HM-01A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63843 - 01b Cust. #: HA-HM-01A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 214 Harrison Blvd.

Report To:

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

ARI Report # 16-63843
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/14/16
 Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 01c Cust. #: HA-HM-01A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63843 - 02 Cust. #: HA-HM-01B Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63843 - 02a Cust. #: HA-HM-01B Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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 Lansing, MI 48901

ARI Report # 16-63843
 Date Collected: 04/07/16
 Date Received: 04/08/16
 Date Analyzed: 04/14/16
 Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 03 Cust. #: HA-HM-02A Material: Fiberlap Siding Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Other - 35%
Lab ID #: 63843 - 04 Cust. #: HA-HM-02B Material: Fiberlap Siding Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 65% Other - 35%
Lab ID #: 63843 - 05 Cust. #: HA-HM-03A Material: Rolled Roofing Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Cellulose - 30% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

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Lansing, MI 48901

ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 06 Cust. #: HA-HM-03B Material: Rolled Roofing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 63843 - 07 Cust. #: HA-HM-04A Material: 9x9 Beige Vinyl Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 3	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63843 - 07a Cust. #: HA-HM-04A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 214 Harrison Blvd.

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ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 07b Cust. #: HA-HM-04A Material: Flooring Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 63843 - 08 Cust. #: HA-MH-04B Material: 9x9 Beige Vinyl Tile Location: Appearance: Layer: 1 of 3	Asbestos Present: NOT ANALYZED	
Lab ID #: 63843 - 08a Cust. #: HA-MH-04B Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 08b Cust. #: HA-MH-04B Material: Flooring Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 63843 - 09 Cust. #: HA-HM-05A Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 63843 - 10 Cust. #: HA-HM-05B Material: 1x1 White Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

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

Robert T. Letarte Jr., Laboratory Director

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Test Method, Polarized Light Microscopy (PLM)

Project: 214 Harrison Blvd.

Report To:

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Lansing, MI 48901

ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 11 Cust. #: HA-HM-06A Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 63843 - 12 Cust. #: HA-HM-06B Material: Fiberboard Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 63843 - 13 Cust. #: HA-HM-07A Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 14 Cust. #: HA-HM-07B Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63843 - 15 Cust. #: HA-HM-08A Material: Old Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 63843 - 16 Cust. #: HA-HM-08B Material: Old Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 214 Harrison Blvd.

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ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 17 Cust. #: HA-HS-01A Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63843 - 17a Cust. #: HA-HS-01A Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 2%	Cellulose - 2% Other - 96%
Lab ID #: 63843 - 18 Cust. #: HA-HS-01B Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 214 Harrison Blvd.

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

ARI Report # 16-63843
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63843 - 18a Cust. #: HA-HS-01B Material: Base Coat Location: Appearance: Layer: 2 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 63843 - 19 Cust. #: HA-HS-01C Material: Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63843 - 19a Cust. #: HA-HS-01C Material: Base Coat Location: Appearance: Layer: 2 of 2	Asbestos Present: NOT ANALYZED	

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

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NVLAP Lab Code 102118-0

63843

ARLVA Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

E-mail: apexresearch@chartermi.net

Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-7-16

Project: 214 Harrison Blvd

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) P1M EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day FTP

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BIOSIS _____ Other _____ Viable _____
TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	HA-WM-01A	Grey Shingle			
2	HA-WM-01B	Grey Shingle			
3	HA-WM-02A	Fiber-lap Siding			
4	HA-WM-02B	Fiber-lap Siding			
5	HA-WM-03A	Rolls Roofing			
6	HA-WM-03B	Rolls Roofing			
7	HA-WM-04A	Beige gk a vinyl tile			
8	HA-WM-04B	Beige gk a vinyl tile			
9	HA-WM-05A	White vt Ceiling tile			
10	HA-WM-05B	White vt Ceiling tile			
11	HA-WM-06A	Fiberboard			

Relinquished by: [Signature] Date: 4-7-16

Received by: URS Date: 4-7-16

Relinquished by: _____ Date: _____

Received by: [Signature] Date: APR 08 2016

RECEIVED

63843

Pg 2 of 2

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Date of Survey: 4-7-16

Address: PO Box 13216

Project: 214 Harrison Blvd.

City, St., Zip: Lansing, MI 48901

Project #:

Phone: (888) 449-4566 Fax: (888) 448-8739

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: STP PTP

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	HA-THM-0615	Fiber board			
13	HA-THM-07A	Ceiling			
14	HA-THM-07B	Ceiling			
15	HA-THM-08A	old Linoleum			
16	HA-THM-08B	old Linoleum			
17	HA-118-01A	Plaster			
18	HA-118-01B	↓			
19	HA-118-01C	↓			

Lab Use Only
Log-In _____
Report _____

Relinquished by: Chartemi Received by: WPS

Relinquished by: _____

Received by: WPS
APR 08 2016

Date: 4-7-16

Date: 4-7-16

Date: _____

Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 214 Harrison Blvd., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Bedroom	Gallon Container Misc. Paint	6

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 214 Harrison Blvd., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
HA-HM-01A	Gray Shingle	No	M	Category I	ND/ND/ND/ND	Exterior	NA
HA-HM-01B	Gray Shingle	No	M	Category I	ND/ND	Exterior	NA
HA-HM-02A	Fiber Lap Siding	Yes	M	Category II	ND	Exterior	NA
HA-HM-02B	Fiber Lap Siding	Yes	M	Category II	ND	Exterior	NA
HA-HM-03A	Rolled Roofing	No	M	Category I	5%CH	Garage Exterior	346 sq. ft.
HA-HM-03B	Rolled Roofing	No	M	Category I	NA	Garage Exterior	NA
HA-HM-04A	Beige 9"x9" Vinyl Tile	No	M	Category I	5%CH/ND/ND	Center Bedroom	80 sq. ft.
HA-HM-04B	Beige 9"x9" Vinyl Tile	No	M	Category I	NA/ND/ND	Rear Entry	NA
HA-HM-05A	White 1'x1' Ceiling Tile	Yes	M	Category II	ND	Living Ceiling	NA
HA-HM-05B	White 1'x1' Ceiling Tile	Yes	M	Category II	ND	Living Ceiling	NA
HA-HM-06A	Fiberboard	Yes	M	Category II	ND	Bathroom Wall	NA
HA-HM-06B	Fiberboard	Yes	M	Category II	ND	Bathroom Wall	NA
HA-HM-07A	Glazing	Yes	M	Category II	ND	Living	NA
HA-HM-07B	Glazing	Yes	M	Category II	ND	Living	NA
HA-HM-08A	Old Linoleum	No	M	Category I	ND	Bathroom	NA
HA-HM-08B	Old Linoleum	No	M	Category I	ND	Bathroom	NA
HA-HS-01A	Plaster	No	S	Category II	ND/2%CH	Living Wall	1,260 sq. ft.
HA-HS-01B	Plaster	No	S	Category II	ND/NA	Kitchen Wall	NA
HA-HS-01C	Plaster	No	S	Category II	ND/NA	Living Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 214 Harrison Blvd., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 214 Harrison Blvd., Muskegon Heights, Michigan

Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Garage Exterior	Rolled Roofing	No	346 sq. ft.
Total			346 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Center Bedroom/Rear Entry	Beige 9"x9" Vinyl Tile	No	80 sq. ft.
Total			80 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Interior	Wall Plaster	No	816 sq. ft.
Building Interior	Ceiling Plaster	No	444 sq. ft.
Total			1,260 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
276 Harrison Blvd., Muskegon Heights, MI 49444
Parcel ID: 26-635-253-0021-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 276 Harrison Blvd., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .115 acre residential parcel which contains an approximate 616 square foot residential building (the Building) constructed in 1953. The Building was constructed on a concrete crawl space with one aboveground floor. The exterior walls of the Building were finished with vinyl lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom, two bedrooms and a rear entry.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on April 7, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Felt Paper
- Drywall
- Glazing

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

Hazardous Materials Inspection

On April 7, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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.

No PACM was identified during the completion of this inspection. All suspect materials identified were sampled and analyzed for ACM.

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

No friable ACM’s were identified during the completion of this inspection.

Category I ACM

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

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

No ACM was identified within the Building that would require abatement prior to demolition/renovation of the structure.

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

Hazardous Materials

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

- Automobile Tires (16)

REGULATORY REQUIREMENTS

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

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

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

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

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-253-0021-00

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 276 Harrison Blvd

Report To:

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

ARI Report # 16-63846
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63846 - 01 Cust. #: BL-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63846 - 01a Cust. #: BL-HM-01A Material: Green Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63846 - 01b Cust. #: BL-HM-01A Material: Felt Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 276 Harrison Blvd

Report To:

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

ARI Report # 16-63846
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63846 - 02 Cust. #: BL-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63846 - 02a Cust. #: BL-HM-01B Material: Green Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63846 - 02b Cust. #: BL-HM-01B Material: Felt Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 276 Harrison Blvd

Report To:

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

ARI Report # 16-63846
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63846 - 03 Cust. #: BL-HM-02A Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63846 - 04 Cust. #: BL-HM-02B Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63846 - 05 Cust. #: BL-HM-03A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 276 Harrison Blvd

Report To:

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

ARI Report # 16-63846
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/13/16
Date Reported: 04/15/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63846 - 06 Cust. #: BL-HM-03B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63846 - 07 Cust. #: BL-HM-04A Material: Glazing Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63846 - 08 Cust. #: BL-HM-04B Material: Glazing Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

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

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



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

Date of Survey: 4-7-16
 Project: 276 Harrison Blvd
 Project #: _____
 Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

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

Rush 24 hour
 48 hour 72 hour
 Other: Steery TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BL-4m-01A	Asphalt Shingle			
2	BL-4m-01B	Asphalt Shingle			
3	BL-4m-02A	Felt Paper			
4	BL-4m-02B	Felt Paper			
5	BL-4m-03A	Drywall			
6	BL-4m-03B	Drywall			
7	BL-4m-04A	Coatings			
8	BL-4m-04B	Coatings			

Relinquished by: Am Paquet Received by: URS
 Date: 4-7-16 Date: 4-7-16

Relinquished by: _____ Received by: Am Paquet
 Date: _____ Date: APR 08 2016

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 276 Harrison Blvd., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	12
Dining	Automobile Tires	4

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 276 Harrison Blvd., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
BL-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
BL-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
BL-HM-02A	Felt Paper	Yes	M	Category II	ND	Bathroom	NA
BL-HM-02B	Felt Paper	Yes	M	Category II	ND	Kitchen	NA
BL-HM-03A	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
BL-HM-03B	Drywall	No	M	Category II	ND	Living Wall	NA
BL-HM-04A	Glazing	Yes	M	Category II	ND	Living	NA
BL-HM-04B	Glazing	Yes	M	Category II	ND	W Bedroom	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 276 Harrison Blvd., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
No Presumed Asbestos Containing Materials Identified					

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 276 Harrison Blvd., Muskegon Heights, Michigan

Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
No Asbestos Containing Materials Identified			

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2121 Sanford St., Muskegon Heights, MI 49444
Parcel ID: 26-185-052-0006-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2121 Sanford St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 1,252 square foot residential building (the Building) constructed in 1911. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with Transite over felt paper while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bath, and a bedroom on the first floor while the second floor contains three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 12, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Felt Paper
- Glazing
- 12"x12" Vinyl Tile
- Linoleum
- Drywall

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

Hazardous Materials Inspection

On April 12, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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 and the Cementitious “Transite” Siding on 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

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 April 12, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Dining (1 register, 1 sq. ft.)
- 2nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)

Category I ACM

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

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material completed on April 12, 2016 identified 2,335 sq. ft. of cementitious (Transite) siding on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- Dining (1 register, 1 sq. ft.)
- 2nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-052-0006-00

Hazardous Materials

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

- Thermostat (1)
- Smoke Detector (2)
- Automobile Tires (25+)

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-052-0006-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 01 Cust. #: SS-HM-01A Material: Asphalt Siding - Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63993 - 01a Cust. #: SS-HM-01A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63993 - 01b Cust. #: SS-HM-01A Material: Felt Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 02 Cust. #: SS-HM-01B Material: Asphalt Siding - Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63993 - 02a Cust. #: SS-HM-1B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63993 - 02b Cust. #: SS-HM-01B Material: Felt Location: Appearance: black, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 03 Cust. #: SS-HM-02A Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63993 - 04 Cust. #: SS-HM-02B Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63993 - 05 Cust. #: SS-HM-03A Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 06 Cust. #: SS-HM-3B Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%
Lab ID #: 63993 - 07 Cust. #: SS-HM-04A Material: 12x12 Brown Vinyl Tile Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63993 - 07a Cust. #: SS-HM-04A Material: Mastic Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 08 Cust. #: SS-HM-04B Material: 12x12 Brown Vinyl Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63993 - 08a Cust. #: SS-HM-04B Material: Mastic Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63993 - 09 Cust. #: SS-HM-05A Material: Black/White Linoleum Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 09a Cust. #: SS-HM-05A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63993 - 10 Cust. #: SS-HM-05B Material: Black/White Linoleum Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63993 - 10a Cust. #: SS-HM-05B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

Report To:

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 11 Cust. #: SS-HM-06A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Fiberglass - 10% Other - 88%
Lab ID #: 63993 - 12 Cust. #: SS-HM-06B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Fiberglass - 10% Other - 88%
Lab ID #: 63993 - 13 Cust. #: SS-HM-07A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2121 Sanford St.

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

ARI Report # 16-63993
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63993 - 14 Cust. #: SS-HM-07B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63993 - 14a Cust. #: SS-HS-07B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990
 E-mail: apexresearch@charterminet Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-12-16

Project: 2121 Sanford St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
 48 hour 72 hour
 Other: 5 Day (TTP)

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BIOSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	SS-WM-01A	Asphalt Shingle			
2	SS-WM-01B	Asphalt Shingle			
3	SS-WM-01A	Felt Paper			
4	SS-WM-02B	Felt Paper			
5	SS-WM-03A	ceiling			
6	SS-WM-03B	ceiling			
7	SS-WM-04A	Brown Drywall-shingle tile			
8	SS-WM-04B	Brown Drywall-shingle tile			
9	SS-WM-05A	Black/white Linoleum			
10	SS-WM-05B	Black/white Linoleum			
11	SS-WM-06A	Black/white Linoleum <u>Redwood beams</u>			

Relinquished by: [Signature]

Received by: [Signature]

Date: 4-12-16

Date: 4-12-16

Relinquished by: _____

Received by: [Signature]

Date: _____

Date: AFR 13 2016

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 2121 Sanford St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Dining	Thermostat	1
Bedroom	Smoke Detector	1
Dining	Automobile Tire	1
2 nd Floor E Bedroom	Smoke Detector	2
Basement Stairwell	Automobile Tires	24+

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2121 Sanford St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
SS-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
SS-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND/ND	Exterior	NA
SS-HM-02A	Felt Paper	Yes	M	Category II	ND	Exterior	NA
SS-HM-02B	Felt Paper	Yes	M	Category II	ND	Exterior	NA
SS-HM-03A	Glazing	Yes	M	Category II	ND	Living	NA
SS-HM-03B	Glazing	Yes	M	Category I	ND	Living	NA
SS-HM-04A	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
SS-HM-04B	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
SS-HM-05A	Black/White Linoleum	No	M	Category I	ND/ND	Bathroom	NA
SS-HM-05B	Black/White Linoleum	No	M	Category I	ND/ND	Bathroom	NA
SS-HM-06A	Beige Linoleum	No	M	Category I	ND	Bedroom	NA
SS-HM-06B	Beige Linoleum	No	M	Category I	ND	Bedroom	NA
SS-HM-07A	Drywall	No	M	Category II	ND	Living Wall	NA
SS-HM-07B	Drywall	No	M	Category II	ND/ND	2 nd Fl. S Bedroom Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2121 Sanford St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Building Exterior	Transite Siding	No	Fair	M	2,335 sq. ft.
Dining (1 register, 1 sq. ft.) 2 nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	80 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2121 Sanford St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Dining (1 register, 1 sq. ft.) 2 nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	80 sq. ft.
Total			80 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)	HVAC Duct Wrap	Yes	10 lin. ft.
Total			10 lin. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	2,335 sq. ft.
Total			2,335 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2201 Sanford St., Muskegon Heights, MI 49444
Parcel ID: 26-185-072-0001-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2201 Sanford St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 2,490 square foot residential building (the Building) constructed in 1925. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with aluminum lap over old stucco which was over wood lath while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom, two bedrooms and rear entry on the first floor while the second floor is under construction.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-072-0001-00

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 12, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Linoleum
- 9"x9" Vinyl Tile
- Glazing
- Drywall
- Stucco
- Plaster

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

Hazardous Materials Inspection

On April 12, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 12, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (2 registers, 30 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- SE Bedroom (1 register, 15 sq. ft.)
- SW Bedroom (1 register, 15 sq. ft.)
- Sunroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on framing by Furnace, 20 sq. ft.)

