5533 and 5535 Sun Valley Drive ACM Abatement and Demolition Scope of Work to Procure Abatement and Demolition Contractor

Professional Services Required

Contractor services required from a certified or registered contractor, licensed by the State of Florida and properly insured to perform asbestos abatement, residential property demolition, site restoration, and stabilization activities. Services will be procured through competitive bids consistent with Escambia County procurement policy. All contractors desiring to bid on the advertised project must meet minimum qualifications, as established by the Escambia County Board of Commissioners, to be deemed responsive.

Project Summary

Contractors will provide their competitive bid to perform asbestos abatement services and to demolish and remove two residential structures located specifically at 5533 and 5535 Sun Valley Drive. Improved elements are to include, but not be limited to: primary structures, outbuildings and accessory units, fences, sidewalks and driveways, utilities, underground appurtenances such as pools and basements, tanks, and any other non-vegetative improvements on the property. The sites listed in *Table 1*, in addition to others of similar nature, shall be returned to a graded, stabilized condition that is properly leveled and sodded to encourage vegetative growth. Refer to *Table 1* for property specifications known by Escambia County as of the date of this invitation to bid. All activities performed under the resultant contract shall be completed in accordance with applicable federal, state and local laws, regulations, policies, and procedures.

Contractors must consider the following items in their competitive bid:

- Asbestos containing materials (ACMs) at 5535 Sun Valley Drive, must be abated prior to demolition disturbance by a licensed asbestos abatement contractor and disposed of at an approved solid waste disposal site.
- 2. Disposal of all project debris must be properly disposed of at an appropriately permitted facility. Burying or burning of any materials is not allowed. Include the following costs in the bid:
 - a. Base Bid Costs of removal, disposal, and restoration of specific properties listed in *Table*1. Landfill fees must be included.
 - b. Provide lump sum costs to demolish and remove property improvements based upon home sizes of 1140 square feet and 2856 square feet. Home size includes the total square footage of base area, garage, open porch, attached and detached accessory buildings and structures.
- 3. The selected contractor must discontinue, turn off, remove, abandon, and/or cap utilities. The selected contractor is responsible to coordinate with utility companies, and only licensed contractors may handle underground utilities. All utilities shall be removed and capped at the right of way. This includes, but is not limited to:
 - a. Physically capping water service and sewer lines.
 - b. Turning off electricity and natural gas, and removing service lines.
 - c. Water wells must be closed using the "full grout" system as required by the Northwest Florida Water Management District and stipulated in Florida Administrative Code,

- Chapter 40A-3. Well closures are to be performed by a Florida Licensed Water Well Contractor. Proof of a final inspection must be provided with the selected contractor's invoice.
- d. Septic tanks must be removed and the area filled with compacted clean fill. Septic tanks must be pumped and demolished according to the requirements of the Escambia County Health Department as stipulated in Florida Administrative Code, Chapter 64E-6. Septic tank closures must be performed by a Florida Licensed Plumbing contractor or a Licensed Septic Tank Contractor. Proof of a final inspection must be provided with the selected contractor's invoice.
- e. Underground oil tanks must be removed, along with small quantity of soil around the fill pipe if there is any contamination.
- f. Above-ground oil tanks and propane tanks must be removed.
- 4. Underground appurtenances, such as pools and basements, must be removed to at least 1 foot below the ground. Openings must be made in the bottom of the structure to allow for drainage, and the excavated area must be backfilled with compacted clean fill to be level with the surrounding ground. If natural drainage is insufficient, pool water pumping must meet local, state, and federal regulations and shall not impact adjacent properties and their owners.
- 5. Once improvements and debris are removed, the land must be prepared to minimize erosion and encourage vegetative cover. If demolition results in excavation, holes, or unusual contours, grading and/or fill may be required to return the site to a natural state, including appropriate vegetation. All disturbed areas must be graded, leveled, and sodded. The top twelve inches of soil should be capable of supporting vegetation. No removal of trees will be allowed unless necessary for improvement demolition or removal as determined by County officials.
 - All permits and associated fees are to be obtained for and paid by the selected contractor and must be posted appropriately. Permits include but not limited to building permits for demolition, central sewer closure, septic tank closure permits, well closure permits, and other permits required by County, State, Federal, and community regulations.
- 6. Table 1 provides a summary of the two properties. Appendix A contains the boundary survey for 5533 Sun Valley. Appendix B contains Chris Jones property appraiser information. Appendix C contains Boundary Survey for 5535 Sun Valley Dr. Appendix D contains the asbestos survey information previously performed at each location.

Contract Time and Liquidated Damages

The Work shall be fully complete within **Sixty (60) consecutive calendar days** from the date of the Notice to Proceed Commencement date.

Liquidated damages of \$1000.00 each day will be assessed for each day that completion of the project is delayed.

Bidder Qualifications

All contractors responding to the Bid Request must demonstrate the following qualifications to be considered eligible: Provide a copy of Certification or Registration as a contractor issued by the State of Florida;

Table 1. Property Specifications

Property	1	2
Address	5533 Sun Valley Drive	5535 Sun Valley Drive
City	Pensacola	Pensacola
Zip Code	32505	32505
Parcel Number	441S302002002011	441S302002003011
Legal Description	BEG AT INTER OF W LI OF UNITED GAS LINE PIPE CO 30 FT R/W AND N R/W LI OF MICHIGAN AVE WLY ALG N R/W LI 666 FT TO W R/W LI OF 66 FT RD KNOWN AS SUN VALLEY DRIVE NLY ALG W R/W LI OF RD 2400 FT FOR POB CONT SAME COURSE 100 FT WLY PARL TO MICHIGAN AVE 200 FT SLY PARL TO MICHIGAN AVE 200 FT TO POB OR 7876 P 1593	BEG AT INTER OF W LI OF UNITED GAS PIPE LINE COMPANYS 30 FT R/W & N SIDE OF MICHIGAN AVE WLY ALG AN EXTEN OF N R/W LI OF SD MICHIGAN AVE 666 FT TO AN EXTEN OF W R/W LI OF SUN VALLEY DRIVE NLY ALG SD EXTEN AND ALG SD R/W LI OF SUN VALLEY DRIVE 2500 FT
Structure Area (SF)	2856	1140
Presence of Other	-Concrete	Above ground pool
Elements	driveway, Chain	Block wall
	link fence	Wood fence
Hazardous Materials	Not identified	ACMs as identified in
Identified		survey
Accessory unit or	-Metal storage building	-Wood Storage
outbuilding presence*		Building

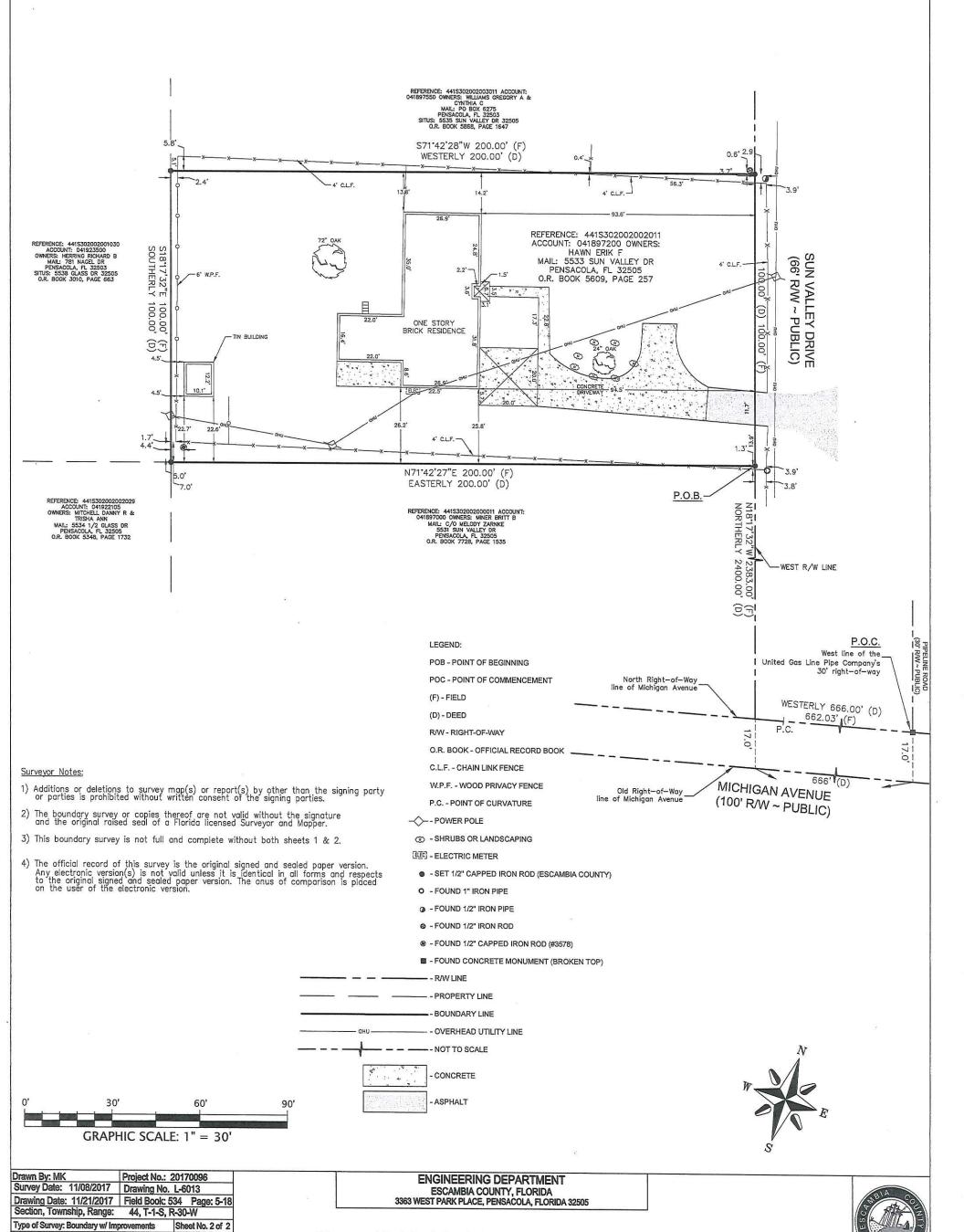
^{*}Size of accessory unit not included in the structure area.

^{**}Note: Data contained in Table 1 regarding structure area and presence of underground elements and accessory units are sourced from the Escambia County Property Appraiser database, current as of March 2018.

APPENDIX A

Boundary Survey: 5533 Sun Valley Dr.

BOUNDARY SURVEY EXHIBIT "A"



Unless accompanied by sheet one that bears the signature and original raised seal of a Florida licensed Surveyor and Mapper this drawing, sketch, plat, or map is for informational purposes only and is not valid.

Revisions:

Date:

BOUNDARY SURVEY EXHIBIT "A"

Legal Description (Per O.R. Book 5609, Page 257) November 22, 2017

Begin at the intersection of the West line of the United Gas Line Pipe Company's 30 foot right-of-way and the North side of County road known as Michigan Avenue; thence run Westerly along an extension of North right-of-way line of said Michigan Avenue a distance of 666.00 feet to an extension of the West right-of-way line of a 66 foot road known as Sun Valley Drive; thence Northerly along said extension and along said right-of-way line of Sun Valley Drive a distance of 2400 feet for the POINT OF BEGINNING; thence continue Northerly same course a distance of 100 feet; thence run Westerly and parallel to Michigan Avenue a distance of 200 feet; thence run Southerly and parallel to the West line of Sun Valley Drive a distance of 100 feet; thence run Easterly and parallel to Michigan Avenue a distance of 200 feet to the POINT OF BEGINNING. Lying and being in Section 44, Township 1 South, Range 30 West.

Also described as Follows: (Does not close)

Commencing at the Northwest corner of Section 44, Township 1 South, Range 30 West; thence East along North line of said Section 44for 3905.16 feet; thence 87°50' right for 1467 feet; thence 87°33' leftfor 466 feet to the POINT OF BEGINNING; thence continue along same line for 200 feet; thence 92°27' left for 100 feet; thence 87°33' left for 200 feet; thence 92°27' left for 100 feet to the POINT OF BEGINNING. Said parcel contains 0.46 acre, more or less.

Certified to: Escambia County, Florida Board of County Commissioners

SURVEYOR'S NOTES:

- 1) Measurements were made in accordance with the United States Standard Foot.
- 2) Basis of Bearings Reference: Grid North and the grid bearings shown hereon are based on the following:
 - a. Projection Zone: Florida North (State Plane)
 - b. Projection Type: Lambert Conformal Conic
 - c. Datum: North American Datum of 1983 with a datum tag of 2011 (NAD83 (2011))
- 3) The sketch shown hereon is subject to any facts that may be disclosed by a full and accurate title search.
- 4) The sketch shown hereon is subject to deeds of record, unrecorded deeds, easements, right-of-way, building setbacks, restrictive covenants, or other instruments which could affect the boundaries or use of the subject property.
- 5) This survey does not reflect or guarantee ownership.
- 6) Additions or deletions to survey map(s) or report(s) by other than the signing party or parties is prohibited without written consent of the signing parties.
- 7) The Boundary Survey or copies thereof are not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.
- 8) Underground utilities were not located.
- 9) No attempt was made to locate any underground foundations.
- 10) The description and boundary survey are not full and complete without the other.
- 11) Documents used in the preparation of this Boundary survey: Escambia County Property Appraiser's Maps. the Plat of Crescent Lake ~ Unit 8, recored in Plat Book 7, Page 3 of the Public Records of Escambia County, Florida; a FDOT R/W map of S-296 (W. Michigan Avenue, Section Number 4861-152. Westcor Land Title Insurance Company American Land Title Association Commitment, Plant File #17-37015, Effective Date: July 6, 2017 @ 8:00AM.
- 12) Boundary lines as shown were determined by a boundary survey performed by Escambia County.
- 13) The official record of this survey is the original signed and sealed paper version. Any electronic version(s) is not valid unless it is identical in all forms and respects to the original signed and sealed paper version. The onus of comparison is placed on the user of the electronic version.