Category I ACM

Two types of resilient floor covering (Beige 9"x9" Vinyl Tile and Red 9"x9" Vinyl Tile) located within the rear entry were found to contain up to 10% Chrysotile asbestos. The assessment to quantify the extent of this material on April 12, 2016 identified approximately 490 sq. ft. of this material within the Building.

Category II ACM

Stucco samples, collected from the exterior of the Building, were each found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material completed on April 12, 2016 identified approximately 2,640 sq. ft. of Stucco on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (2 registers, 30 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- SE Bedroom (1 register, 15 sq. ft.)
- SW Bedroom (1 register, 15 sq. ft.)
- Sunroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on framing by Furnace, 20 sq. ft.)

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-072-0001-00

The Category I resilient floor coverings (Beige 9"x9" Vinyl Tile and Red 9"x9" Vinyl Tile) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

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

Hazardous Materials

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

- Smoke Detector (1)

REGULATORY REQUIREMENTS

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

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

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

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

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

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-072-0001-00

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2201 Sanford St.

Report To:

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

ARI Report # 16-63992
Date Collected: 04/12/16
Date Received: 04/13/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 01 Cust. #: ST-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63992 - 02 Cust. #: ST-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63992 - 03 Cust. #: ST-HM-02A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



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ARI Report # 16-63992
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 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 04 Cust. #: ST-HM-02B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 10% Other - 90%
Lab ID #: 63992 - 05 Cust. #: ST-HM-03A Material: 9x9 Beige Vinyl Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 1.5% POINT COUNT RESULT	Other - 98.5%
Lab ID #: 63992 - 05a Cust. #: ST-HM-03A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 06 Cust. #: ST-HM-03B Material: 9x9 Beige Vinyl Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 63992 - 06a Cust. #: ST-HM-03B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 07 Cust. #: ST-HM-04A Material: Black/White Linoleum Location: Appearance: black,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%

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Robert T. Letarte Jr., Laboratory Director

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 Date Collected: 04/12/16
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 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 08 Cust. #: ST-HM-04B Material: Black/White Linoleum Location: Appearance: black, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 10% Other - 70%
Lab ID #: 63992 - 09 Cust. #: ST-HM-05A Material: 9x9 Red Vinyl Tile Location: Appearance: red, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%
Lab ID #: 63992 - 09a Cust. #: ST-HM-05A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 10 Cust. #: ST-HM-05B Material: 9x9 Red Vinyl Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 63992 - 10a Cust. #: ST-HM-05B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 11 Cust. #: ST-HM-06A Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 12 Cust. #: ST-HM-06B Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 13 Cust. #: ST-HM-07A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63992 - 14 Cust. #: ST-HM-07B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 14a Cust. #: ST-HM-07B Material: Joint Compound Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 15 Cust. #: ST-HS-01A Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63992 - 16 Cust. #: ST-HS-01B Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 17 Cust. #: ST-HS-01C Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63992 - 18 Cust. #: ST-HS-01D Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63992 - 19 Cust. #: ST-HS-01E Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 20 Cust. #: ST-HS-02A Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 20a Cust. #: ST-HS-02A Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 63992 - 21 Cust. #: ST-HS-02B Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 21a Cust. #: ST-HS-02B Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 21b Cust. #: ST-HS-02B Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 63992 - 22 Cust. #: ST-HS-02C Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 22a Cust. #: ST-HS-02C Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 63992 - 23 Cust. #: ST-HS-02D Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 23a Cust. #: ST-HS-02D Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

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Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63992 - 24 Cust. #: ST-HS-02E Material: Texture Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 24a Cust. #: ST-HS-02E Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63992 - 24b Cust. #: ST-HS-02E Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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NVLAP Lab Code 102118-0

63992

pg 1 of 3

APEX Research, Inc.



11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

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

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-12-16

Project: 2201 Sanford St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) P1M EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: SDay ITP Except Plaster & Stoves TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	ST-4M-01A	Asphalt Shingle			
2	ST-4M-01B	Asphalt Shingle			
3	ST-4M-02A	Beige Linoleum			
4	ST-4M-02B	Beige Linoleum			
5	ST-4M-03A	Beige ceramic Vinyl Tile			
6	ST-4M-03B	Beige ceramic Vinyl Tile			
7	ST-4M-04A	Black & White Linoleum			
8	ST-4M-04B	Black & White Linoleum			
9	ST-4M-05A	Red ceramic Vinyl Tile			
10	ST-4M-05B	Red ceramic Vinyl Tile			
11	ST-4M-05A	Coloring			

RECEIVED

Relinquished by: [Signature] Received by: URS

Date: 4-12-16 Date: 4-12-16

Relinquished by: _____

Date: _____

Received by: [Signature] 11:20

Date: APR 13 2016

63992

pg 2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990



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

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-12-16

Project: 2201 Sandoz St

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: Slurry PTP Except Plaster & Stucco.
Mold: Bulk _____ Tape _____ Bulk/NOB _____ EPA Level II _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Asbestos: Bulk x Wipe _____ Point Count _____ PCM _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	ST-WM-06B	ceilings			
13	ST-WM-07A	dry wall			
14	ST-WM-07B	dry wall			
15	ST-WB-01A	stucco			
16	ST-WB-01B				
17	ST-WB-01C				
18	ST-WB-01D				
19	ST-WB-01E				
20	ST-WB-02A	Plaster			
21	ST-WB-02B				
22	ST-WB-02C				

Relinquished by: [Signature]

Received by: [Signature]

Date: 4-12-16

Date: 4-12-16

Relinquished by: _____

Received by: [Signature]

Date: _____

Date: APR 13 2016

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 2201 Sanford St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Living	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2201 Sanford St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
ST-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-02A	Beige Linoleum	No	M	Category I	ND	Bathroom	NA
ST-HM-02B	Beige Linoleum	No	M	Category I	ND	Bathroom	NA
ST-HM-03A	Beige 9"x9" Vinyl Tile	No	M	Category I	1.5%CH/ND	SE Bedroom	442 sq. ft.
ST-HM-03B	Beige 9"x9" Vinyl Tile	No	M	Category I	ND/ND	SE Bedroom	NA
ST-HM-04A	Black & White Linoleum	No	M	Category I	ND	Rear Entry	NA
ST-HM-04B	Black & White Linoleum	No	M	Category I	ND	Rear Entry	NA
ST-HM-05A	Red 9"x9" Vinyl Tile	No	M	Category I	10%CH/ND	Rear Entry Stairwell	48 sq. ft.
ST-HM-05B	Red 9"x9" Vinyl Tile	No	M	Category I	NA/ND	Rear Entry Stairwell	NA
ST-HM-06A	Glazing	Yes	M	Category II	ND	Living	NA
ST-HM-06B	Glazing	Yes	M	Category II	ND	Living	NA
ST-HM-07A	Drywall	No	M	Category II	ND	SE Bedroom Wall	NA
ST-HM-07B	Drywall	No	M	Category II	ND/ND	2 nd Fl. Center Bedroom	NA
ST-HS-01A	Stucco	No	S	Category II	5%CH	Exterior W Wall	2,640 sq. ft.
ST-HS-01B	Stucco	No	S	Category II	5%CH	Exterior S Wall	See Sample ST-HS-01A
ST-HS-01C	Stucco	No	S	Category II	5%CH	Exterior E Wall	See Sample ST-HS-01A
ST-HS-01D	Stucco	No	S	Category II	5%CH	Exterior NE Wall	See Sample ST-HS-01A
ST-HS-01E	Stucco	No	S	Category II	5%CH	Exterior NW Wall	See Sample ST-HS-01A
ST-HS-02A	Plaster	No	S	Category II	ND/ND	SE Bedroom Wall	NA
ST-HS-02B	Plaster	No	S	Category II	ND/ND/ND	SW Bedroom Wall	NA
ST-HS-02C	Plaster	No	S	Category II	ND/ND	Hallway Wall	NA
ST-HS-02D	Plaster	No	S	Category II	ND/ND	Dining Ceiling	NA
ST-HS-02E	Plaster	No	S	Category II	ND/ND/ND	Living Ceiling	NA

Notes:

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2201 Sanford St., Muskegon Heights, Michigan

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2201 Sanford St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Living (2 registers, 30 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) SE Bedroom (1 register, 15 sq. ft.) SW Bedroom (1 register, 15 sq. ft.) Sunroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Framing by Furnace, 20 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	125 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2201 Sanford St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
SE Bedroom	Beige 9"x9" Vinyl Tile	No	192 sq. ft.
SW Bedroom	Beige 9"x9" Vinyl Tile	No	130 sq. ft.
Hallway	Beige 9"x9" Vinyl Tile	No	120 sq. ft.
Rear Entry Stairwell	Red 9"x9" Vinyl Tile	No	48 sq. ft.
Total			490 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (2 registers, 30 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) SE Bedroom (1 register, 15 sq. ft.) SW Bedroom (1 register, 15 sq. ft.) Sunroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on framing by Furnace, 20 sq. ft.)	HVAC Duct Wrap	Yes	125 sq. ft.
Total			125 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Stucco	No	2,640 sq. ft.
Total			2,640 sq. ft.

Notes:

Abbreviations

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

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

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

Table 4 - Summary of All Asbestos Containing Materials, 2201 Sanford St., Muskegon Heights, Michigan

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2329 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-096-0008-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2329 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains a 488 sq. ft. detached garage and approximate 1,215 square foot residential building (the Building) constructed in 1925. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a front entry, living room, dining room, kitchen, bathroom and two bedrooms on the first floor while the second floor contains two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 8, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Fiber Lap Siding
- Glazing
- Linoleum
- Drywall
- 9"x9" Vinyl Tile
- Plaster

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

Hazardous Materials Inspection

On April 8, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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

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

Presumed Asbestos Containing Material

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

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

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

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

Friable ACM's

A window glazing sample collected from a window in the Garage was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material on April 8, 2016 identified four windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Garage (4 windows 21" wide x 30" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material completed on April 8, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- E Bedroom (1 register, 15 sq. ft.)
- W Bedroom (1 register, 15 sq. ft.)
- 2nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

Two types of resilient floor covering (Yellow Linoleum and Beige 9"x9" Vinyl Tile) located within the kitchen were found to contain up to 30% Chrysotile asbestos. The assessment to quantify the extent of this material on April 8, 2016 identified approximately 457 sq. ft. of this material within the Building.

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- E Bedroom (1 register, 15 sq. ft.)
- W Bedroom (1 register, 15 sq. ft.)
- 2nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

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

- Garage (4 windows 21" wide x 30" tall)

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

The Category I resilient floor coverings (Yellow Linoleum and Beige 9”x9” Vinyl Tile) are non-friable ACM’s that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

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

Hazardous Materials

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

- Television (3)
- Thermostat (1)
- Automobile Tires (16)
- Smoke Detector (1)

REGULATORY REQUIREMENTS

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

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

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

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-096-0008-00

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 01 Cust. #: BS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63874 - 02 Cust. #: BS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63874 - 03 Cust. #: BS-HM-02A Material: Fiberlap Siding Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 04 Cust. #: BS-HM-02B Material: Fiberlap Siding Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 63874 - 05 Cust. #: BS-HM-03A Material: Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63874 - 06 Cust. #: BS-HM-03B Material: Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 07 Cust. #: BS-HM-04A Material: Yellow Linoleum Location: Appearance: yellow, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 30%	Other - 70%
Lab ID #: 63874 - 08 Cust. #: BS-HM-04B Material: Yellow Linoleum Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 63874 - 09 Cust. #: BS-HM-05A Material: Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 10 Cust. #: BS-HM-05B Material: Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 5% Other - 95%
Lab ID #: 63874 - 11 Cust. #: BS-HM-06A Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63874 - 12 Cust. #: BS-HM-06B Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 13 Cust. #: BS-HM-07A Material: Green Linoleum Location: Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63874 - 14 Cust. #: BS-HM-07B Material: Green Linoleum Location: Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63874 - 15 Cust. #: BS-HM-08A Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 16 Cust. #: BS-HM-08B Material: Beige Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63874 - 17 Cust. #: BS-HM-09A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63874 - 18 Cust. #: BS-HM-09B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



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Project: 2329 Baker St

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 19 Cust. #: BS-HM-10A Material: Beige 9x9 Vinyl Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63874 - 19a Cust. #: BS-HM-10A Material: Mastic Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 20 Cust. #: BS-HM-10B Material: Beige 9x9 Vinyl Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

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Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 20a Cust. #: BS-HM-10B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 21 Cust. #: BS-HS-01A Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 21a Cust. #: BS-HS-01A Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 22 Cust. #: BS-HS-01B Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 22a Cust. #: BS-HS-01B Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 63874 - 23 Cust. #: BS-HS-01C Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

Report To:

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 23a Cust. #: BS-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: 63874 - 24 Cust. #: BS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 24a Cust. #: BS-HS-01D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 2% Other - 97%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2329 Baker St

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

ARI Report # 16-63874
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63874 - 25 Cust. #: BS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63874 - 25a Cust. #: BS-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Hair - 2% Other - 96%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

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



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

Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2329 Baker-St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

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

Rush 24 hour
48 hour 72 hour

Other: Stibery TRP Except Plaster
Mold: _____ Bulk: _____ Tape: _____ Other: _____ Viable: _____
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BS-WM-01A	Asphalt Shingle			
2	BS-WM-01B	Asphalt Shingle			
3	BS-WM-02A	Fiberloop Siding			
4	BS-WM-02B	Fiberloop Siding			
5	BS-WM-03A	Gazling			
6	BS-WM-03B	Gazling			
7	BS-WM-04A	Yellow Linoleum			
8	BS-WM-04B	Yellow Linoleum			
9	BS-WM-05A	Gazling			
10	BS-WM-05B				
11	BS-WM-08A	↓			

RECEIVED

Relinquished by: Levin Poynt Received by: WPS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____ Received by: WPS 11:20

Date: _____ Date: _____

63874

Page 2 of 3

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2329 Baker St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

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

Rush 24 hour

48 hour 72 hour

Other: Spray Except Plaster
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	BS-WM-06B	Coating			
13	BS-WM-07A	Green Linoleum			
14	BS-WM-07B	Green Linoleum			
15	BS-WM-08A	Beige Linoleum			
16	BS-WM-08B	Beige Linoleum			
17	BS-WM-09A	Drywall			
18	BS-WM-09B	Drywall			
19	BS-WM-10A	Beige quarry tile			
20	BS-WM-10B	Beige quarry tile			
21	BS-148-01A	Plaster			
22	BS-148-01B	Plaster			

RECEIVED

Relinquished by: Clamp Copart Received by: UTS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____ Received by: Amg

Date: _____ Date: APR 11 2016

Tables

Table 1 - Summary of Hazardous Materials, 2329 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Television	2
Dining	Thermostat	1
Rear Entry	Television	1
Rear Entry	Automobile Tires	2
Basement	Smoke Detector	1
Basement	Automobile Tires	14