Drawn By: MK Project No.: 20170096
Survey Date: 11/08/2017 Drawing No. L-6013
Drawing Date: 11/21/2017 Field Book: 534 Page: 5-18
Section, Township, Range: 44, T-1-S, R-30-W
Type of Survey: Boundary w/ Improvements Sheet No. 1 of 2
Revisions: Date:

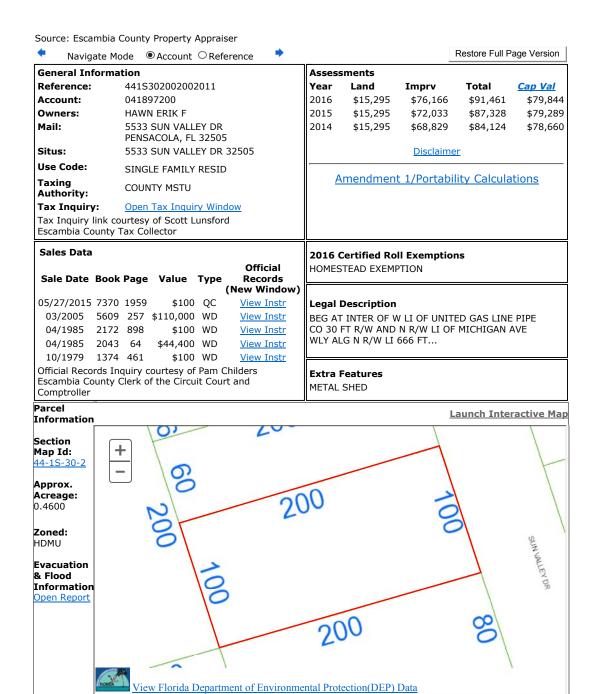
ENGINEERING DEPARTMENT
ESCAMBIA COUNTY, FLORIDA
3363 WEST PARK PLACE, PENSACOLA, FLORIDA 32505

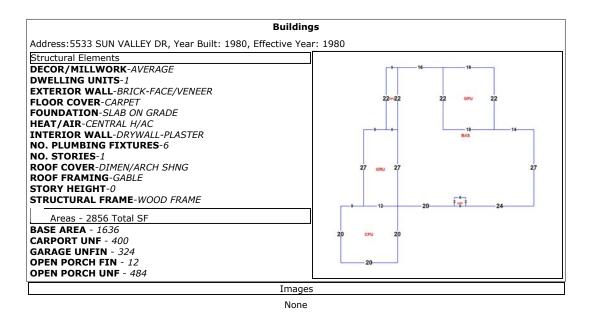
Prepared at the request of the Escambia County Engineering Department.



Date: 11-22-201

APPENDIX B Chris Jones Property Appraiser Information





The primary use of the assessment data is for the preparation of the current year tax roll. No responsibility or liability is assumed for inaccuracies or errors.







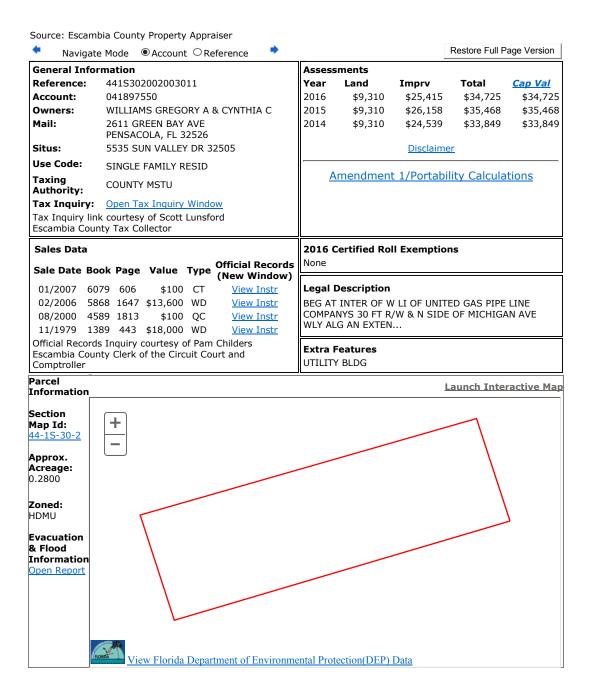


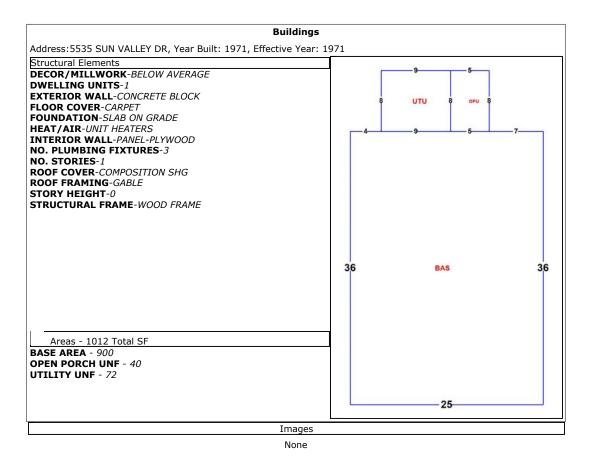
5533 Sun Valley Dr.











The primary use of the assessment data is for the preparation of the current year tax roll. No responsibility or liability is assumed for inaccuracies or errors.









5535 Sun Valley Drive





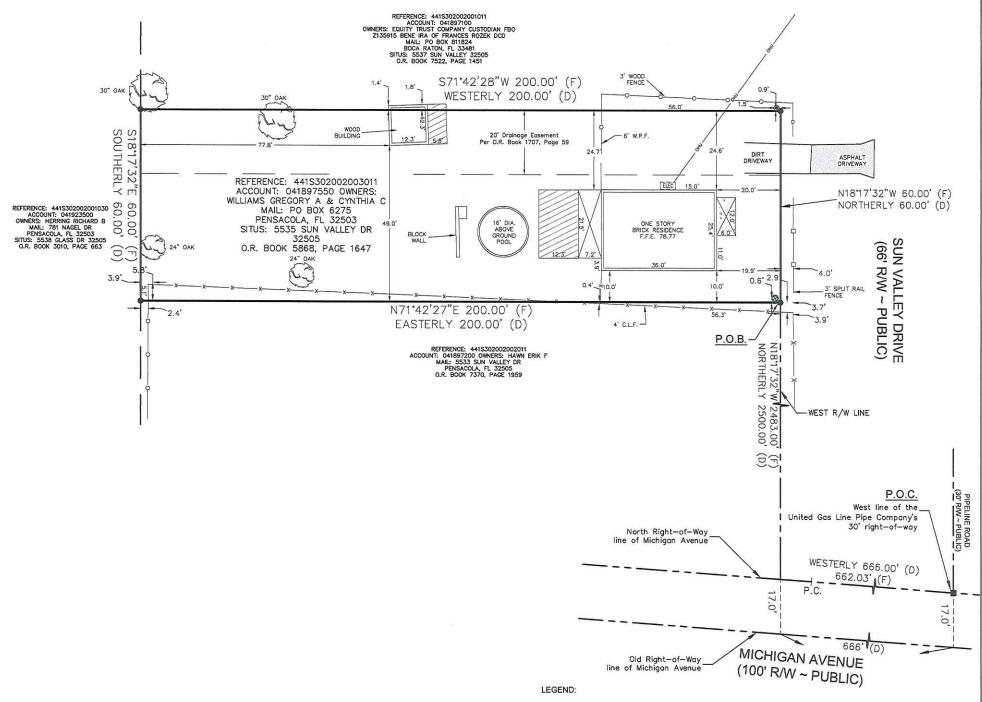




APPENDIX C

Boundary Survey: 5535 Sun Valley Dr.