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2329 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
BS-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
BS-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
BS-HM-02A	Fiber Lap Siding	Yes	M	Category II	ND	Garage Exterior	NA
BS-HM-02B	Fiber Lap Siding	Yes	M	Category II	ND	Garage Exterior	NA
BS-HM-03A	Glazing	Yes	M	Category II	5%CH	Garage	4 Windows
BS-HM-03B	Glazing	Yes	M	Category II	NA	Garage	NA
BS-HM-04A	Yellow Linoleum	No	M	Category I	30%CH	Bathroom	64 sq. ft.
BS-HM-04B	Yellow Linoleum	No	M	Category I	NA	Bathroom	NA
BS-HM-05A	Glazing	Yes	M	Category II	ND	Front Entry	NA
BS-HM-05B	Glazing	Yes	M	Category II	ND	Front Entry	NA
BS-HM-06A	Glazing	Yes	M	Category II	ND	Dining	NA
BS-HM-06B	Glazing	Yes	M	Category II	ND	Dining	NA
BS-HM-07A	Green Linoleum	No	M	Category I	ND	2 nd Fl. Hallway	NA
BS-HM-07B	Green Linoleum	No	M	Category I	ND	2 nd Fl. Hallway	NA
BS-HM-08A	Beige Linoleum	No	M	Category I	ND	2 nd Fl. W Bedroom	NA
BS-HM-08B	Beige Linoleum	No	M	Category I	ND	2 nd Fl. W Bedroom	NA
BS-HM-09A	Drywall	No	M	Category II	ND	2 nd Fl. Hallway Ceiling	NA
BS-HM-09B	Drywall	No	M	Category II	ND	2 nd Fl. E Bedroom Wall	NA
BS-HM-10A	Beige 9"x9" Vinyl Tile	No	M	Category I	5%CH/ND	Basement	393 sq. ft.
BS-HM-10B	Beige 9"x9" Vinyl Tile	No	M	Category I	NA/ND	Basement	NA
BS-HS-01A	Plaster	No	S	Category II	ND/ND	Living Wall	NA
BS-HS-01B	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	NA
BS-HS-01C	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
BS-HS-01D	Plaster	No	S	Category II	ND/ND	Dining Ceiling	NA
BS-HS-01E	Plaster	No	S	Category II	ND/ND	W Bedroom Ceiling	NA

Notes:

Material Types

Abbreviations

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2329 Baker St., Muskegon Heights, Michigan

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2329 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) E Bedroom (1 register, 15 sq. ft.) W Bedroom (1 register, 15 sq. ft.) 2 nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	95 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2329 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bathroom	Yellow Linoleum	No	64 sq. ft.
Basement	Beige 9"x9" Vinyl Tile	No	393 sq. ft.
Total			457 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) E Bedroom (1 register, 15 sq. ft.) W Bedroom (1 register, 15 sq. ft.) 2 nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	95 sq. ft.
Total			95 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Garage (4 windows 21" wide x 30" tall)	Glazing	Yes	4 Windows
Total			4 Windows

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2525 Leahy St., Muskegon Heights, MI 49444
Parcel ID: 26-185-147-0007-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2525 Leahy St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 815 square foot residential building (the Building) constructed in 1920. 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 asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on April 7, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- 12"x12" Vinyl Tile
- Drywall
- Glazing
- Plaster

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

Hazardous Materials Inspection

On April 7, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 7, 2016 identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Ductwork, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 38 lin. ft.)

Category I ACM

One type of resilient floor covering (Multilayer Vinyl Tile) located within the living room and dining room were found to contain up to 20% Chrysotile asbestos. The assessment to quantify the extent of this material on April 7, 2016 identified approximately 253 sq. ft. of this material within the Building.

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- Bathroom (1 register, 15 sq. ft.)
- Basement (misc. HVAC wrap on Cold Air Ductwork, 25 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 38 lin. ft.)

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

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

Hazardous Materials

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

- Smoke Detector (2)
- Television (17)

REGULATORY REQUIREMENTS

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-147-0007-00

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-147-0007-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2525 Leahy St

Report To:

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

ARI Report # 16-63878
Date Collected: 04/07/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 01 Cust. #: LS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63878 - 02 Cust. #: LS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63878 - 03 Cust. #: LS-HM-02A Material: Beige 12x12 Vinyl Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



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 Lansing, MI 48901

ARI Report # 16-63878
 Date Collected: 04/07/16
 Date Received: 04/11/16
 Date Analyzed: 04/17/16
 Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 03a Cust. #: LS-HM-02A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 04 Cust. #: LS-HM-02B Material: Beige 12x12 Vinyl Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 04a Cust. #: LS-HM-02B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Collected: 04/07/16
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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 05 Cust. #: LS-HM-03A Material: Top Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 05a Cust. #: LS-HM-03A Material: Linoleum/Mastic Location: Appearance: beige,fibrous,nonhomogenous Layer: 2 of 4	Asbestos Present: YES Chrysotile - 20%	Other - 80%
Lab ID #: 63878 - 05b Cust. #: LS-HM-03A Material: Grey Floor Tile Location: Appearance: grey,fibrous,homogenous Layer: 3 of 4	Asbestos Present: YES Chrysotile - 10%	Other - 90%

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Date Collected: 04/07/16
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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 05c Cust. #: LS-HM-03A Material: Backing/Mastic Location: Appearance: brown, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63878 - 06 Cust. #: LS-HM-03B Material: Top Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 06a Cust. #: LS-HM-03B Material: Linoleum/Mastic Location: Appearance: Layer: 2 of 4	Asbestos Present: NOT ANALYZED	

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 06b Cust. #: LS-HM-03B Material: Grey Floor Tile Location: Appearance: Layer: 3 of 4	Asbestos Present: NOT ANALYZED	
Lab ID #: 63878 - 06c Cust. #: LS-HM-03B Material: Backing/Mastic Location: Appearance: brown, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63878 - 07 Cust. #: LS-HM-04A Material: Brown 12x12 Vinyl Tile Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 07a Cust. #: LS-HM-04A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 08 Cust. #: LS-HM-04B Material: Brown 12x12 Vinyl Tile Location: Appearance: clear,fibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Synthetic - 1% Other - 99%
Lab ID #: 63878 - 08a Cust. #: LS-HM-04B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 08b Cust. #: LS-HM-04B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 09 Cust. #: LS-HM-05A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63878 - 10 Cust. #: LS-HM-05B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 11 Cust. #: LS-HM-06A Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 12 Cust. #: LS-HM-06B Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 13 Cust. #: LS-HS-01A Material: Plaster/Fiberboard/Mastic Location: Appearance: brown,fibrous,nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 70% Other - 30%

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

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Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 13a Cust. #: LS-HS-01A Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63878 - 13b Cust. #: LS-HS-01A Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Hair - 1% Other - 98%
Lab ID #: 63878 - 14 Cust. #: LS-HS-01B Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

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Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 14a Cust. #: LS-HS-01B Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 14b Cust. #: LS-HS-01B Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%
Lab ID #: 63878 - 15 Cust. #: LS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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 Date Analyzed: 04/17/16
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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 15a Cust. #: LS-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%
Lab ID #: 63878 - 16 Cust. #: LS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 16a Cust. #: LS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%

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Date Collected: 04/07/16
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Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63878 - 17 Cust. #: LS-HS-01E Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63878 - 17a Cust. #: LS-HS-01E Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63878 - 17b Cust. #: LS-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Vermiculite - 5% Other - 94%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-7-16

Project: 2525 Leahy St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In: _____
 Report: _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
 48 hour 72 hour

Other: 5 Day TTP Except For Plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	LS-4M-01A	Asphalt Shingle			
2	LS-4M-01B	Asphalt Shingle			
3	LS-4M-02A	Beige 12x12 vinyl tile			
4	LS-4M-02B	Beige 12x12 vinyl tile			
5	LS-4M-03A	Multicolor Vinyl tile			
6	LS-4M-03B	Multicolor Vinyl tile			
7	LS-4M-04A	Brown 12x12 vinyl tile			
8	LS-4M-04B	Brown 12x12 vinyl tile			
9	LS-4M-05A	Darkwood			
10	LS-4M-05B	Darkwood			
11	LS-4M-06A	Greenery			

RECEIVED

Received by: Amde (1:20)
 APR 11 2016

Relinquished by: [Signature]
 Date: 4-8-16

Received by: VPB
 Date: 4-8-16

Relinquished by: _____
 Date: _____

Received by: _____
 Date: _____

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

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Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

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Project: 2525 Leahy St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day Except for Plaster.

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	LS-14M-06B	Ceiling			
13	LS-14S-01A	Plaster			
14	LS-14S-01B	↓			
15	LS-14S-01C				
16	LS-14S-01D				
17	LS-14S-01E				

RECEIVED

Relinquished by: [Signature] Received by: URS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____ Received by: [Signature]

Date: _____ Date: APR 11 2016

Tables

Table 1 - Summary of Hazardous Materials, 2525 Leahy St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Front Porch	Television	1
Living	Television	9
E Bedroom	Television	5
Living	Smoke Detector	2
Basement	Television	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2525 Leahy St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
LS-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
LS-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
LS-HM-02A	Beige 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living	NA
LS-HM-02B	Beige 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living	NA
LS-HM-03A	Multilayer Vinyl Tile	No	M	Category I	ND/20%CH 10%CH/ND	Living	253 sq. ft.
LS-HM-03B	Multilayer Vinyl Tile	No	M	Category I	ND/NA/NA/ ND	Dining	NA
LS-HM-04A	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
LS-HM-04B	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND/ND	Bathroom	NA
LS-HM-05A	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
LS-HM-05B	Drywall	No	M	Category II	ND	E Bedroom Wall	NA
LS-HM-06A	Glazing	Yes	M	Category II	ND	Kitchen	NA
LS-HM-06B	Glazing	Yes	M	Category II	ND	Kitchen	NA
LS-HS-01A	Plaster	No	S	Category II	ND/ND/ND	Kitchen Wall	NA
LS-HS-01B	Plaster	No	S	Category II	ND/ND/ND	Dining Wall	NA
LS-HS-01C	Plaster	No	S	Category II	ND/ND	Living Wall	NA
LS-HS-01D	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
LS-HS-01E	Plaster	No	S	Category II	ND/ND/ND	Dining Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2525 Leahy St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) Bathroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Cold Air Ductwork, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	70 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 38 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	38 lin. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2525 Leahy St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living	Multilayer Vinyl Tile	No	132 sq. ft.
Dining	Multilayer Vinyl Tile	No	121 sq. ft.
Total			253 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) Bathroom (1 register, 15 sq. ft.) Basement (misc. HVAC wrap on Cold Air Ductwork, 25 sq. ft.)	HVAC Duct Wrap	Yes	70 sq. ft.
Total			70 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 38 lin. ft.)	HVAC Duct Wrap	Yes	38 lin. ft.
Total			38 lin. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2816 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-209-0016-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2816 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains a 400 sq. ft. detached garage and approximate 1,472 square foot residential building (the Building) constructed in 1905. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom, and two bedrooms on the first floor while the second floor contains two bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 8, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Rolled Roofing
- 12"x12" Vinyl Tile
- 16"x16" Ceiling Tile
- Glazing
- 9"x9" Vinyl Tile
- Linoleum
- Drywall
- Plaster

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

Hazardous Materials Inspection

On April 8, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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 Vermiculite 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

Vermiculite insulation was identified in the Building and classified as friable ACM. The visual assessment to quantify the extent of this material identified approximately 260 sq. ft. of this material at a depth of three inches within the Building.

Category I ACM

Two types of resilient floor covering (White 12"x12" Vinyl Tile and Black 9"x9" Vinyl Tile) located within the Building were found to contain up to 10% Chrysotile asbestos. The assessment to quantify the extent of this material on April 8, 2016 identified approximately 314 sq. ft. of this material within the Building.

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

The Category I resilient floor coverings (White 12"x12" Vinyl Tile and Black 9"x9" Vinyl Tile) are non-friable ACM's that may be left in place as long as the demolition/renovation activities are completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

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

Hazardous Materials

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

- Television (1)
- Automobile Tires (6)
- Smoke Detector (4)

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0016-00

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0016-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
 Date Collected: 04/08/16
 Date Received: 04/11/16
 Date Analyzed: 04/18/16
 Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 01 Cust. #: BA-HM-01A Material: Black Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63879 - 02 Cust. #: BA-HM-01B Material: Black Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 30% Other - 70%
Lab ID #: 63879 - 03 Cust. #: BA-HM-02A Material: Rolled Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 04 Cust. #: BA-HM-02B Material: Rolled Roofing Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63879 - 05 Cust. #: BA-HM-03A Material: 12x12 White Vinyl Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63879 - 05a Cust. #: BA-HM-03A Material: Mastic Location: Appearance: yellow, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 2816 Baker St.

Report To:

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 06 Cust. #: BA-HM-03B Material: 12x12 White Vinyl Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 63879 - 06a Cust. #: BA-HM-03B Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 07 Cust. #: BA-HM-04A Material: 16x16 White Ceiling Tile Location: Appearance: brown,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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

Robert T. Letarte Jr., Laboratory Director

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Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 08 Cust. #: BA-HM-04B Material: 16x16 White Ceiling Tile Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 63879 - 09 Cust. #: BA-HM-05A Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63879 - 10 Cust. #: BA-HM-05B Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 11 Cust. #: BA-HM-06A Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63879 - 12 Cust. #: BA-HM-06B Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 63879 - 13 Cust. #: BA-HM-07A Material: 9x9 Black Floor Tile Location: Appearance: black,fibrous,homogenous Layer: 1 of 2	Asbestos Present: YES Chrysotile - 10%	Other - 90%

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

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 13a Cust. #: BA-HM-07A Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 14 Cust. #: BA-HM-07B Material: 9x9 Black Floor Tile Location: Appearance: Layer: 1 of 2	Asbestos Present: NOT ANALYZED	
Lab ID #: 63879 - 14a Cust. #: BA-HM-07B Material: Mastic Location: Appearance: black,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 15 Cust. #: BA-HM-08A Material: Floral Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63879 - 16 Cust. #: BA-HM-08B Material: Floral Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63879 - 17 Cust. #: BA-HM-09A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%

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

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 17a Cust. #: BA-HM-09A Material: Joint Compound Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 18 Cust. #: BA-HM-09B Material: Drywall Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 75%
Lab ID #: 63879 - 18a Cust. #: BA-HM-09B Material: Joint Compound Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 19 Cust. #: BA-HS-01A Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 19a Cust. #: BA-HS-01A Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 63879 - 20 Cust. #: BA-HS-01B Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Certificate of Laboratory Analysis

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Mr. Aaron Paquet
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P.O. Box 13216
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ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 20a Cust. #: BA-HS-01B Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 63879 - 21 Cust. #: BA-HS-01C Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 21a Cust. #: BA-HS-01C Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

Report To:

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

ARI Report # 16-63879
 Date Collected: 04/08/16
 Date Received: 04/11/16
 Date Analyzed: 04/18/16
 Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 22 Cust. #: BA-HS-01D Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63879 - 22a Cust. #: BA-HS-01D Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 63879 - 23 Cust. #: BA-HS-01E Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2816 Baker St.

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

ARI Report # 16-63879
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63879 - 23a Cust. #: BA-*HS-01E Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

63879

75 1 of 3

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2816 Baker St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: SDay ITD Except Master

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BIOSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BA-4M-01A	Black Single			
2	BA-4M-01B	Black Single			
3	BA-4M-02A	Redwood Roofing			
4	BA-4M-02B	Redwood Roofing			
5	BA-4M-03A	White 12x12 Vinyl Tile			
6	BA-4M-03B	White 12x12 Vinyl Tile			
7	BA-4M-04A	Wh. 16x16 ceiling tile			
8	BA-4M-04B	Wh. 16x16 ceiling tile			
9	BA-4M-05A	Colored ceiling tile			
10	BA-4M-05B				
11	BA-4M-06A				

Lab Use Only
Log-In _____
Report _____

Relinquished by: [Signature]
Date: 4-8-16

Received by: [Signature]
Date: 4-8-16

Relinquished by: _____
Date: _____

Received by: [Signature]
Date: APR 11 2016

RECEIVED

63879

PJ 2 of 3

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2816 Baker St

Project #: _____

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PJM EPA 600, PC all samples with a detection of <5% ACM.

Rush 24 hour

48 hour 72 hour

Other: 5 Day RTT Excepted

Asbestos: Bulk Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BiOSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	BA-44n-06B	Cladding			
13	BA-44n-07A	Black Gga Vinyltile			
14	BA-44n-07B	Black Gga Vinyltile			
15	BA-44n-08A	Floral Linoleum			
16	BA-44n-08B	Floral Linoleum			
17	BA-44n-09A	Drywall			
18	BA-44n-09B	Drywall			
19	BA-44S-01A	Plaster			
20	BA-44S-01B				
21	BA-44S-01C				
22	BA-44S-01D				

Lab Use Only
Log In _____
Report _____

Relinquished by: Grant Ogust Received by: WJS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____ Received by: RECEIVED

Date: _____ Date: APR 11 2016

Tables

Table 1 - Summary of Hazardous Materials, 2816 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Garage	Television	1
Garage	Automobile Tires	6
Living	Smoke Detector	1
W Bedroom	Smoke Detector	1
E Bedroom	Smoke Detector	1
2 nd Floor W Bedroom	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2816 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
BA-HM-01A	Black Shingle	No	M	Category I	ND	Exterior	NA
BA-HM-01B	Black Shingle	No	M	Category I	ND	Exterior	NA
BA-HM-02A	Rolled Roofing	No	M	Category I	ND	Shed Exterior	NA
BA-HM-02B	Rolled Roofing	No	M	Category I	ND	Shed Exterior	NA
BA-HM-03A	White 12"x12" Vinyl Tile	No	M	Category I	5%CH/ND	W Bedroom	224 sq. ft.
BA-HM-03B	White 12"x12" Vinyl Tile	No	M	Category I	NA/ND	W Bedroom	NA
BA-HM-04A	White 16"x16" Ceiling Tile	Yes	M	Category II	ND	W Bedroom Ceiling	NA
BA-HM-04B	White 16"x16" Vinyl Tile	Yes	M	Category II	ND	W Bedroom Ceiling	NA
BA-HM-05A	Glazing	Yes	M	Category II	ND	Living	NA
BA-HM-05B	Glazing	Yes	M	Category II	ND	Living	NA
BA-HM-06A	Glazing	Yes	M	Category II	ND	Dining	NA
BA-HM-06B	Glazing	Yes	M	Category II	ND	Dining	NA
BA-HM-07A	Black 9"x9" Vinyl Tile	No	M	Category I	10%CH/ND	2 nd Floor Bathroom	90 sq. ft.
BA-HM-07B	Black 9"x9" Vinyl Tile	No	M	Category I	NA/ND	2 nd Floor Bathroom	NA
BA-HM-08A	Floral Linoleum	No	M	Category I	ND	2 nd Floor N Bedroom	NA
BA-HM-08B	Floral Linoleum	No	M	Category I	ND	2 nd Floor N Bedroom	NA
BA-HM-09A	Drywall	No	M	Category II	ND/ND	Kitchen Wall	NA
BA-HM-09B	Drywall	No	M	Category II	ND/ND	Kitchen Wall	NA
BA-HS-01A	Plaster	No	S	Category II	ND/ND	Living Wall	NA
BA-HS-01B	Plaster	No	S	Category II	ND/ND	W Bedroom Wall	NA
BA-HS-01C	Plaster	No	S	Category II	ND/ND	Dining Ceiling	NA
BA-HS-01D	Plaster	No	S	Category II	ND/ND	2 nd Floor W Bedroom Wall	NA
BA-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Floor Landing Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material

Abbreviations

NQ = Not quantified

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2816 Baker St., Muskegon Heights, Michigan

TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2816 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Area above E Bedroom and Kitchen Ceiling	Vermiculite 3" Deep	Yes	Fair	M	260 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2816 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
W Bedroom	White 12"x12" Vinyl Tile	No	224 sq. ft.
2 nd Floor Bathroom	Black 9"x9" Vinyl Tile	No	90 sq. ft.
Total			314 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Area above E Bedroom and Kitchen Ceiling	Vermiculite 3 " Deep	Yes	260 sq. ft.
Total			260 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2820 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-209-0015-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2820 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 1,920 square foot residential building (the Building) constructed in 1915. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap and Transite siding over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and two bedrooms on the first floor while the second floor contains a living room, dining room, kitchen, bathroom and a bedroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 8, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Vapor Barrier
- Linoleum
- Glazing
- Drywall
- Plaster

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

Hazardous Materials Inspection

On April 8, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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 and the Cementitious “Transite” Siding on 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

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 April 8, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Basement (misc. HVAC wrap on Ductwork by chimney, 10 sq. ft.)

Category I ACM

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

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material completed on April 8, 2016 identified 924 sq. ft. of cementitious (Transite) siding on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- Basement (misc. HVAC wrap on Ductwork by chimney, 10 sq. ft.)

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

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

Hazardous Materials

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

- Smoke Detector (1)
- Television (1)

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0015-00

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0015-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2820 Baker St

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

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 01 Cust. #: BK-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63876 - 01a Cust. #: BK-HM-01A Material: Tap Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63876 - 02 Cust. #: BK-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2820 Baker St

Report To:

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

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 02a Cust. #: BK-HM-01B Material: Tap Paper Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63876 - 03 Cust. #: BK-HM-02A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63876 - 03a Cust. #: BK-HM-02A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 04 Cust. #: BK-HM-02B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63876 - 04a Cust. #: BK-HM-02B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 75% Other - 25%
Lab ID #: 63876 - 05 Cust. #: BK-HM-03A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 06 Cust. #: BK-HM-03B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 63876 - 07 Cust. #: BK-HM-04A Material: White Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Fiberglass - 2% Other - 68%
Lab ID #: 63876 - 08 Cust. #: BK-HM-04B Material: White Linoleum Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Fiberglass - 2% Other - 68%

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

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 09 Cust. #: BK-HM-05A Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 10 Cust. #: BK-HM-05B Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 11 Cust. #: BK-HM-06A Material: Drywall Location: Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 12 Cust. #: BK-HM-06B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63876 - 13 Cust. #: BK-HS-01A Material: Plaster Finish Coat Location: Appearance: brown, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 13a Cust. #: BK-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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



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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2820 Baker St

Report To:

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

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 14 Cust. #: BK-HS-01B Material: Plaster Finish Coat Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 14a Cust. #: BK-HS-01B Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 63876 - 15 Cust. #: BK-HS-01C Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Red Cedar Consulting
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Lansing, MI 48901

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 15a Cust. #: BK-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 63876 - 15b Cust. #: BK-HS-01C Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 63876 - 16 Cust. #: BK-HS-01D Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 16a Cust. #: BK-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 2 of 4	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 16b Cust. #: BK-HS-01D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 3 of 4	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 63876 - 16c Cust. #: BK-HS-01D Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 4 of 4	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



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

ARI Report # 16-63876
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/17/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63876 - 17 Cust. #: BK-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63876 - 17a Cust. #: BK-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Hair - 2% Other - 98%
Lab ID #: 63876 - 17b Cust. #: BK-HS-01E Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
 Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2820 Baker St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM.
 apexresearch@redcedarconsulting.net

Rush 24 hour
 48 hour 72 hour
 Other: 5 Day

TTP Except Plaster

Asbestos: Bulk Wipe Point Count PCM
 Lead: Bulk Wipe Air Paint Soil
 Mold: Bulk Tape BioSIS Other Viable
 TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BK-4M-01A	Asphalt Shingle			
2	BK-4M-01B	Asphalt Shingle			
3	BK-4M-02A	Paper Barrier			
4	BK-4M-02B	Vapor Barrier			
5	BK-4M-03A	Asphalt Shingle			
6	BK-4M-03B	Asphalt Shingle			
7	BK-4M-04A	White Linoleum			
8	BK-4M-04B	White Linoleum			
9	BK-4M-05A	Coatings			
10	BK-4M-05B	Coatings			
11	BK-4M-06A	Drywall			

RECEIVED

Relinquished by: *[Signature]* Received by: *[Signature]*

Relinquished by: _____

Received by: *[Signature]*
 APR 11 2016

Date: 4-8-16

Date: 4-8-16

Date: _____

63876

Pg 2 of 2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189
Phone: 734-449-9990
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Date of Survey: 4-8-16

Project: 2820 Baker St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: SD TTP Except Plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____

TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	BK-HR-06B	Drywall			
13	BK-HR-01A	Plaster			
14	BK-HR-01B				
15	BK-HR-01C				
16	BK-HR-01D				
17	BK-HR-01E				

Relinquished by: [Signature] Received by: [Signature]

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____

Date: _____

Received by: [Signature]

Date: APR 11 2016

RECEIVED

Tables

Table 1 - Summary of Hazardous Materials, 2820 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Dining	Smoke Detector	1
2 nd Floor Closet	Television	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2820 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
BK-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
BK-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
BK-HM-02A	Vapor Barrier	Yes	M	Category II	ND/ND	Exterior	NA
BK-HM-02B	Vapor Barrier	Yes	M	Category II	ND/ND	Exterior	NA
BK-HM-03A	Asphalt Shingle	No	M	Category I	ND	Shed Exterior	NA
BK-HM-03B	Asphalt Shingle	No	M	Category I	ND	Shed Exterior	NA
BK-HM-04A	White Linoleum	No	M	Category I	ND	Kitchen	NA
BK-HM-04B	White Linoleum	No	M	Category I	ND	Kitchen	NA
BK-HM-05A	Glazing	Yes	M	Category II	ND	Living	NA
BK-HM-05B	Glazing	Yes	M	Category II	ND	Dining	NA
BK-HM-06A	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
BK-HM-06B	Drywall	No	M	Category II	ND	Living Wall	NA
BK-HS-01A	Plaster	No	S	Category II	ND/ND	Living Wall	NA
BK-HS-01B	Plaster	No	S	Category II	ND/ND	Dining Wall	NA
BK-HS-01C	Plaster	No	S	Category II	ND/ND/ND	Dining Ceiling	NA
BK-HS-01D	Plaster	No	S	Category II	ND/ND/ND/ ND	2 nd Fl. Kitchen Wall	NA
BK-HS-01E	Plaster	No	S	Category II	ND/ND/ND	2 nd Fl. Dining Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2820 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Building Exterior	Transite Siding	No	Fair	M	924 sq. ft.
Basement (misc. HVAC wrap on Ductwork by chimney, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2820 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (misc. HVAC wrap on Ductwork by chimney, 10 sq. ft.)	HVAC Duct Wrap	Yes	10 sq. ft.
Total			10 sq. ft.
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	924 sq. ft.
Total			924 sq. ft.

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2822 Howden St., Muskegon Heights, MI 49444
Parcel ID: 26-635-249-0010-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2822 Howden St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .230 acre residential parcel which contains an approximate 1,260 square foot residential building (the Building) constructed in 1905. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen and bathroom on the first floor while the second floor contains two bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 13, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- 12"x12" Vinyl Tile
- Drywall
- Glazing
- Fiberboard
- Plaster

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

Hazardous Materials Inspection

On April 13, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 13, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- 2nd Floor Bathroom (1 vertical chase to basement, 10 sq. ft.)

Category I ACM

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

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.

- 2nd Floor Bathroom (1 vertical chase to basement, 10 sq. ft.)

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

Hazardous Materials

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

- Automobile Tires (37)

REGULATORY REQUIREMENTS

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

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-249-0010-00

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-249-0010-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2822 Howden St

Report To:

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

ARI Report # 16-64046
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 01 Cust. #: HS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 64046 - 02 Cust. #: HS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64046 - 03 Cust. #: HS-HM-02A Material: Blue 12x12 Vinyl Tile Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

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Project: 2822 Howden St

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

ARI Report # 16-64046
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 03a Cust. #: HS-HM-02A Material: Blue 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 04 Cust. #: HS-HM-02B Material: Blue 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 04a Cust. #: HS-HM-02B Material: Blue 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 16-64046
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 05 Cust. #: HS-HM-03A Material: Beige 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 06 Cust. #: HS-HM-03B Material: Beige 12x12 Vinyl Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 06a Cust. #: HS-HM-03B Material: Beige 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64046
Date Collected: 04/13/16
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Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 07 Cust. #: HS-HM-04A Material: Drywall Location: Appearance: white, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64046 - 08 Cust. #: HS-HM-04B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64046 - 09 Cust. #: HS-HM-05A Material: Glazing Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 10 Cust. #: HS-HM-05B Material: Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 11 Cust. #: HS-HM-06A Material: Fiberboard Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 64046 - 12 Cust. #: HS-HM-06B Material: Fiberboard Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64046
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 13 Cust. #: HS-HS-01A Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64046 - 13a Cust. #: HS-HS-01A Material: Mortar Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64046 - 14 Cust. #: HS-HS-01B Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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ARI Report # 16-64046
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 14a Cust. #: HS-HS-01B Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64046 - 15 Cust. #: HS-HS-01C Material: Plaster Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64046 - 16 Cust. #: HS-HS-01D Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Date Analyzed: 04/20/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64046 - 16a Cust. #: HS-HS-01D Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64046 - 17 Cust. #: HS-HS-01E Material: Plaster Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 2872 Howard St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One)

PJM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day TTP Except Plaster TEM: AHERA 7400 Bulk/NOB EPA Level II

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	MS-KM-01A	Asphalt Shingle			
2	MS-KM-01B	Asphalt Shingle			
3	MS-KM-02A	Blue 12x12 vinyl Tile			
4	MS-KM-02B	Blue 12x12 vinyl Tile			
5	MS-KM-03A	Beige 12x12 vinyl Tile			
6	MS-KM-03B	Beige 12x12 vinyl Tile			
7	MS-KM-04A	Drywall			
8	MS-KM-04B	Drywall			
9	MS-KM-05A	Coloring			
10	MS-KM-05B	Coloring			
11	MS-KM-06A	Fiberboard			

RECEIVED

Relinquished by: [Signature] Received by: [Signature]

Date: 4-13-16

Date: 4-13-16

Relinquished by: [Signature]

Date: _____

Received by: _____

Date: _____

APEX RESEARCH

64046

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 2822 Hardsen St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

P1M EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day

TRP Except plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ Biosis _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	HS-HA-06B	Fiberboard			
13	HS-HS-01A	Plaster			
14	HS-HS-01B				
15	HS-HS-01C				
16	HS-HS-01D				
17	HS-HS-01E				
RECEIVED					

Relinquished by: [Signature]

Received by: [Signature]

Date: 4-13-16

Date: 4-13-16

Relinquished by: [Signature]

Received by: _____

Date: APEX RESEARCH

Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 2822 Howden St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Rear Entry	Automobile Tires	36
2 nd Floor Landing	Automobile Tires	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2822 Howden St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
HS-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
HS-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
HS-HM-02A	Blue 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
HS-HM-02B	Blue 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Bathroom	NA
HS-HM-03A	Beige 12"x12" Vinyl Tile	No	M	Category I	ND	Kitchen	NA
HS-HM-03B	Beige 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
HS-HM-04A	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
HS-HM-04B	Drywall	No	M	Category II	ND	Rear Entry Wall	NA
HS-HM-05A	Glazing	Yes	M	Category II	ND	Dining	NA
HS-HM-05B	Glazing	Yes	M	Category II	ND	Dining	NA
HS-HM-06A	Fiberboard	Yes	M	Category II	ND	2 nd Fl. Bathroom	NA
HS-HM-06B	Fiberboard	Yes	M	Category II	ND	2 nd Fl. Bathroom	NA
HS-HS-01A	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
HS-HS-01B	Plaster	No	S	Category II	ND/ND	Living Wall	NA
HS-HS-01C	Plaster	No	S	Category II	ND	Living Ceiling	NA
HS-HS-01D	Plaster	No	S	Category II	ND/ND	2 nd Fl. Bathroom Wall	NA
HS-HS-01E	Plaster	No	S	Category II	ND	2 nd Fl. W Bedroom Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2822 Howden St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
2 nd Floor Bathroom (1 vertical chase to basement, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2822 Howden St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Floor Bathroom (1 vertical chase to basement, 10 sq. ft.)	HVAC Duct Wrap	Yes	10 sq. ft.
		Total	10 sq. ft.

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2824 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-209-0014-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2824 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 1,385 square foot residential building (the Building) constructed in 1920. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom, two bedrooms and rear entry on the first floor while the second floor contains a living room, kitchen, bathroom and two bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0014-00

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 8, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Linoleum
- 12"x12" Vinyl Tile
- 2'x4' Ceiling Tile
- Glazing
- 9"x9" Vinyl Tile
- Plaster

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

Hazardous Materials Inspection

On April 8, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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.