BOUNDARY SURVEY EXHIBIT "A"



Surveyor Notes:

- Additions or deletions to survey map(s) or report(s) by other than the signing party or parties is prohibited without written consent of the signing parties.
- 2) The boundary survey or copies thereof are not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.
- 3) This boundary survey is not full and complete without both sheets 1 & 2.
- 4) The official record of this survey is the original signed and sealed paper version.

 Any electronic version(s) is not valid unless it is identical in all forms and respects to the original signed and sealed paper version. The onus of comparison is placed on the user of the electronic version.

- POB POINT OF BEGINNING
- POC POINT OF COMMENCEMENT
- (F) FIELD
- (D) DEED
- R/W RIGHT-OF-WAY
- O.R. BOOK OFFICIAL RECORD BOOK
- C.L.F. CHAIN LINK FENCE
- W.P.F. WOOD PRIVACY FENCE
- F.F.E. FINISH FLOOR ELEVATION
- → POWER POLE
 → SHRUBS OR LANDSCAPING
 → ELECTRIC METER
- SET 1/2" CAPPED IRON ROD (ESCAMBIA COUNTY)
- O FOUND 1/2" IRON PIPE
- - FOUND 1/2" CAPPED IRON ROD (#6993)
- FOUND CONCRETE MONUMENT (BROKEN TOP)
 R/W LINE
 PROPERTY LINE

- ASPHALT

WOOD

- BOUNDARY LINE
- OVERHEAD UTILITY LINE
- NOT TO SCALE

- CONCRETE





Drawn By: MK	Project No.: 20170096		
	Drawing No. L-6013		
	Field Book: 534 Page: 5-18		
Section, Township, Range:	44, T-1-S, R-30-W		
Type of Survey: Boundary w/ Im	provements Sheet No. 2 of 2		
Revisions:	Date:		

ENGINEERING DEPARTMENT ESCAMBIA COUNTY, FLORIDA 3363 WEST PARK PLACE, PENSACOLA, FLORIDA 32505

Unless accompanied by sheet one that bears the signature and original raised seal of a Florida licensed Surveyor and Mapper this drawing, sketch, plat, or map is for informational purposes only and is not valid.



BOUNDARY SURVEY EXHIBIT "A"

Legal Description (Per O.R. Book 5868, Page 1647) November 22, 2017

Begin at the intersection of the West line of the United Gas Line Pipe Company's 30 foot right-of-way and the North side of County road known as Michigan Avenue; thence run Westerly along an extension of North right-of-way line of said Michigan Avenue a distance of 666.00 feet to an extension of the West right-of-way line of a 66 foot road known as Sun Valley Drive; thence Northerly along said extension and along said right-of-way line of Sun Valley Drive a distance of 2500 feet for the POINT OF BEGINNING; thence continue Northerly same course a distance of 60 feet; thence run Westerly and parallel to Michigan Avenue a distance of 200 feet; thence run Southerly and parallel to the West line of Sun Valley Drive a distance of 60 feet; thence run Easterly and parallel to Michigan Avenue a distance of 200 feet to the POINT OF BEGINNING. Lying and being in Section 44, Township 1 South, Range 30 West, Escambia County, Florida..

Said parcel contains 0.28 acre, more or less.

Certified to: Escambia County, Florida Board of County Commissioners

SURVEYOR'S NOTES:

- Measurements were made in accordance with the United States Standard Foot.
- 2) Basis of Bearings Reference: Grid North and the grid bearings shown hereon are based on the following:
 - Projection Zone: Florida North (State Plane)
 - Projection Type: Lambert Conformal Conic
 - Datum: North American Datum of 1983 with a datum tag of 2011 (NAD83 (2011))
- 3) The sketch shown hereon is subject to any facts that may be disclosed by a full and accurate title search.
- 4) The sketch shown hereon is subject to deeds of record, unrecorded deeds, easements, right-of-way, building setbacks, restrictive covenants, or other instruments which could affect the boundaries or use of the subject property.
- 5) This survey does not reflect or guarantee ownership.
- 6) Additions or deletions to survey map(s) or report(s) by other than the signing party or parties is prohibited without written consent of the signing parties.
- 7) The Boundary Survey or copies thereof are not valid without the signature and the original raised seal of a Florida licensed Surveyor and Mapper.
- 8) Underground utilities were not located.
- 9) No attempt was made to locate any underground foundations.
- 10) The description and boundary survey are not full and complete without the other.
- 11) Documents used in the preparation of this Boundary survey: Escambia County Property Appraiser's Maps. the Plat of Crescent Lake ~ Unit 8, recored in Plat Book 7, Page 3 of the Public Records of Escambia County, Florida; a FDOT R/W map of S-296 (W. Michigan Avenue, Section Number 4861-152. Westcor Land Title Insurance Company American Land Title Association Commitment, Plant File #17-37014, Effective Date: July 3, 2017 @ 8:00AM.
- 12) Boundary lines as shown were determined by a boundary survey performed by Escambia County.
- 13) The official record of this survey is the original signed and sealed paper version. Any electronic version(s) is not valid unless it is identical in all forms and respects to the original signed and sealed paper version. The onus of comparison is placed on the user of the electronic version.

Project No.: 20170096 Drawn By: MK Survey Date: 11/08/2017 Drawing No. L-6013 Drawing Date: 11/21/2017 | Field Book: 534 | Page: 5-18 Section, Township, Range: 44, T-1-S, R-30-W Type of Survey: Boundary w/ Improvements Sheet No. 1 of 2 Revisions: Date:

ENGINEERING DEPARTMENT ESCAMBIA COUNTY, FLORIDA 3363 WEST PARK PLACE, PENSACOLA, FLORIDA 32505

Prepared at the request of the Escambia County Engineering Department.

Date: 11-22-201) State of Florida



APPENDIX D NOVA Asbestos Survey Report

ASBESTOS CONTAINING MATERIALS SURVEY



ESCAMBIA COUNTY PROPERTIES Single-Family Residence 5533 Sun Valley Drive Pensacola, Escambia County, Florida

PREPARED FOR:

Ms. Mariana Correa, Project Coordinator Escambia County Engineering Department 3363 West Park Place Pensacola, Florida 32505

NOVA Project Number: 10116-8318002

February 16, 2018





February 16, 2018

ESCAMBIA COUNTY ENGINEERING DEPARTMENT 3363 West Park Place Pensacola, Florida 32505

Attention: Ms. Mariana Correa, Project Coordinator

Subject: Pre-Demolition Asbestos Containing Materials Survey Report

> ESCAMBIA COUNTY PROPERTIES 5533 Sun Valley Drive

Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002

Dear Ms. Correa:

NOVA Engineering and Environmental LLC (NOVA) has completed the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Pre-Demolition Asbestos Containing Materials (ACMs) Survey for the residence located at 5533 Sun Valley Drive in Pensacola, Escambia County, Florida (Subject Property). We appreciate your selection of NOVA and for the opportunity to be of service on this project. Please feel free to contact us if you have any questions or if we may be of further assistance.