Air-O-Cell Pipe 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

Air-O-Cell Pipe Wrap identified in the Building in conjunction with the hot water heating system is classified as friable ACM. The visual assessment to quantify the extent of this material identified Friable ACM at the following locations within the basement, first and second floors:

- Basement Boiler Pipe (Air-O-Cell 4") (220 lin. ft.)
- E Bedroom Closet (Air-O-Cell 4") (18 lin. ft.)

Category I ACM

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

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Basement Boiler Pipe (Air-O-Cell 4") (220 lin. ft.)
- E Bedroom Closet (Air-O-Cell 4") (18 lin. ft.)

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

Hazardous Materials

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

- Smoke Detector (1)

REGULATORY REQUIREMENTS

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0014-00

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0014-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2824 Baker St

Report To:

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

ARI Report # 16-63877
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 01 Cust. #: AR-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63877 - 01a Cust. #: AR-HM-01A Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63877 - 02 Cust. #: AR-HM-01B Material: Asphalt Shingle Location: Appearance: green, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 02a Cust. #: AR-HM-01B Material: Grey Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Other - 60%
Lab ID #: 63877 - 03 Cust. #: AR-HM-02A Material: White Linoleum 2 Layer Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 63877 - 03a Cust. #: AR-HM-02A Material: Floor Tile Location: Appearance: brown, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 03b Cust. #: AR-HM-02A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 04 Cust. #: AR-HM-02B Material: White Linoleum 2 Layer Location: Appearance: white,fibrous,nonhomogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 63877 - 04a Cust. #: AR-HM-02B Material: Floor Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Robert T. Letarte Jr., Laboratory Director

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Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 04b Cust. #: AR-HM-02B Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 05 Cust. #: AR-HM-03A Material: Grey 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 05a Cust. #: AR-HM-03A Material: Glue Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 05b Cust. #: AR-HM-03A Material: Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 63877 - 06 Cust. #: AR-HM-03B Material: Grey 12x12 Vinyl Tile Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 06a Cust. #: AR-HM-03B Material: Glue Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 06b Cust. #: AR-HM-03B Material: Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 3 of 3	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 63877 - 07 Cust. #: AR-HM-04A Material: Old Linoleum/Felt Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 63877 - 08 Cust. #: AR-HM-04B Material: Old Linoleum/Felt Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 09 Cust. #: AR-HM-05A Material: White 2x4 Ceiling Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Mineral Wool - 30% Other - 30%
Lab ID #: 63877 - 10 Cust. #: AR-HM-05B Material: White 2x4 Ceiling Tile Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 40% Mineral Wool - 30% Other - 30%
Lab ID #: 63877 - 11 Cust. #: AR-HM-06A Material: Glazing Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 12 Cust. #: AR-HM-06B Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 13 Cust. #: AR-HM-07A Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 14 Cust. #: AR-HM-07B Material: Glazing Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 15 Cust. #: AR-HM-08A Material: Black/White 9x9 Vinyl Tile Location: Appearance: yellow,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 15a Cust. #: AR-HM-08A Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 16 Cust. #: AR-HM-08B Material: Black/White 9x9 Vinyl Tile Location: Appearance: black,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 16a Cust. #: AR-HM-08B Material: Glue Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 17 Cust. #: AR-HM-09A Material: Beige Linoleum Location: Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%
Lab ID #: 63877 - 18 Cust. #: AR-HM-09B Material: Beige Linoleum Location: Appearance: beige,fibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 10% Fiberglass - 10% Other - 80%

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ARI Report # 16-63877
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 19 Cust. #: AR-HM-10A Material: Floral Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63877 - 20 Cust. #: AR-HM-10B Material: Floral Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63877 - 21 Cust. #: AR-HM-11A Material: Green Linoleum Location: Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2824 Baker St

Report To:

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

ARI Report # 16-63877
 Date Collected: 04/08/16
 Date Received: 04/11/16
 Date Analyzed: 04/16/16
 Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 22 Cust. #: AR-HM-11B Material: Green Linoleum Location: Appearance: green, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 50% Other - 50%
Lab ID #: 63877 - 23 Cust. #: AR-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 23a Cust. #: AR-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2824 Baker St

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

ARI Report # 16-63877
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 24 Cust. #: AR-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 24a Cust. #: AR-HS-01B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 63877 - 25 Cust. #: AR-HS-01C Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2824 Baker St

Report To:

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

ARI Report # 16-63877
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 25a Cust. #: AR-HS-01C Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: 63877 - 26 Cust. #: AR-HS-01D Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 26a Cust. #: AR-HS-01D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2824 Baker St

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

ARI Report # 16-63877
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/16/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63877 - 27 Cust. #: AR-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63877 - 27a Cust. #: AR-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 5% Other - 95%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

E-mail: apexresearch@chartermi.net

Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 28224 Baker st.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day ITD Except Roster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	AR-WM-01A	Asphalt Shingle			
2	AR-WM-01B	Asphalt Shingle			
3	AR-WM-02A	white lin 2 layers			
4	AR-WM-02B	white lin 2 layers			
5	AR-WM-03A	Grey 12x12 Vinyl Tile			
6	AR-WM-03B	Grey 12x12 Vinyl Tile			
7	AR-WM-04A	old Linoleum			
8	AR-WM-04B	old Linoleum			
9	AR-WM-05A	white 2x4 Ceiling Tile			
10	AR-WM-05B	white 2x4 Ceiling Tile			
11	AR-WM-06A	Graveling			

Relinquished by: Century Received by: MS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____

Date: _____

Received by: APR 11 2016

Date: _____

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pg 2 of 3

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Phone: (888) 449-4566 Fax: (888) 448-8739

Project #: 2824 Baker St.

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

Rush 24 hour

48 hour 72 hour

Other: 5 bags TTP Except Plaster
Mold: Bulk TEM: AHERA 7400 Bulk/NOB EPA Level II
Asbestos: Bulk x Wipe Point Count PCM
Lead: Bulk Wipe Air Paint Soil
Lead: Bulk Wipe Air Paint Soil

Lab Use Only
Log-In _____
Report _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	AR-HM-0613	Carving			
13	AR-HM-071A	↓			
14	AR-HM-071B				
15	AR-HM-081A	Blackst White GxG vinyl tile			
16	AR-HM-081B	Blackst White GxG vinyl tile			
17	AR-HM-091A	Beige Linoleum			
18	AR-HM-091B	Beige Linoleum			
19	AR-HM-101A	Floral Linoleum			
20	AR-HM-101B	Floral Linoleum			
21	AR-HM-11A	Green Linoleum			
22	AR-HM-11B	Green Linoleum			

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APR 11 2016

Relinquished by: [Signature] Received by: VBS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____

Date: _____

Received by: [Signature]

Date: _____

63877

Pg 3 of 3

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2824 Baker St

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: Exped ITP Except Rust
Mold: Bulk _____ Tape _____ Biosis _____ Other _____ Viable _____
Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
TEM: AHERA 7400 Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
23	AR-MS-01A	Plaster			
24	AR-MS-01B				
25	AR-MS-01C				
26	AR-MS-01D				
27	AR-MS-01E				

Relinquished by: [Signature]
Date: 4-8-16
Received by: URS
Date: 4-8-16

Relinquished by: _____
Date: _____
Received by: [Signature]
Date: _____
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APR 11 2016
APEX RESEARCH

Tables

Table 1 - Summary of Hazardous Materials, 2824 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Basement	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2824 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
AR-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
AR-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
AR-HM-02A	White Linoleum 2 Layer	No	M	Category I	ND/ND/ND	Kitchen	NA
AR-HM-02B	White Linoleum 2 Layer	No	M	Category I	ND/ND/ND	Kitchen	NA
AR-HM-03A	Gray 12"x12" Vinyl Tile	No	M	Category I	ND/ND/ND	Bathroom	NA
AR-HM-03B	Gray 12"x12" Vinyl Tile	No	M	Category I	ND/ND/ND	Bathroom	NA
AR-HM-04A	Old Linoleum	No	M	Category I	ND	Rear Entry	NA
AR-HM-04B	Old Linoleum	No	M	Category I	ND	Rear Entry	NA
AR-HM-05A	White 2'x4' Ceiling Tile	Yes	M	Category II	ND	E Bedroom Ceiling	NA
AR-HM-05B	White 2'x4' Ceiling Tile	Yes	M	Category II	ND	E Bedroom Ceiling	NA
AR-HM-06A	Glazing	Yes	M	Category II	ND	Rear Entry	NA
AR-HM-06B	Glazing	Yes	M	Category II	ND	Rear Entry	NA
AR-HM-07A	Glazing	Yes	M	Category II	ND	Dining	NA
AR-HM-07B	Glazing	Yes	M	Category II	ND	Dining	NA
AR-HM-08A	Black & White 9"x9" Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Living	NA
AR-HM-08B	Black & White 9"x9" Vinyl Tile	No	M	Category I	ND/ND	2 nd Fl. Living	NA
AR-HM-09A	Beige Linoleum	No	M	Category I	ND	2 nd Fl. Kitchen	NA
AR-HM-09B	Beige Linoleum	No	M	Category I	ND	2 nd Fl. Kitchen	NA
AR-HM-10A	Floral Linoleum	No	M	Category I	ND	2 nd Fl. W Bedroom	NA
AR-HM-10B	Floral Linoleum	No	M	Category I	ND	2 nd Fl. W Bedroom	NA
AR-HM-11A	Green Linoleum	No	M	Category I	ND	2 nd Fl. Attic Area by Kitchen	NA
AR-HM-11B	Green Linoleum	No	M	Category I	ND	2 nd Fl. Attic Area by Kitchen	NA
AR-HS-01A	Plaster	No	S	Category II	ND/ND	Living Wall	NA
AR-HS-01B	Plaster	No	S	Category II	ND/ND	W Bedroom Wall	NA
AR-HS-01C	Plaster	No	S	Category II	ND/ND	Kitchen Wall	NA
AR-HS-01D	Plaster	No	S	Category II	ND/ND	W Bedroom Ceiling	NA
AR-HS-01E	Plaster	No	S	Category II	ND/ND	Dining Ceiling	NA

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2824 Baker St., Muskegon Heights, Michigan

Notes:

Material Types

M = Miscellaneous building material
TSI = Thermal System Insulation
S = Surfacing Material
PC = Point Count Analysis
CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
NA = Not applicable
ND = Not detected. Laboratory result is less than 1 % asbestos
lin. ft. = linear feet
sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2824 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Basement Boiler Pipe	Air-O-Cell 4"	Yes	Fair	TSI	220 lin. ft.
E Bedroom Closet	Air-O-Cell 4"	Yes	Fair	TSI	18 lin. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2824 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement Boiler Pipe	Air-O-Cell 4"	Yes	220 lin. ft.
E Bedroom Closet	Air-O-Cell 4"	Yes	18 lin. ft.
		Total	238 lin. ft.

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
2828 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-209-0013-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2828 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 1,098 square foot residential building (the Building) constructed in 1920. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with Transite over a vapor barrier which was over Stucco while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen and a bedroom on the first floor while the second floor contains two bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 13, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Vapor Barrier
- Drywall
- Glazing
- 9"x9" Vinyl Tile
- Plaster
- Stucco

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

Hazardous Materials Inspection

On April 13, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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 and the Cementitious “Transite” Siding on the Building was classified as PACM due to the age of the structure and samples were not collected.

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

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

Friable ACM's

A window glazing sample collected from a window in the living room was found to contain up to 2.5% asbestos following analysis. The assessment to quantify the extent of this material on April 13, 2016 identified sixteen windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Rear Entry (1 window 45" wide x 24" tall)
- Kitchen (2 windows 26" wide x 46" tall)
- Dining (3 windows 26" wide x 58" tall)
- Dining (1 window 40" wide x 58" tall)
- Living (1 window 26" wide x 58" tall)
- Living (1 window 44" wide x 58" tall)
- Bedroom (2 windows 26" wide x 58" tall)
- 2nd Fl. Bathroom (1 window 26" wide x 46" tall)
- 2nd Fl. Hallway (1 window 26" wide x 46" tall)
- 2nd Fl. E Bedroom (1 window 26" wide x 46" tall)
- 2nd Fl. W Bedroom (2 windows 26" wide x 46" tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material completed on April 13, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- 2nd Floor Hallway (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (6 in. dia. HVAC Wrapped Ductwork, 6 lin. ft.)

Category I ACM

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

Category II ACM

The cementitious "Transite" siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material completed on April 13, 2016 identified 1,892 sq. ft. of cementitious (Transite) siding on the Building.

Stucco samples, collected from the Building exterior were each found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material completed on April 13, 2016 identified approximately 1,892 sq. ft. of stucco on the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- 2nd Floor Hallway (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- Basement (6 in. dia. HVAC Wrapped Ductwork, 6 lin. ft.)

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

- Rear Entry (1 window 45" wide x 24" tall)
- Kitchen (2 windows 26" wide x 46" tall)
- Dining (3 windows 26" wide x 58" tall)
- Dining (1 window 40" wide x 58" tall)
- Living (1 window 26" wide x 58" tall)
- Living (1 window 44" wide x 58" tall)
- Bedroom (2 windows 26" wide x 58" tall)
- 2nd Fl. Bathroom (1 window 26" wide x 46" tall)
- 2nd Fl. Hallway (1 window 26" wide x 46" tall)
- 2nd Fl. E Bedroom (1 window 26" wide x 46" tall)
- 2nd Fl. W Bedroom (2 windows 26" wide x 46" tall)

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

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

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

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

Hazardous Materials

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

- No Hazardous Materials Identified

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-209-0013-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 2828 Baker St.

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

ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 01 Cust. #: BS-HM--01A Material: Asphalt Shingles Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 64044 - 01a Cust. #: BS-HM--01A Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 64044 - 02 Cust. #: BS-HM-01B Material: Asphalt Shingles Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)



Project: 2828 Baker St.