Sheila E. Schneider

Accredited Asbestos Inspector

Sincerely.

NOVA Engineering and Environmental LLC

Stephen A. Shattuck, E.I.

Accredited Asbestos Inspector

Larry G. Schmaltz, P.E., G.C.

Florida Licensed Asbestos Consultant

(#AX009)

Copies Submitted: Addressee (electronic)

TABLE OF CONTENTS

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3.3	ASBESTOS ABATEMENT	. 6

LIST OF APPENDICES

APPENDIX A - Figures and Maps

APPENDIX B - Site Photographs

APPENDIX C - Laboratory Data

APPENDIX D - Qualifications of Recommendations

1.0 SUMMARY

A brief summary of our findings is presented below. This summary is provided for convenience and should not be substituted for review of the full report, including all attachments as provided herein.

1.1 ASBESTOS

During this study, twenty-seven (27) samples of building materials, including flooring materials, wall texture, sealant materials, and roofing material were collected by NOVA and evaluated using Polarized Light Microscopy (PLM), with zero (0) of the analyzed homogeneous sample layers indicating asbestos containing materials (ACM).

Following is a table containing a summary of samples that were collected during the survey:

HSA	Sample Number	Material Type & Location	PLM Analysis	Estimated Quantity	*EPA Cat.
1	SV3 (1-4)	Roofing Shingle	ND	1648 Square Feet	-
2	SV3 (5-8)	Roofing Felt	ND	1648 Square Feet	-
3	SV3 (9-14)	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	ND	1972 Square Feet	-
4	SV3 (15-21)	Drywall Partition Walls	ND	3900 Square Feet	-
5	SV3 (22-24)	HVAC Mastic	ND	10 Square Feet	-
6	SV3 (25-27)	Window Sealant	ND	20 Linear Feet	-

Note: Neither NOVA nor the client will be held responsible for anyone's use of the estimated quantity. It is suggested that anyone responsible for the project prepare their own quantity estimates.

TABLE LEGEND:

HSA: Homogenous Sampling Area QUANTITY ESTIMATE: Estimated Quantity of HSA

PLM ANALYSIS: Chr. = Chrysotile Asbestos **EPA CATEGORY:** F = Friable

Ams. = Amosite Asbestos NF-I = Category I Non-Friable ND = No Asbestos Detected NF-II = Category II Non-Friable

N/A = Not Applicable

The entire building was surveyed at the request of the Client. This was a one-story single-family residence.

Polarized Light Microscopy (PLM) is commonly used for bulk asbestos identification, but it can identify non-asbestos fibers as asbestos. In an effort to eliminate false positives (and costly unnecessary abatement), samples reported as containing between 1% and 10% asbestos can be analyzed/verified by point count. The alternative is to assume the subject material to be asbestos containing. The Occupational Safety and Health Administration (OSHA) Asbestos Standard for Construction Industry 29 CFR 1926.1101 regulates workplace exposure to asbestos. OSHA does not define Asbestos Containing Material on asbestos content. The OSHA

February 16, 2018 NOVA Project Number 10116-8318002

standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities, which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. In addition to worker protection, the means and methods necessary for ACM abatement are the sole responsibility of the abatement contractor.

A complete list of suspected ACM samples obtained is also shown in the laboratory report (included in Appendix C).

2.0 INTRODUCTION

2.1 DESCRIPTION OF SUBJECT PROPERTY

The Subject Property is a single-family residence which is located at 5533 Sun Valley Drive, Pensacola, Escambia County, Florida. The building is a 2856 square foot, one-story, slab on grade, wood-frame structure built in 1980. Per the Escambia County Property Appraiser, this property is identified as parcel number 441S302002002011.

2.2 PURPOSE

As requested by Ms. Mariana Correa from the Escambia County Engineering Department (CLIENT), the Pre-Demolition Asbestos Containing Materials (ACMs) Survey was performed in an effort to identify ACMs at the Subject Property. This work has been performed in general accordance with NOVA Proposal Number 016-30183022 for Professional Services dated January 12, 2018, applicable state and federal regulations, and routine industry practice.

ACM sampling was performed in general accordance with the Asbestos Hazard Emergency Response Act (AHERA) guidelines and ASTM E2356-14," Standard Practice for Comprehensive Building Asbestos Survey" as a Baseline Survey.

2.3 LIMITATIONS

NOVA has performed the Pre-Demolition Asbestos Containing Materials Survey, which is a <u>limited</u> inquiry into a property's environmental status, with respect to asbestos containing materials, and is not sufficient to discover every potential source of ACMs at the property to be evaluated. No survey can wholly eliminate uncertainty regarding the potential ACMs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for ACMs in connection with a property. The level of inquiry is variable. Not every property will warrant the same level of assessment for ACMs. Consistent with good commercial or customary practices, the appropriate level of assessment is guided by the type of property subject to assessment, the intended use of the property, the expertise and risk tolerance of the CLIENT, and the information developed over the course of the assessment.

NOVA's findings, opinions, conclusions and recommendations are based on information obtained through visual assessment of surficial conditions in readily accessible areas. It is possible that additional ACMs exist or may subsequently become known that may impact or change the assessment after NOVA's services are complete.

NOVA's assessment represents our professional opinion, only. Therefore, NOVA cannot, under any circumstances, make a statement of warranty or guarantee, expressed or implied, that ACMs are limited to those that are discovered while we were performing the survey.

2.4 USER RELIANCE

NOVA's Pre-Demolition Asbestos Containing Materials Survey, along with the findings and conclusions contained in the report, either in completed form, summary form, or by extraction, is prepared, and intended, for the sole use of the **Escambia County Engineering Department** (CLIENT), and therefore may not contain sufficient information for other purposes or parties. The CLIENT is the only intended beneficiary of this report. The contents of NOVA's report will continue to be the property of NOVA. NOVA's report may not be disclosed to, used by, or relied upon by, any person or entity other than the CLIENT without the express written consent of NOVA.

Authorization for disclosure to a third party or authorization for third-party reliance on a final report of any report will be considered by NOVA upon the written request of the CLIENT. NOVA reserves the right to deny authorization to allow disclosure or reliance of NOVA's report to third parties.

3.0 ASBESTOS CONTAINING MATERIALS

3.1 FIELD AND LABORATORY SERVICES

Mr. Stephen Shattuck, E.I., NOVA professional and federal and state certified asbestos inspector performed the field work for the Pre-Demolition Asbestos Containing Materials Survey for the Subject Property on February 05, 2018.

3.1.1 ASBESTOS CONTAINING MATERIALS SAMPLING

The building areas were visually assessed by NOVA to identify suspect ACMs, which were then grouped into three categories according to their intended use:

- Surfacing Materials such as sprayed-on or troweled fireproofing, acoustical and decorative insulation, textured "popcorn" finishes, paint, stucco, etc.
- Thermal System Insulation (TSI), such as pipe, boiler and storage tank insulation, and insulation on ducts, pumps, heat exchangers, and other equipment.
- Miscellaneous Materials, such as floor and ceiling tiles, wallboard, asbestoscement board, siding and other building materials that did not fall into one of the previously mentioned categories.

Where applicable, materials with similar texture, color and general appearance were considered homogeneous for sampling purposes, including visually similar materials on different floors. NOVA's assessment also included touching representative samples to determine friability, a mechanical classification defined as whether a material can be crumbled, pulverized, or reduced to powder by hand pressure.

Bulk samples were subsequently obtained in general accordance with the AHERA (40 CFR 763.86, Sampling) and ASTM E2356-10 procedures. The samples were placed in appropriate containers, and the containers sealed and labeled with a unique identification number. The samples were subsequently transported (following routine industry practices and chain-of-custody procedures) to Arrowhead Laboratories, LLC for analysis.

The ACM samples were analyzed for asbestos using Polarized Light Microscopy (PLM) methods in accordance with EPA Method 600/R-93/116. Copies of the complete asbestos laboratory report and chain-of custody are included in Appendix C.

Using the results of the laboratory analysis and NOVA's visual assessment, the asbestos containing building materials can be further categorized into three groups:

- Friable ACM Any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix C, Subpart F, 40 CFR part 763 Section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I Nonfriable ACM Asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent (1%) asbestos as determined using the method specified in Appendix C, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy.
- Category II Nonfriable ACM Any material, excluding Category I Nonfriable ACM, containing more than one percent (1%) asbestos as determined using the methods specified in Appendix C, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

A complete list of suspected ACM samples obtained is shown in the laboratory report (included in Appendix C).

3.2 ASBESTOS

During this study, twenty-seven (27) samples of building materials including flooring materials, wall texture, sealant materials, and roofing material were collected by NOVA and evaluated using Polarized Light Microscopy (PLM), with zero (0) of the analyzed homogeneous sample layers indicating asbestos containing materials (ACM).

3.3 ASBESTOS ABATEMENT

Due to the negative sample results, abatement is not necessary in the area surveyed.

APPENDIX A Figures and Maps



Scale: Not To Scale

Date Drawn: February 12, 2018

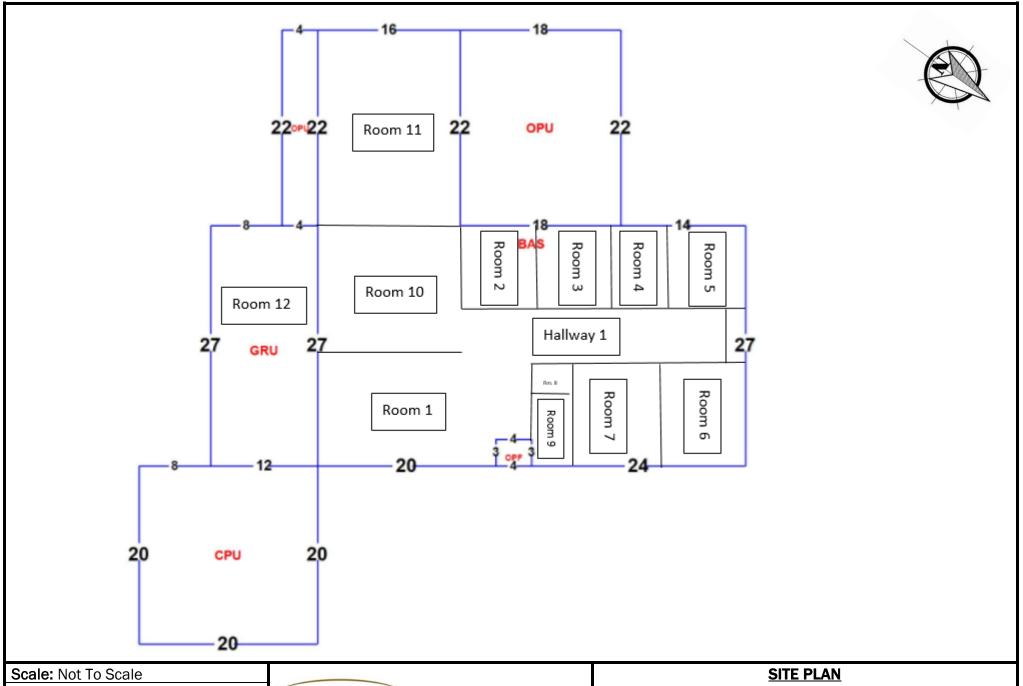
Drawn By: S. Shattuck
Checked By: L. Schmaltz



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

PROJECT LOCATION MAP

5533 Sun Valley Drive ACM Survey Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002

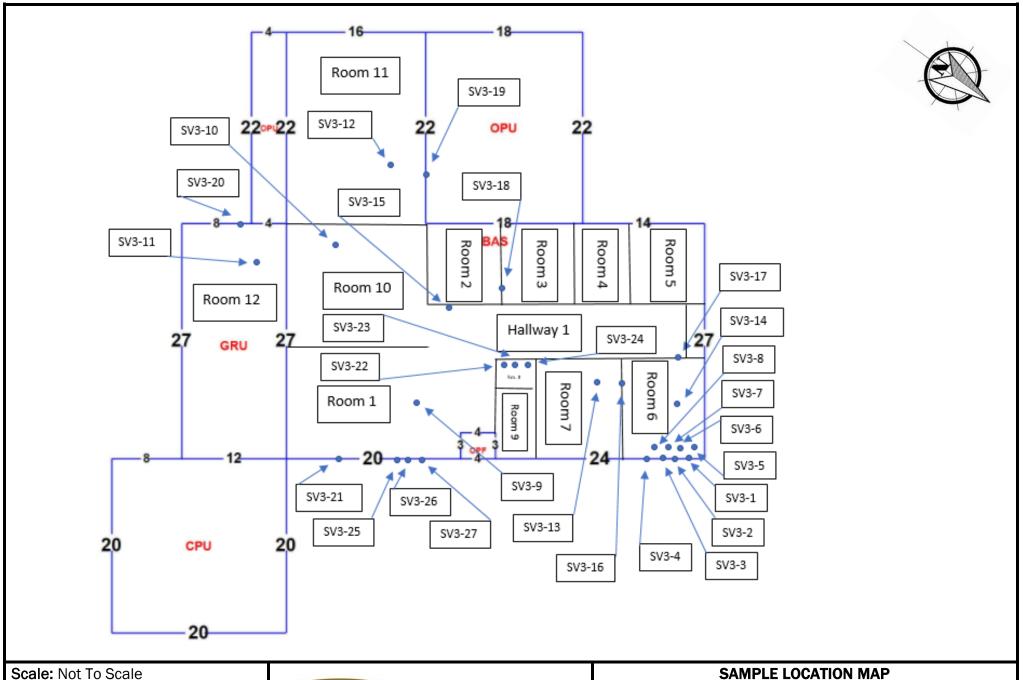


Date Drawn: February 12, 2018 Drawn By: S. Shattuck Checked By: L. Schmaltz



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5533 Sun Valley Drive ACM Survey Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002