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 Red Cedar Consulting
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 Lansing, MI 48901

ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 02a Cust. #: BS-HM-01B Material: Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 64044 - 03 Cust. #: BS-HM-02A Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 64044 - 04 Cust. #: BS-HM-02B Material: Vapor Barrier Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 05 Cust. #: BS-HM-03A Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64044 - 06 Cust. #: BS-HM-03B Material: Drywall Location: Appearance: white, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64044 - 07 Cust. #: BS-HM-04A Material: Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 2.5% POINT COUNT RESULT	Other - 97.5%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 08 Cust. #: BS-HM-04B Material: Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 64044 - 09 Cust. #: BS-HM-05A Material: 9x9 Brown Vinyl Tile Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%
Lab ID #: 64044 - 10 Cust. #: BS-HM-05B Material: 9x9 Brown Vinyl Tile Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 35% Other - 65%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 11 Cust. #: BS-HS-01A Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64044 - 11a Cust. #: BS-HS-01A Material: Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64044 - 12 Cust. #: BS-HS-01B Material: Plaster - Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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 Lansing, MI 48901

ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 12a Cust. #: BS-HS-01B Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64044 - 13 Cust. #: BS-HS-01C Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64044 - 13a Cust. #: BS-HS-01C Material: Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 14 Cust. #: BS-HS-01D Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64044 - 14a Cust. #: BS-HS-01D Material: Base Coat Location: Appearance: grey, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64044 - 15 Cust. #: BS-HS-01E Material: Plaster - Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 15a Cust. #: BS-HS-01E Material: Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64044 - 16 Cust. #: BS-HS-02A Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 64044 - 17 Cust. #: BS-HS-02B Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64044
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64044 - 18 Cust. #: BS-HS-02C Material: Stucco Location: Appearance: Layer: of	Asbestos Present: NO SAMPLE RECEIVED	
Lab ID #: 64044 - 19 Cust. #: BS-HS-02D Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 64044 - 20 Cust. #: BS-HS-02E Material: Stucco Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St, Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project #: 2828 Baker St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
 48 hour 72 hour

Other: 4-13-16 TRP Except Plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BIOSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	BS-KM-01A	Asphalt Shingles			
2	BS-KM-01B	Asphalt Shingles			
3	BS-KM-02A	Vapor Barrier			
4	BS-KM-02B	Vapor Barrier			
5	BS-KM-03A	Drywall			
6	BS-KM-03B	Drywall			
7	BS-KM-04A	Ceiling			
8	BS-KM-04B	Ceiling			
9	BS-KM-05A	Brown area Vinyl Tile			
10	BS-KM-05B	Brown area Vinyl Tile			
11	BS-KM-01A	Plaster			

RECEIVED

Relinquished by: [Signature] Received by: UPS

Date: 4-13-16 Date: 4-13-16

Relinquished by: [Signature] Received by: [Signature]

Date: APR 14 2016 Date: _____

64044

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189 Phone: 734-449-9990

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 1828 Baker St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-in _____
Report _____

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

Rush 24 hour

48 hour 72 hour

Other: Handy RTB Except Plaster TEM: AHERA 7400 Bulk/NOB EPA Level II

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____

Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____

Mold: Bulk _____ Tape _____ Biosis _____ Other _____ Viable _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	BS-118-01B	Plaster			
13	BS-118-01C				
14	BS-118-01D				
15	BS-118-01E	↓			
16	BS-118-02A	stucco			
17	BS-118-02B				
18	BS-118-02C				
19	BS-118-02D				
20	BS-118-02E	↓			

Relinquished by: Paul Cuyet

Received by: UPS

Date: 4-13-16

Date: 4-13-16

Relinquished by: RECEIVED

Received by: _____

Date: APR 14 2016

Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 2828 Baker St., Muskegon Heights, Michigan

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

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2828 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
BS-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
BS-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
BS-HM-02A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
BS-HM-02B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
BS-HM-03A	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
BS-HM-03B	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
BS-HM-04A	Glazing	Yes	M	Category II	2.5%CH	Living	16 Windows
BS-HM-04B	Glazing	Yes	M	Category II	NA	Dining	NA
BS-HM-05A	Brown 9"x9" Vinyl Tile	No	M	Category I	ND	2 nd Fl. Hallway	NA
BS-HM-05B	Brown 9"x9" Vinyl Tile	No	M	Category I	ND	2 nd Fl. Bathroom	NA
BS-HS-01A	Plaster	No	S	Category II	ND/ND	Living Wall	NA
BS-HS-01B	Plaster	No	S	Category II	ND/ND	Bedroom Wall	NA
BS-HS-01C	Plaster	No	S	Category II	ND/ND	Kitchen Ceiling	NA
BS-HS-01D	Plaster	No	S	Category II	ND/ND	2 nd Fl. Bathroom Wall	NA
BS-HS-01E	Plaster	No	S	Category II	ND/ND	2 nd Fl. E Bedroom Ceiling	NA
BS-HS-02A	Stucco	No	S	Category II	5%CH	Exterior W Wall	1,892 sq. ft.
BS-HS-02B	Stucco	No	S	Category II	5%CH	Exterior S Wall	See Sample BS-HS-02A
BS-HS-02C	Stucco	No	S	Category II	No Sample received.	Exterior E Wall	See Sample BS-HS-02A
BS-HS-02D	Stucco	No	S	Category II	5%CH	Exterior NE Wall	See Sample BS-HS-02A
BS-HS-02E	Stucco	No	S	Category II	5%CH	Exterior NW Wall	See Sample BS-HS-02A

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2828 Baker St., Muskegon Heights, Michigan

PC = Point Count Analysis
CH = Chrysotile Asbestos

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

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2828 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Building Exterior	Transite Siding	No	Fair	M	1,892 sq. ft.
2 nd Floor Hallway (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	35 sq. ft.
Basement (6 in. dia. HVAC Wrapped Ductwork, 6 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	6 lin. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2828 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
2 nd Floor Hallway (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	35 sq. ft.
	Total		35 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (6 in. dia. HVAC Wrapped Ductwork, 6 lin. ft.)	HVAC Duct Wrap	Yes	6 lin. ft.
	Total		6 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Rear Entry (1 window 45" wide x 24" tall)	Glazing	Yes	1 Window
Kitchen (2 windows 26" wide x 46" tall)			2 Windows
Dining (3 windows 26" wide x 58" tall)			3 Windows
Dining (1 window 40" wide x 58" tall)			1 Window
Living (1 window 26" wide x 58" tall)			1 Window
Living (1 window 44" wide x 58" tall)			1 Window
Bedroom (2 windows 26" wide x 58" tall)			2 Windows
2 nd Fl. Bathroom (1 window 26" wide x 46" tall)			1 Window
2 nd Fl. Hallway (1 window 26" wide x 46" tall)			1 Window
2 nd Fl. E Bedroom (1 window 26" wide x 46" tall)			1 Window
2 nd Fl. W Bedroom (2 windows 26" wide x 46" tall)			2 Windows
	Total		16 Windows
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Stucco	No	1,892 sq. ft.
	Total		1,892 sq. ft.

Table 4 - Summary of All Asbestos Containing Materials, 2828 Baker St., Muskegon Heights, Michigan

Exterior - Asbestos Containing Materials				
Location	Material Description	Friable	Approx. Quantity	
Building Exterior	Transite Siding	No	1,892 sq. ft.	
Total			1,892 sq. ft.	

Notes:

Abbreviations

lin. ft. = linear feet

sq. ft. = square feet

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2916 Baker St., Muskegon Heights, MI 49444
Parcel ID: 26-185-230-0016-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2916 Baker St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 1,056 square foot residential building (the Building) constructed in 1910. 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 asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on April 8, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- 12"x12" Vinyl Tile
- 12"x12" Ceiling Tile
- Drywall
- Glazing
- Plaster

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

Hazardous Materials Inspection

On April 8, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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

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

Presumed Asbestos Containing Material

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

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

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

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

Friable ACM’s

A window glazing sample collected from a window in the front porch was found to contain up to 5% asbestos following analysis. The assessment to quantify the extent of this material on April 8, 2016 identified twelve windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Front Porch (12 windows 24” wide x 54” tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material completed on April 8, 2016 identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Basement W Room (misc. HVAC wrap on Framing, 10 sq. ft.)

Category I ACM

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

Category II ACM

Plaster samples, collected from the walls and ceilings within the Building, were each found to contain up to 2% asbestos following analysis. The assessment to quantify the extent of this material completed on April 8, 2016 identified approximately 3,847 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- Basement W Room (misc. HVAC wrap on Framing, 10 sq. ft.)

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

- Front Porch (12 windows 24" wide x 54" tall)

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

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

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

Hazardous Materials

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

- Television (2)

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-230-0016-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2916 Baker St

Report To:

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

ARI Report # 16-63875
Date Collected: 04/08/16
Date Received: 04/11/16
Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 01 Cust. #: ST-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63875 - 02 Cust. #: ST-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 63875 - 03 Cust. #: ST-HM-02A Material: White 12x12 Vinyl Tile Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



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Date Collected: 04/08/16
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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 03a Cust. #: ST-HM-02A Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 04 Cust. #: ST-HM-02B Material: White 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 04a Cust. #: ST-HM-02B Material: Mastic Location: Appearance: yellow,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 05 Cust. #: ST-HM-03A Material: Brown 12x12 Vinyl Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 05a Cust. #: ST-HM-03A Material: Mastic Location: Appearance: clear,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 06 Cust. #: ST-HM-03B Material: Brown 12x12 Vinyl Tile Location: Appearance: brown,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 06a Cust. #: ST-HM-03B Material: Mastic Location: Appearance: clear, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 07 Cust. #: ST-HM-04A Material: White 12x12 Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%
Lab ID #: 63875 - 08 Cust. #: ST-HM-04B Material: White 12x12 Ceiling Tile Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 95% Other - 5%

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

Robert T. Letarte Jr., Laboratory Director

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Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 09 Cust. #: ST-HM-05A Material: Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 09a Cust. #: ST-HM-05A Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%
Lab ID #: 63875 - 10 Cust. #: ST-HM-05B Material: Drywall Location: Appearance: beige, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 2% Other - 78%

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

Robert T. Letarte Jr., Laboratory Director

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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 11 Cust. #: ST-HM-06A Material: Glazing Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 5%	Other - 95%
Lab ID #: 63875 - 12 Cust. #: ST-HM-06B Material: Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 63875 - 13 Cust. #: ST-HS-01A Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 13a Cust. #: ST-HS-01A Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Hair - 2% Other - 96.75%
Lab ID #: 63875 - 14 Cust. #: ST-HS-01B Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 14a Cust. #: ST-HS-01B Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.75% POINT COUNT RESULT	Hair - 2% Other - 96.25%

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

Robert T. Letarte Jr., Laboratory Director

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



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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 15 Cust. #: ST-HS-01C Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 15a Cust. #: ST-HS-01C Material: Plaster Base Coat Location: Appearance: grey,fibrous,homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Hair - 2% Other - 96.50%
Lab ID #: 63875 - 16 Cust. #: ST-HS-01D Material: Plaster Finish Coat Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Date Analyzed: 04/18/16
Date Reported: 04/18/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 63875 - 16a Cust. #: ST-HS-01D Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 1.25% POINT COUNT RESULT	Hair - 2% Other - 96.75%
Lab ID #: 63875 - 17 Cust. #: ST-HS-01E Material: Plaster Finish Coat Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 63875 - 17a Cust. #: ST-HS-01E Material: Plaster Base Coat Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: YES Chrysotile - 2.0% POINT COUNT RESULT	Hair - 2% Other - 96%

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

63875

ARFLA research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189

Phone: 734-449-9990
E-mail: apexresearch@charterni.net
Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St, Zip: Phone: (888) 449-4566 Fax: (888) 448-8739

Project #: 2916 Baker St

Date of Survey: 4-8-16
Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

Rush 24 hour
48 hour 72 hour
Other: 5 Day

Asbestos: Bulk Wipe PCM

Lead: Bulk Wipe Air Paint Soil
Mold: Bulk Tape BioSIS Other Viable
TEM: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/L. location	Volume	Area	Results
1	ST-4M-01A	Asphalt Shingle			
2	ST-4M-01B	Asphalt Shingle			
3	ST-4M-02A	White brick vinyl tile			
4	ST-4M-02B	White brick vinyl tile			
5	ST-4M-03A	Brown brick vinyl tile			
6	ST-4M-03B	Brown brick vinyl tile			
7	ST-4M-04A	White brick ceiling tile			
8	ST-4M-04B	White brick ceiling tile			
9	ST-4M-05A	Drywall			
10	ST-4M-05B	Drywall			
11	ST-4M-06A	Garaging			

Lab Use Only
Log-In _____
Report _____

Relinquished by: Campoyt Received by: UBS

Date: 4-8-16 Date: 4-8-16

Relinquished by: _____ Received by: RESEARCH

Date: _____ Date: APR 11 2016

63875

PS 2 of 2

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-8-16

Project: 2916 Baker St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PJM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day ETP Except Plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	ST-16m-06B	Cleaning			
13	ST-16B-01A	Plaster			
14	ST-16B-01B				
15	ST-16B-01C				
16	ST-16B-01D				
17	ST-16B-01E				

RECEIVED

Relinquished by: Emily Paquet Received by: UTS

Date: 4-8-16

Date: 4-8-16

Relinquished by: _____

Date: _____

Received by: Frank
APR 11 2016

Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 2916 Baker St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Television	1
Living	Television	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2916 Baker St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
ST-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-02A	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
ST-HM-02B	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
ST-HM-03A	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Hallway	NA
ST-HM-03B	Brown 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Hallway	NA
ST-HM-04A	White 12"x12" Ceiling Tile	Yes	M	Category II	ND	Living Ceiling	NA
ST-HM-04B	White 12"x12" Ceiling Tile	Yes	M	Category II	ND	Dining Ceiling	NA
ST-HM-05A	Drywall	No	M	Category II	ND/ND	Kitchen Ceiling	NA
ST-HM-05B	Drywall	No	M	Category II	ND	Kitchen Ceiling	NA
ST-HM-06A	Glazing	Yes	M	Category II	5%CH	Front Porch	12 Windows
ST-HM-06B	Glazing	Yes	M	Category II	NA	Front Porch	NA
ST-HS-01A	Plaster	No	S	Category II	ND/1.25%CH	W Bedroom Wall	3,847 sq. ft.
ST-HS-01B	Plaster	No	S	Category II	ND/1.75%CH	Basement Stairwell Wall	See Sample ST-HS-01A
ST-HS-01C	Plaster	No	S	Category II	ND/1.5%CH	Center Bedroom Wall	See Sample ST-HS-01A
ST-HS-01D	Plaster	No	S	Category II	ND/1.25%CH	W Bedroom Ceiling	See Sample ST-HS-01A
ST-HS-01E	Plaster	No	S	Category II	ND/2.0%CH	Center Bedroom Ceiling	See Sample ST-HS-01A

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2916 Baker St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Basement W Room (misc. HVAC wrap on Framing, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 sq. ft.

Notes:

Material Types

- M = Miscellaneous building material
- TSI = Thermal System Insulation
- S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2916 Baker St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement W Room (misc. HVAC wrap on Framing, 10 sq. ft.)	HVAC Duct Wrap	Yes	10 sq. ft.
	Total		10 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Porch (12 windows 24" wide x 54" tall)	Glazing	Yes	12 windows
	Total		12 Windows
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Interior	Wall Plaster (1rst Fl. and Basement wall (14'x3')	No	2,922 sq. ft.
Interior	Ceiling Plaster (1rst Fl. Only	No	925 sq. ft.
	Total		3,847 sq. ft.

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
2921 Jefferson St., Muskegon Heights, MI 49444
Parcel ID: 26-185-225-0006-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 2921 Jefferson St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .143 acre residential parcel which contains an approximate 800 square foot residential building (the Building) constructed in 1925. The Building was constructed on a concrete block basement with one aboveground floor. The exterior walls of the Building were finished with Transite over felt paper while the roof was sealed with asphalt shingles. The Building can be further divided into a front porch, living room, dining room, kitchen, bathroom and three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos Workers Accreditation Act 440 completed an inspection of the Subject Property on April 13, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Felt Paper
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Glazing
- Plaster

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

Hazardous Materials Inspection

On April 13, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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 and the Cementitious “Transite” Siding on the Building was classified as PACM due to the age of the structure and samples were not collected.

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

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

Friable ACM’s

A window glazing sample collected from a window in the front porch was found to contain up to 1.5% asbestos following analysis. The assessment to quantify the extent of this material on April 13, 2016 identified thirteen windows at the following locations that would fall into the same homogenous group. The locations of the windows are listed below:

- Front Porch (13 windows 20” wide x 60” tall)

Duct Wrap identified in the building in conjunction with the forced air heating system is classified as friable ACM. The visual assessment to quantify the extent of this material completed on April 13, 2016 identified HVAC Duct Wrap at the following locations within the basement and first floor:

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- N Bedroom (1 register, 15 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)

Category I ACM

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

Category II ACM

The cementitious “Transite” siding located on the exterior of the Building was classified as PACM and no samples were collected. The visual assessment to quantify the extent of this material completed on April 13, 2016 identified 1,670 sq. ft. of cementitious (Transite) siding on the Building.

Plaster samples, collected from the N Bedroom were each found to contain up to 3.5% asbestos following analysis. The assessment to quantify the extent of this material completed on April 13, 2016 identified approximately 4,043 sq. ft. of plaster within the Building.

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 register, 15 sq. ft.)
- Dining (1 register, 15 sq. ft.)
- Kitchen (1 register, 15 sq. ft.)
- N Bedroom (1 register, 15 sq. ft.)
- Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)

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

- Front Porch (13 windows 20” wide x 60” tall)

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

Transite siding was identified on the exterior of the Building and must be abated prior to completion of any demolition activities at the Subject Property. In demolition, all cementitious ACM must be removed prior to demolition due to the likelihood of becoming regulated due to the demolition process.

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

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

Hazardous Materials

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

- Smoke Detector (4)

REGULATORY REQUIREMENTS

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

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

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

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

Asbestos abatement should only be performed by a certified asbestos abatement contractor licensed to complete abatement work. The contractor must also follow the standards and requirements set forth per

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-185-225-0006-00

the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) and the USEPA NESHAP (40 CFR Part 61).

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 01 Cust. #: JS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 64045 - 01a Cust. #: JS-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 64045 - 02 Cust. #: JS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 02a Cust. #: JS-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Fiberglass - 15% Other - 85%
Lab ID #: 64045 - 03 Cust. #: JS-HM-02A Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%
Lab ID #: 64045 - 04 Cust. #: JS-HM-02B Material: Felt Paper Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 60% Other - 40%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 05 Cust. #: JS-HM-03A Material: Burgandy 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%
Lab ID #: 64045 - 05a Cust. #: JS-HM-03A Material: Glue Location: Appearance: yellow,fibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 64045 - 06 Cust. #: JS-HM-03B Material: Burgandy 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 06a Cust. #: JS-HM-03B Material: Glue Location: Appearance: yellow,nonfibrous,nonhomogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 1% Other - 99%
Lab ID #: 64045 - 07 Cust. #: JS-HM-04A Material: White 1x1 Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 64045 - 08 Cust. #: JS-HM-04B Material: White 1x1 Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 09 Cust. #: JS-HM-05A Material: Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 2% Other - 98%
Lab ID #: 64045 - 10 Cust. #: JS-HM-05B Material: Glazing Location: Appearance: grey,nonfibrous,nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Wollastonite - 1% Other - 99%
Lab ID #: 64045 - 11 Cust. #: JS-HM-06A Material: Glazing Location: Appearance: beige,fibrous,homogenous Layer: 1 of 1	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 12 Cust. #: JS-HM-06B Material: Glazing Location: Appearance: Layer: of	Asbestos Present: NOT ANALYZED	
Lab ID #: 64045 - 13 Cust. #: JS-HS-01A Material: Plaster Texture Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64045 - 13a Cust. #: JS-HS-01A Material: Plaster Base Coat Location: Appearance: beige,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



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Certificate of Laboratory Analysis

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Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
 Date Collected: 04/13/16
 Date Received: 04/14/16
 Date Analyzed: 04/20/16
 Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 14 Cust. #: JS-HS-01B Material: Plaster Base Coat Location: Appearance: beige, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64045 - 15 Cust. #: JS-HS-01C Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64045 - 15a Cust. #: JS-HS-01C Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 2 of 3	Asbestos Present: YES Chrysotile - 1.50% POINT COUNT RESULT	Other - 98.50%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 15b Cust. #: JS-HS-01C Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: YES Chrysotile - 3.50% POINT COUNT RESULT	Cellulose - 1% Hair - 1% Other - 94.50%
Lab ID #: 64045 - 16 Cust. #: JS-HS-01D Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 3	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64045 - 16a Cust. #: JS-HS-01D Material: Plaster Finish Coat Location: Appearance: white, fibrous, homogenous Layer: 2 of 3	Asbestos Present: NO Chrysotile - 1.00% POINT COUNT RESULT	Other - 99.00%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 2921 Jefferson St

Report To:

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

ARI Report # 16-64045
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/20/16
Date Reported: 04/20/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64045 - 16b Cust. #: JS-HS-01D Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 3 of 3	Asbestos Present: YES Chrysotile - 2.75% POINT COUNT RESULT	Cellulose - 1% Hair - 2% Other - 94.25%
Lab ID #: 64045 - 17 Cust. #: JS-HS-01E Material: Plaster Texture Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64045 - 17a Cust. #: JS-HS-01E Material: Plaster Base Coat Location: Appearance: beige, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Hair - 1% Other - 99%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

64045

pg

10F2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189

E-mail: apexresearch@chartermi.net



Client Name: Red Cedar Consulting

Address: PO Box 13216 Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

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

Asbestos: Bulk x Wipe

Point Count PCM

Contact Person: Aaron Paquet

apaquet@redcedarconsulting.net

Date of Survey: 4-13-16

Project: 2921 Jefferson St.

Project #:

Lab Use Only
Log-In _____
Report _____

Rush 24 hour
48 hour 72 hour

Lead: Bulk

Wipe

Air

Paint

Soil

Mold: Bulk

Tape

Biosis

Other

Viable

Other: 4 Day Except Faster

TEM: AHERA 7400

Bulk/NOB

EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	JS-HM-014	Asphalt Shingle			
2	JS-HM-013	Asphalt Shingle			
3	JS-HM-02A	Felt Paper			
4	JS-HM-02B	Felt Paper			
5	JS-HM-03A	Burgandy 12x12 Vinyl Tile			
6	JS-HM-03B	Burgandy 12x12 Vinyl Tile			
7	JS-HM-04A	White 1x1 Ceiling Tile			
8	JS-HM-04B	White 1x1 Ceiling Tile			
9	JS-HM-05A	Clearing			
10	JS-HM-05B				
11	JS-HM-06A				

RECEIVED

Relinquished by: [Signature]

Received by: [Signature]

Date: 4-13-16

Date: 4-13-16

Relinquished by: [Signature]

Received by: [Signature]

Date: _____

Date: _____

64015

pg 2 of 2

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 2921 Jefferson St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM.
apaguet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 1 Day Except Roster

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BioSIS Other Viable

TEMI: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	JS-HM-06IS	Colours			
13	JS-148-01A	Plaster			
14	JS-148-01B				
15	JS-148-01C				
16	JS-148-01D				
17	JS-148-01E				

Relinquished by: [Signature] Received by: [Signature]
Date: 4-13-16 Date: 4-13-16

Relinquished by: [Signature] Received by: [Signature]
Date: APR 14 2016

Lab Use Only
Log-In _____
Report _____

Tables

Table 1 - Summary of Hazardous Materials, 2921 Jefferson St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
E Bedroom	Smoke Detector	1
W Bedroom	Smoke Detector	1
N Bedroom	Smoke Detector	1
Basement	Smoke Detector	1

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 2921 Jefferson St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
JS-HM-01A	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
JS-HM-01B	Asphalt Shingle	No	M	Category I	ND/ND	Exterior	NA
JS-HM-02A	Felt Paper	Yes	M	Category II	ND	Exterior	NA
JS-HM-02B	Felt Paper	Yes	M	Category II	ND	Exterior	NA
JS-HM-03A	Burgundy 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
JS-HM-03B	Burgundy 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Kitchen	NA
JS-HM-04A	White 1'x1' Ceiling Tile	Yes	M	Category II	ND	Living	NA
JS-HM-04B	White 1'x1' Ceiling Tile	Yes	M	Category II	ND	Living	NA
JS-HM-05A	Glazing	Yes	M	Category II	ND	W Bedroom	NA
JS-HM-05B	Glazing	Yes	M	Category II	ND	W Bedroom	NA
JS-HM-06A	Glazing	Yes	M	Category II	1.5%CH	Front Porch	13 Windows
JS-HM-06B	Glazing	Yes	M	Category II	NA	Front Porch	NA
JS-HS-01A	Plaster	No	S	Category II	ND/ND	E Bedroom Wall	See Sample JS-HS-01C
JS-HS-01B	Plaster	No	S	Category II	ND	Living Wall	See Sample JS-HS-01C
JS-HS-01C	Plaster	No	S	Category II	ND/1.5%CH/ 3.5%CH	N Bedroom Wall	4,043 sq. ft.
JS-HS-01D	Plaster	No	S	Category II	ND/1.0%CH/ 2.75%CH	N Bedroom Ceiling	See Sample JS-HS-01C
JS-HS-01E	Plaster	No	S	Category II	ND/ND	W Bedroom Ceiling	See Sample JS-HS-01C

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 2921 Jefferson St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Building Exterior	Transite Siding	No	Fair	M	1,670 sq. ft.
Living (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) N Bedroom (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	60 sq. ft.
Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 lin. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2921 Jefferson St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 15 sq. ft.) Dining (1 register, 15 sq. ft.) Kitchen (1 register, 15 sq. ft.) N Bedroom (1 register, 15 sq. ft.)	HVAC Duct Wrap	Yes	60 sq. ft.
	Total		60 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Basement (12 in. dia. HVAC Wrapped Ductwork, 10 lin. ft.)	HVAC Duct Wrap	Yes	10 lin. ft.
	Total		10 lin. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Front Porch (13 windows 20" wide x 60" tall)	Glazing	Yes	13 Windows
	Total		13 Windows
Exterior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Building Exterior	Transite Siding	No	1,670 sq. ft.
	Total		1,670 sq. ft.
Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
1 st Floor	Wall Plaster	No	3,168 sq. ft.
1 st Floor	Ceiling Plaster	No	875 sq. ft.
	Total		4,043 sq. ft.

Notes:

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 2921 Jefferson St., Muskegon Heights, Michigan

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

RE: *Asbestos Containing Material and Hazardous Materials Inspection*
3133 Jefferson St., Muskegon Heights, MI 49444
Parcel ID: 26-770-012-0017-00

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3133 Jefferson St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .239 acre residential parcel which contains an approximate 1,176 square foot residential building (the Building) constructed in 1930. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap over a vapor barrier while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and a bedroom on the first floor while the second floor contains three bedrooms.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 13, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Vapor Barrier
- 12"x12" Vinyl Tile
- Drywall
- Glazing
- Plaster

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

Hazardous Materials Inspection

On April 13, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 13, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Living (1 register, 10 sq. ft.)
- Dining (1 register, 10 sq. ft.)
- Bedroom (1 register, 10 sq. ft.)
- 2nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

Category I ACM

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

Category II ACM

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

RECOMMENDATIONS

Asbestos Containing Materials

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

- Living (1 register, 10 sq. ft.)
- Dining (1 register, 10 sq. ft.)
- Bedroom (1 register, 10 sq. ft.)
- 2nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)
- 2nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)

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

Hazardous Materials

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

- No Hazardous Materials Identified

REGULATORY REQUIREMENTS

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

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-770-012-0017-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

Report To:

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 01 Cust. #: JN-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64047 - 02 Cust. #: JN-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64047 - 03 Cust. #: JN-HM-02A Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

Report To:

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 04 Cust. #: JN-HM-02B Material: Vapor Barrier Location: Appearance: brown, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 80% Other - 20%
Lab ID #: 64047 - 05 Cust. #: JN-HM-03A Material: White 12x12 Vinyl Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 64047 - 05a Cust. #: JN-HM-03A Material: White 12x12 Vinyl Tile Location: Appearance: black, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 06 Cust. #: JN-HM-03B Material: White 12x12 Vinyl Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 64047 - 06a Cust. #: JN-HM-03B Material: White 12x12 Vinyl Tile Location: Appearance: black, nonfibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 07 Cust. #: JN-HM-04A Material: Rose 12x12 Vinyl Tile Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 08 Cust. #: JN-HM-04B Material: Rose 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 09 Cust. #: JN-HM-05A Material: Blue 12x12 Vinyl Tile Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 10 Cust. #: JN-HM-05B Material: Blue 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

Report To:

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 11 Cust. #: JN-HM-06A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64047 - 12 Cust. #: JN-HM-06B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Other - 80%
Lab ID #: 64047 - 13 Cust. #: JN-HM-07A Material: Glazing Location: Appearance: grey, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 14 Cust. #: JN-HM-07B Material: Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 15 Cust. #: JN-HS-01A Material: Plaster Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64047 - 16 Cust. #: JN-HS-01B Material: Plaster Location: Appearance: white,nonfibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 16a Cust. #: JN-HS-01B Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64047 - 17 Cust. #: JN-HS-01C Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 17a Cust. #: JN-HS-01C Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3133 Jefferson St

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

ARI Report # 16-64047
Date Collected: 04/13/16
Date Received: 04/14/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64047 - 18 Cust. #: JN-HS-01D Material: Plaster Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64047 - 18a Cust. #: JN-HS-01D Material: Mortar Location: Appearance: grey, fibrous, homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64047 - 19 Cust. #: JN-HS-01E Material: Plaster Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0

64047

pg 1 of 2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189

E-mail: apexresearch@chartermi.net



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 3133 Jefferson St.

Project #:

Contact Person: Aaron Paquet

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day

TRP Except Plaster

Asbestos: Bulk Wipe Point Count PCM

Lead: Bulk Wipe Air Paint Soil

Mold: Bulk Tape BiosIS Other Viable

TEMI: AHERA 7400 Bulk/NOB EPA Level II

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	JN-WM-01A	Asphalt Shingle			
2	JN-WM-01B	Asphalt Shingle			
3	JN-WM-02A	Vapor Barrier			
4	JN-WM-02B	Vapor Barrier			
5	JN-WM-03A	White 12x12 Vinyl Tile			
6	JN-WM-03B	White 12x12 Vinyl Tile			
7	JN-WM-04A	Rose 12x12 Vinyl Tile			
8	JN-WM-04B	Rose 12x12 Vinyl Tile			
9	JN-WM-05A	Blue 12x12 Vinyl Tile			
10	JN-WM-05B	Blue 12x12 Vinyl Tile			
11	JN-WM-06A	Drywall			

Lab Use Only
 Log-In _____
 Report _____

Relinquished by: *C. Paquet*

Date: 4-13-16

Received by: *RS*

Date: 4-13-16

Relinquished by: *RECEIVED*

Date: APR 14 2016

Received by: _____

Date: _____

61047

pg 2 of 2

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 333 Jefferson St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One)

PLM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: 5 Day TTP Except Plaster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	SN-14M-06B	Drywall			
13	SN-14M-07A	Colony			
14	SN-14M-07B	Colony			
15	SN-14S-01A	Plaster			
16	SN-14S-01B				
17	SN-14S-01C				
18	SN-14S-01D				
19	SN-14S-01E				

Relinquished by: Compaquet Received by: MS

Date: 4-13-16 Date: 4-13-16

Relinquished by: RECEIVED

Date: APR 14 2016

Received by: _____

Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 3133 Jefferson St., Muskegon Heights, Michigan

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

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3133 Jefferson St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
JN-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
JN-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
JN-HM-02A	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
JN-HM-02B	Vapor Barrier	Yes	M	Category II	ND	Exterior	NA
JN-HM-03A	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living	NA
JN-HM-03B	White 12"x12" Vinyl Tile	No	M	Category I	ND/ND	Living	NA
JN-HM-04A	Rose 12"x12" Vinyl Tile	No	M	Category I	ND	Kitchen	NA
JN-HM-04B	Rose 12"x12" Vinyl Tile	No	M	Category I	ND	Kitchen	NA
JN-HM-05A	Blue 12"x12" Vinyl Tile	No	M	Category I	ND	Bathroom	NA
JN-HM-05B	Blue 12"x12" Vinyl Tile	No	M	Category I	ND	Bathroom	NA
JN-HM-06A	Drywall	No	M	Category II	ND	Kitchen Wall	NA
JN-HM-06B	Drywall	No	M	Category II	ND	2 nd Fl. N Bedroom Wall	NA
JN-HM-07A	Glazing	Yes	M	Category II	ND	Living	NA
JN-HM-07B	Glazing	Yes	M	Category II	ND	Living	NA
JN-HS-01A	Plaster	No	S	Category II	ND	Living Wall	NA
JN-HS-01B	Plaster	No	S	Category II	ND/ND	Dining Wall	NA
JN-HS-01C	Plaster	No	S	Category II	ND/ND	Bedroom Wall	NA
JN-HS-01D	Plaster	No	S	Category II	ND/ND	Living Ceiling	NA
JN-HS-01E	Plaster	No	S	Category II	ND	Kitchen Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

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

Table 3 - Summary of Presumed Asbestos Containing Materials, 3133 Jefferson St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Living (1 register, 10 sq. ft.) Dining (1 register, 10 sq. ft.) Bedroom (1 register, 10 sq. ft.) 2 nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.) 2 nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	135 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

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

Table 4 - Summary of All Asbestos Containing Materials, 3133 Jefferson St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Living (1 register, 10 sq. ft.)			
Dining (1 register, 10 sq. ft.)			
Bedroom (1 register, 10 sq. ft.)			
2 nd Floor E Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)	HVAC Duct Wrap	Yes	135 sq. ft.
2 nd Floor S Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
2 nd Floor W Bedroom (1 register, 10 sq. ft. and vertical chase to basement, 25 sq. ft.)			
		Total	135 sq. ft.