Date Drawn: February 12, 2018

Drawn By: S. Shattuck

Checked By: L. Schmaltz



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

5533 Sun Valley Drive ACM Survey
Pensacola, Escambia County, Florida
NOVA Project Number 10116-8318002

APPENDIX B Site Photographs



1. View looking at front of the Subject Property



2. View looking at Hallway 1



3. View looking at Room 1



4. Representative view of drywall ceiling with spray texture (SV3-9 - SV3-14)





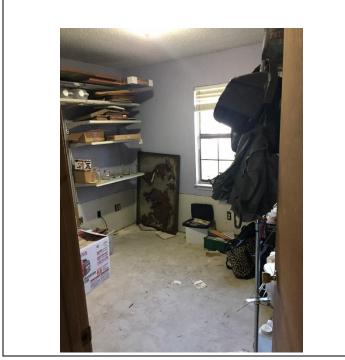
5. View of HVAC unit/ HVAC Mastic (SV3-22 - SV3-24)



6. Alternative view of HVAC unit/ HVAC Mastic (SV3-22 - SV3-24)



7. View looking in Room 7

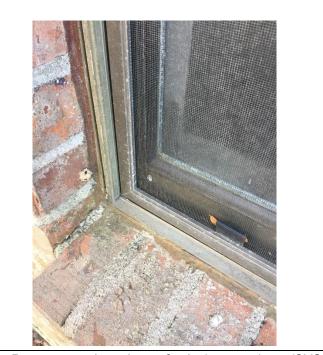


8. View looking in Room 6





9. View looking in Room 12



10. Representative view of window sealant (SV3-25 - SV3-27)



APPENDIX C Laboratory Data

AB 5608



ARROWHEAD

Technologies LLC

BULK SAMPLE /CHAIN OF CUSTODY FORM

SEND SAMPLES TO: 3151 San Bernadino St. Clearwater, FL 33759 813-679-0720 mhall005@tampabay.rr.com

Customer (Consultant)	Nova Engineering and Environmental	Page	1of2
Project/Address	Five SFR Asbestos Surveys 5533 Sun Valley Drive Pensacola, FL. 32505	Date Sampled	02/05/2018
Project Number	10116-8318002	Surveyor	Stephen Shattuck
Purchase Order		Surveyor Signature	W M 02/06/11
Project Manager/Contact (please give phone)	Stephen Shattuck	Your e-mail (for Report)	sshattuck@usanova.com
Analysis Instructions	PLM – First positive stop	Turnaround Requested / Due By Date	02/12/2018
Received at Lab by:	Monto Vall	Date	210/2018

* H.A.	No.	DESCRIPTION of Material	SAMPLE LOCATION	QUANTITY (Comments)
1	SV3-1	Roofing Shingle	Roof	1648 SF
1	SV3-2	Roofing Shingle	Roof	1648 SF
1	SV3-3	Roofing Shingle	Roof	1648 SF
1.	SV3-4	Roofing Shingle	Roof	1648 SF
2	SV3-5	Roofing Felt	Roof	1648 SF
2	SV3-6	Roofing Felt	Roof	1648 SF
2	SV3-7	Roofing Felt	Roof	1648 SF
2	SV3-8	Roofing Felt	Roof	1648 SF
3	SV3-9	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	Room 1	1972 SF
3	SV3-10	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	Room 10	1972 SF



ARROWHEAD Technologies LLC BULK SAMPLE /CHAIN OF CUSTODY FORM - continuation

Project/Address/ 5533 Sun Valley Drive Date Sampled 02/05/2018
Project Number Pensacola, FL. 32505
10116-8318002

Orywall Ceiling w/ Spray Texture (Popcorn Ceiling) Orywall Partition Walls Drywall Partition Walls	Room 12 Room 11 Room 7 Room 6 Hallway 1 Room 7 Room 6 Room 2	1972 SF 1972 SF 1972 SF 1972 SF 3900 SF 3900 SF 3900 SF
(Popcorn Ceiling) Orywall Ceiling w/ Spray Texture (Popcorn Ceiling) Orywall Ceiling w/ Spray Texture (Popcorn Ceiling) Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls	Room 7 Room 6 Hallway 1 Room 7 Room 6	1972 SF 1972 SF 3900 SF 3900 SF
(Popcorn Ceiling) Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls	Room 6 Hallway 1 Room 7 Room 6	1972 SF 3900 SF 3900 SF
(Popcorn Ceiling) Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls	Hallway 1 Room 7 Room 6	3900 SF 3900 SF 3900 SF
Drywall Partition Walls Drywall Partition Walls Drywall Partition Walls	Room 7 Room 6	3900 SF 3900 SF
Drywall Partition Walls Drywall Partition Walls	Room 6	3900 SF
Drywall Partition Walls		
	Room 2	3000 SE
Drywall Partition Walls		3900 SI
217 2	Room 11	3900 SF
Drywall Partition Walls	Room 12	3900 SF
Drywall Partition Walls	Room1	3900 SF
HVAC Mastic	Room 8	10 SF
HVAC Mastic	Room 8	10 SF
HVAC Mastic	Room 8	10 SF
Window Sealant	Building Exterior	20 LF
Window Sealant	Building Exterior	20 LF
Window Sealant	Building Exterior	20 LF
		,
	HVAC Mastic Window Sealant Window Sealant	HVAC Mastic Room 8 Window Sealant Building Exterior Window Sealant Building Exterior



3151 San Bernadino St. Clearwater, Florida 33759 813-679-0720 / mhall005@tampabay.rr.com

NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005608

 Project :
 5533 Sun Valley Drive
 AT Job No. :
 18-5608

 Client Project No.:
 10116-8318002
 Report Date :
 2/12/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 1 of 4

On 2/9/2018, twenty-seven (27) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005608-001	Roofing Shingle HA1-SV3-1	None Detected-Roofing Shingle
005608-002	Roofing Shingle HA1-SV3-2	None Detected-Roofing Shingle
005608-003	Roofing Shingle HA1-SV3-3	None Detected-Roofing Shingle
005608-004	Roofing Shingle HA1-SV3-4	None Detected-Roofing Shingle
005608-005	Roofing Felt HA2-SV3-5	None Detected-Roofing Felt
005608-006	Roofing Felt HA2-SV3-6	None Detected-Roofing Felt
005608-007	Roofing Felt HA2-SV3-7	None Detected-Roofing Felt
005608-008	Roofing Felt HA2-SV3-8	None Detected-Roofing Felt
005608-009	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-9	None Detected-Popcorn Ceiling Treat.
005608-010	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-10	None Detected-Popcorn Ceiling Treat.
005608-011	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-11	None Detected-Popcorn Ceiling Treat.
005608-012	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-12	None Detected-Popcorn Ceiling Treat.