Notes:

Abbreviations

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

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

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

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



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

April 22, 2016

Mr. Tim Burgess
Muskegon County Land Bank
Land Bank Coordinator
173 E. Apple Avenue, Suite 104
Muskegon, MI 49442

***RE: Asbestos Containing Material and Hazardous Materials Inspection
3136 Howden St., Muskegon Heights, MI 49444
Parcel ID: 26-635-276-0023-00***

Dear Mr. Burgess:

Red Cedar Consulting has completed an asbestos-containing material (ACM) and hazardous materials inspection at 3136 Howden St., Muskegon Heights, Michigan (Subject Property). This inspection was completed at the request of the Muskegon County Land Bank to comply with the United States Environmental Protection Agency (USEPA) requirements for demolition and renovation set forth under the National Emissions Standards for Hazardous Air Pollutants (NESHAP, 40 CFR Part 61). This inspection was also completed to comply with the Occupational Safety and Health Administration (OSHA) Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

SUBJECT PROPERTY

The Subject Property is comprised of a .115 acre residential parcel which contains an approximate 990 square foot residential building (the Building) constructed in 1940. The Building was constructed on a concrete block basement with two aboveground floors. The exterior walls of the Building were finished with wood lap while the roof was sealed with asphalt shingles. The Building can be further divided into a living room, dining room, kitchen, bathroom and a bedroom on the first floor while the second floor contains three bedrooms and a bathroom.

VISUAL INSPECTION AND SAMPLING

Asbestos Containing Materials Inspection

Mr. Aaron Paquet of Red Cedar Consulting (Red Cedar), an accredited State Of Michigan/EPA Asbestos Building Inspector (Accreditation Number A30955) whom completed training per the Michigan Asbestos

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-276-0023-00

Workers Accreditation Act 440 completed an inspection of the Subject Property on April 13, 2016 for suspected asbestos containing building materials.

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

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

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

- Asphalt Shingle
- Linoleum
- 12"x12" Vinyl Tile
- 1'x1' Ceiling Tile
- Glazing
- Drywall
- Plaster

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

Hazardous Materials Inspection

On April 13, 2016 the Subject Property was also inspected for the presence of hazardous materials which include but are not limited to polychlorinated biphenyls (PCBs) and potential mercury containing equipment and any items or containers that may contain or be classified as a hazardous or regulated material. Each material, if identified, was documented along with the approximate location. Any materials identified as hazardous are included in Table 1.

INSPECTION RESULTS AND RECOMMENDATIONS

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

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

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 April 13, 2016 identified HVAC Duct Wrap at the following locations within the basement, first and second floors:

- Bedroom (1 register, 10 sq. ft.)

Category I ACM

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

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.

- Bedroom (1 register, 10 sq. ft.)

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

Hazardous Materials

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

- Smoke Detector (2)
- Thermostat (1)
- Automobile Tires (13)
- Television (2)

REGULATORY REQUIREMENTS

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

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-276-0023-00

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

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

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

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

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

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

MIOSHA-CSHD-Asbestos Program
State of Michigan
Phone: 517-284-7680
Email: asbestos@michigan.gov

Project No.: 16-1070
Muskegon County Land Bank
Parcel ID: 26-635-276-0023-00

DISCLAIMER

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

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

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

Sincerely,
Red Cedar Consulting



Aaron Paquet
Michigan/EPA Certified Asbestos Building Inspector
(A30955)

Red Cedar Consulting

Attachment 1
APEX Research Laboratory Analytical Results



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3136 Howden St

Report To:

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

ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 01 Cust. #: ST-HM-01A Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64048 - 02 Cust. #: ST-HM-01B Material: Asphalt Shingle Location: Appearance: black, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64048 - 03 Cust. #: ST-HM-02A Material: Brown Linoleum Location: Appearance: brown, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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



NVLAP Lab Code 102118-0



Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3136 Howden St

Report To:

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

ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 04 Cust. #: ST-HM-02B Material: Brown Linoleum Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 20% Other - 80%
Lab ID #: 64048 - 05 Cust. #: ST-HM-03A Material: White 12x12 Vinyl Tile Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Fiberglass - 5% Other - 95%
Lab ID #: 64048 - 06 Cust. #: ST-HM-03B Material: White 12x12 Vinyl Tile Location: Appearance: white, nonfibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 07 Cust. #: ST-HM-04A Material: Black/White 12x12 Vinyl Tile Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64048 - 08 Cust. #: ST-HM-04B Material: Black/White 12x12 Vinyl Tile Location: Appearance: beige,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64048 - 09 Cust. #: ST-HM-05A Material: White 1x1 Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%

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

Robert T. Letarte Jr., Laboratory Director

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P.O. Box 13216
Lansing, MI 48901

ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 09a Cust. #: ST-HM-05A Material: Glue Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64048 - 10 Cust. #: ST-HM-05B Material: White 1x1 Ceiling Tile Location: Appearance: brown,fibrous,homogenous Layer: 1 of 2	Asbestos Present: NO No Asbestos Observed	Cellulose - 90% Other - 10%
Lab ID #: 64048 - 10a Cust. #: ST-HM-05B Material: Glue Location: Appearance: brown,nonfibrous,homogenous Layer: 2 of 2	Asbestos Present: NO No Asbestos Observed	Other - 100%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64048
Date Collected: 04/13/16
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Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 11 Cust. #: ST-HM-06A Material: Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64048 - 12 Cust. #: ST-HM-06B Material: Glazing Location: Appearance: grey,nonfibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Other - 100%
Lab ID #: 64048 - 13 Cust. #: ST-HM-07A Material: Grey Linoleum Location: Appearance: grey,fibrous,homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%

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

Robert T. Letarte Jr., Laboratory Director

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Certificate of Laboratory Analysis

Test Method, Polarized Light Microscopy (PLM)

Project: 3136 Howden St

Report To:

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

ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 14 Cust. #: ST-HM-07B Material: Grey Linoleum Location: Appearance: beige, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64048 - 15 Cust. #: ST-HM-08A Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 5% Other - 95%
Lab ID #: 64048 - 16 Cust. #: ST-HM-08B Material: Drywall Location: Appearance: grey, fibrous, homogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 20% Fiberglass - 5% Other - 775%

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

Robert T. Letarte Jr., Laboratory Director

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Lansing, MI 48901

ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 17 Cust. #: ST-HS-01A Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 30% Other - 70%
Lab ID #: 64048 - 18 Cust. #: ST-HS-01B Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64048 - 19 Cust. #: ST-HS-01C Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%

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

Robert T. Letarte Jr., Laboratory Director

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ARI Report # 16-64048
Date Collected: 04/13/16
Date Received: 04/13/16
Date Analyzed: 04/21/16
Date Reported: 04/21/16

Sample Information	Asbestos Type/Percent	Non-Asbestos
Lab ID #: 64048 - 20 Cust. #: ST-HS-01D Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: 64048 - 21 Cust. #: ST-HS-01E Material: Plaster Location: Appearance: grey, fibrous, nonhomogenous Layer: 1 of 1	Asbestos Present: NO No Asbestos Observed	Cellulose - 2% Other - 98%
Lab ID #: Cust. #: Material: Location: Appearance: Layer: of	Asbestos Present:	

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

Robert T. Letarte Jr., Laboratory Director

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NVLAP Lab Code 102118-0

APEX Research, Inc.

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



Client Name: Red Cedar Consulting

Address: PO Box 13216

City, St., Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 3136 Kardon St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
 Log-In _____
 Report _____

Turn Around Times: (Circle One)

PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour

48 hour 72 hour

Other: Survey TTP Except Paster

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
 Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
 Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
 TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
1	ST-WM-01A	Asphalt Shingle			
2	ST-WM-01B	Asphalt Shingle			
3	ST-WM-01A	Brown Linoleum			
4	ST-WM-02B	Brown Linoleum			
5	ST-WM-03A	White 12x12 Vinyl Tile			
6	ST-WM-03B	White 12x12 Vinyl Tile			
7	ST-WM-04A	Black & White 12x12 Vinyl Tile			
8	ST-WM-04B	Black & White 12x12 Vinyl Tile			
9	ST-WM-05A	White 1x1 Ceiling Tile			
10	ST-WM-05B	White 1x1 Ceiling Tile			
11	ST-WM-06A	Coloring			

RECEIVED

Relinquished by: Aaron Paquet

Received by: UTS

Date: 4-13-16

Date: 4-13-16

Relinquished By: [Signature]

Received by: _____

Date: APEX RESEARCH

Date: _____

64048

pg 2 of 2

APEX Research, Inc.

11054 Hi Tech Drive, Whitmore Lake, MI 48189
Phone: 734-449-9990
E-mail: apexresearch@charterni.net
Fax: 734-449-9991



Client Name: Red Cedar Consulting

Address: PO Box 13216
Lansing, MI 48901

City, St, Zip: Lansing, MI 48901

Phone: (888) 449-4566 Fax: (888) 448-8739

Date of Survey: 4-13-16

Project: 336 Warden St.

Project #:

Contact Person: Aaron Paquet

Lab Use Only
Log-In _____
Report _____

Turn Around Times: (Circle One) PIM EPA 600, PC all samples with a detection of <5% ACM. apaquet@redcedarconsulting.net

Rush 24 hour
48 hour 72 hour

Asbestos: Bulk Wipe _____ Point Count _____ PCM _____
Lead: Bulk _____ Wipe _____ Air _____ Paint _____ Soil _____
Mold: Bulk _____ Tape _____ BioSIS _____ Other _____ Viable _____
TEM: AHERA 7400 _____ Bulk/NOB _____ EPA Level II _____

Other: ST-145-018 ST-145-019 ST-145-020 ST-145-021 ST-145-022 ST-145-023 ST-145-024 ST-145-025 ST-145-026 ST-145-027 ST-145-028 ST-145-029 ST-145-030 ST-145-031 ST-145-032 ST-145-033 ST-145-034 ST-145-035 ST-145-036 ST-145-037 ST-145-038 ST-145-039 ST-145-040 ST-145-041 ST-145-042 ST-145-043 ST-145-044 ST-145-045 ST-145-046 ST-145-047 ST-145-048 ST-145-049 ST-145-050 ST-145-051 ST-145-052 ST-145-053 ST-145-054 ST-145-055 ST-145-056 ST-145-057 ST-145-058 ST-145-059 ST-145-060 ST-145-061 ST-145-062 ST-145-063 ST-145-064 ST-145-065 ST-145-066 ST-145-067 ST-145-068 ST-145-069 ST-145-070 ST-145-071 ST-145-072 ST-145-073 ST-145-074 ST-145-075 ST-145-076 ST-145-077 ST-145-078 ST-145-079 ST-145-080 ST-145-081 ST-145-082 ST-145-083 ST-145-084 ST-145-085 ST-145-086 ST-145-087 ST-145-088 ST-145-089 ST-145-090 ST-145-091 ST-145-092 ST-145-093 ST-145-094 ST-145-095 ST-145-096 ST-145-097 ST-145-098 ST-145-099 ST-145-100

Lab ID #	Client ID #	Material/Location	Volume	Area	Results
12	ST-145-018	Coating			
13	ST-145-019	Coating			
14	ST-145-020	Coating			
15	ST-145-021	Dry wall			
16	ST-145-022	Dry wall			
17	ST-145-023	Plaster			
18	ST-145-024				
19	ST-145-025				
20	ST-145-026				
21	ST-145-027				

RECEIVED

Relinquished by: [Signature] Received by: [Signature]

Date: 4-13-16 Date: 4-13-16

Relinquished by: [Signature] Received by: _____

Date: _____ Date: _____

Tables

Table 1 - Summary of Hazardous Materials, 3136 Howden St., Muskegon Heights, Michigan

Hazardous Materials Description and Location		
Location	Material Description	Quantity
Exterior	Automobile Tires	11
Dining	Smoke Detector	2
Living	Thermostat	1
Kitchen	Automobile Tires	2
Basement	Television	2

Table 2 - Summary of Sample Descriptions and Asbestos Laboratory Results, 3136 Howden St., Muskegon Heights, Michigan

Sample Number	Sample Description				% Asbestos Laboratory Result	Sample Location	Approx. Material Quantity
		Friable	Material Type	Material Classification			
ST-HM-01A	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-01B	Asphalt Shingle	No	M	Category I	ND	Exterior	NA
ST-HM-02A	Brown Linoleum	No	M	Category I	ND	Living	NA
ST-HM-02B	Brown Linoleum	No	M	Category I	ND	Living	NA
ST-HM-03A	White 12"x12" Vinyl Tile	No	M	Category I	ND	Dining	NA
ST-HM-03B	White 12"x12" Vinyl Tile	No	M	Category I	ND	Dining	NA
ST-HM-04A	Black & White 12"x12" Vinyl Tile	No	M	Category I	ND	Kitchen	NA
ST-HM-04B	Black & White 12"x12" Vinyl Tile	No	M	Category I	ND	Kitchen	NA
ST-HM-05A	White 1'x1' Ceiling Tile	Yes	M	Category II	ND/ND	Dining	NA
ST-HM-05B	White 1'x1' Ceiling Tile	Yes	M	Category II	ND/ND	Dining	NA
ST-HM-06A	Glazing	Yes	M	Category II	ND	Living	NA
ST-HM-06B	Glazing	Yes	M	Category II	ND	Living	NA
ST-HM-07A	Gray Linoleum	No	M	Category I	ND	2 nd Fl. Bathroom	NA
ST-HM-07B	Gray Linoleum	No	M	Category I	ND	2 nd Fl. Bathroom	NA
ST-HM-08A	Drywall	No	M	Category II	ND	2 nd Fl. Ceiling	NA
ST-HM-08B	Drywall	No	M	Category II	ND	2 nd Fl. Wall	NA
ST-HS-01A	Plaster	No	S	Category II	ND	Living Wall	NA
ST-HS-01B	Plaster	No	S	Category II	ND	Bedroom Wall	NA
ST-HS-01C	Plaster	No	S	Category II	ND	Dining Wall	NA
ST-HS-01D	Plaster	No	S	Category II	ND	Dining Ceiling	NA
ST-HS-01E	Plaster	No	S	Category II	ND	Bedroom Ceiling	NA

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material
 PC = Point Count Analysis
 CH = Chrysotile Asbestos

Abbreviations

NQ = Not quantified
 NA = Not applicable
 ND = Not detected. Laboratory result is less than 1 % asbestos
 lin. ft. = linear feet
 sq. ft. = square feet

Asbestos Containing Material (ACM) is defined as any material containing more than 1 percent asbestos as determined utilizing Polarized Light Microscopy.

Table 3 - Summary of Presumed Asbestos Containing Materials, 3136 Howden St., Muskegon Heights, Michigan

Asbestos Containing Material Description and Location					Approx. Quantity
Location	Material Description	Friable	Condition	Material Type	
Bedroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	Fair	TSI	10 sq. ft.

Notes:

Material Types

M = Miscellaneous building material
 TSI = Thermal System Insulation
 S = Surfacing Material

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Table 4 - Summary of All Asbestos Containing Materials, 3136 Howden St., Muskegon Heights, Michigan

Interior - Asbestos Containing Materials			
Location	Material Description	Friable	Approx. Quantity
Bedroom (1 register, 10 sq. ft.)	HVAC Duct Wrap	Yes	10 sq. ft.
	Total		10 sq. ft.

Notes:

Abbreviations

lin. ft. = linear feet
 sq. ft. = square feet

Shaded/Bolded = Friable ACM and any Category I and Category II non-friable ACM that has a high probability of becoming crumbled, pulverized, or reduced to powder by the demolition or renovation activities that must be properly abated prior to commencement of any demolition/renovation activities.

Demolition/renovation activities completed with intact Category I non-friable ACM are regulated by OSHA and must be completed following the OSHA Asbestos Standards for Construction (29 CFR 1926.1101) which limits employee exposure to asbestos.

Please note that a Negative Pressure Enclosure must be utilized during abatement when Site Conditions Warrant. Examples of these conditions include the abatement of Plaster and Vermiculite insulation, HVAC Duct Wrap in Poor Condition, and Air-O-Cell/Mag Pipe Wrap. Conditions outside of these should be assessed on a case by case basis during the Asbestos Abatement Contractors site walk and Work Plan Preparation.