3151 San Bernadino St. Clearwater, Florida 33759 813-679-0720 / mhall005@tampahay r

813-679-0720 / mhall005@tampabay.rr.com NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005608

Project: 5533 Sun Valley Drive AT Job No.: 18-5608

Client Project No.: 10116-8318002 Report Date: 2/12/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 2 of 4

On 2/9/2018, twenty-seven (27) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005608-013	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-13	None Detected-Popcorn Ceiling Treat.
005608-014	Drywall Ceilingw/Spray Texture(Popcorn Ceiling)HA3-SV3-14	None Detected-Popcorn Ceiling Treat.
005608-015	Drywall Partition Walls HA4-SV3-15	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-016	Drywall Partition Walls HA4-SV3-16	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-017	Drywall Partition Walls HA4-SV3-17	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-018	Drywall Partition Walls HA4-SV3-18	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-019	Drywall Partition Walls HA4-SV3-19	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material



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813-679-0720 / mhall005@tampabay.rr.com NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005608

Project: 5533 Sun Valley Drive AT Job No.: 18-5608

Client Project No.: 10116-8318002 Report Date : 2/12/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 3 of 4

On 2/9/2018, twenty-seven (27) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005608-020	Drywall Partition Walls HA4-SV3-20	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-021	Drywall Partition Walls HA4-SV3-21	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material
005608-022	HVAC Mastic HA5-SV3-22	None Detected-Gray Mastic
005608-023	HVAC Mastic HA5-SV3-23	None Detected-Gray Mastic
005608-024	HVAC Mastic HA5-SV3-24	None Detected-Gray Mastic
005608-025	Window Sealant HA6-SV3-25	None Detected-Brown Window Sealant
005608-026	Window Sealant HA6-SV3-26	None Detected-Brown Window Sealant
005608-027	Window Sealant HA6-SV3-27	None Detected-Brown Window Sealant



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813-679-0720 / mhall005@tampabay.rr.com NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005608

Project: 5533 Sun Valley Drive AT Job No.: 18-5608

Client Project No.: 10116-8318002 Report Date : 2/12/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 4 of 4

SCOPE OF THIS REPORT

These samples were obtained as a part of a building survey; this report is only intended to be used as a part of the survey report issued by the surveyor. This report explains the laboratory analysis and results. The surveyor's report explains the sampling protocol used, when the samples were obtained, the location(s) of the samples, where the materials were observed in the building, quantities of materials observed, condition of the materials and the extent of his/her survey. Sample locations and material descriptions are given by the surveyor on the chain of custody but included here (possibly abbreviated) only as a convenience for the reader.

This report may not be reproduced without written permission of Arrowhead and must be reproduced in full.

STATEMENT OF LABORATORY ACCREDITATION

The samples were analyzed in general accordance with the procedures outlined in the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, and the Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA 600/M4-82-020. The results of each bulk sample relate only to the material tested and the results shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Floor tile and other resinously bound materials, when analyzed by the EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, Arrowhead recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Specific questions concerning bulk sample results shall be directed to the Laboratory Director.

Analyst: Monte Hall, P.G.

Laboratory Director: Monte Hall, P.G.

Florida Registration No. 1658

Monte Hall

Approved Signatory:

APPENDIX D Qualifications of Recommendations



QUALIFICATIONS OF RECOMMENDATIONS

The findings, conclusions and recommendations presented in this report represent our professional opinions concerning the environmental conditions at the site. The opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at later dates or at locations not investigated. The opinions included herein are based on information provided to us, the data obtained at the specific time of the investigation, and our experience with similar sites.

Should conditions or events change, NOVA should be retained to evaluate those changes and their impact to the subject site.

This report is intended for the sole use of **Escambia County Engineering Department** only. The scope of work performed for this study was prepared for **Escambia County Engineering Department** based on the applicable ASTM standard. Use of this report or the findings, conclusions and recommendations by others will be at the sole risk of the user. NOVA is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations or opinions.

Our professional services have been performed, our findings obtained, our conclusions derived and our recommendations prepared in accordance with generally accepted environmental assessment principles and practices in the industry.

ASBESTOS CONTAINING MATERIALS SURVEY



ESCAMBIA COUNTY PROPERTIES Single-Family Residence 5535 Sun Valley Drive

Pensacola, Escambia County, Florida

PREPARED FOR:

Ms. Mariana Correa, Project Coordinator Escambia County Engineering Department 3363 West Park Place Pensacola, Florida 32505

NOVA Project Number: 10116-8318002

February 16, 2018





February 16, 2018

ESCAMBIA COUNTY ENGINEERING DEPARTMENT 3363 West Park Place Pensacola, Florida 32505

Attention: Ms. Mariana Correa, Project Coordinator

Subject: Pre-Demolition Asbestos Containing Materials Survey Report

ESCAMBIA COUNTY PROPERTIES5535 SUN VALLEY DRIVE

Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002

Dear Ms. Correa:

NOVA Engineering and Environmental LLC (NOVA) has completed the National Emissions Standards for Hazardous Air Pollutants (NESHAPs) Pre-Demolition Asbestos Containing Materials (ACMs) Survey for the residence located at 5535 Sun Valley Drive in Pensacola, Escambia County, Florida (Subject Property). We appreciate your selection of NOVA and for the opportunity to be of service on this project. Please feel free to contact us if you have any questions or if we may be of further assistance.

Sincerely,

NOVA Engineering and Environmental LLC

Asbestos Business License #ZA 308

Stephen A. Shattuck, E.I. Accredited Asbestos Inspector

Sheila E. Schneider
Accredited Asbestos Inspector

Larry G. Schmaltz, P.E., G.C.

Florida Licensed Asbestos Consultant

(#AX009)

Copies Submitted: Addressee (electronic)

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3.2	ASBESTOS	. 6
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LIST OF APPENDICES

APPENDIX A - Figures and Maps

APPENDIX B - Site Photographs

APPENDIX C - Laboratory Data

APPENDIX D - Qualifications of Recommendations

1.0 SUMMARY

A brief summary of our findings is presented below. This summary is provided for convenience and should not be substituted for review of the full report, including all attachments as provided herein.

1.1 ASBESTOS

During this study, twenty-five (25) samples of building materials including flooring materials, wall texture, sealant materials, pipe material, and roofing material were collected by NOVA and evaluated using Polarized Light Microscopy (PLM), with one (1) of the analyzed homogeneous sample layers indicating asbestos containing materials (ACM).

Following is a table containing a summary of samples that were collected during the survey:

HSA	Sample Number	Material Type & Location	PLM Analysis	Estimated Quantity	*EPA Cat.
1	SV5 (1-3)	Roofing Shingle	ND	988 Square Feet	-
2	SV5 (4-6)	Roofing Felt	ND	988 Square Feet	-
3	SV5 (7-9)	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	2% Chr. (4.25% Chr. By Point Count)	375 Square Feet	F
4	SV5 (10-12)	Drywall Ceiling	ND	525 Square Feet	-
5	SV5 (13-15)	Drywall Partition Walls	ND	1880 Square Feet	-
6	SV5 (16-18)	Window Sealant	ND	4 Linear Feet	-
7	SV5 (19-21)	Pipe Insulation	ND	1 Linear Foot	-
8	SV5 (22)	Vinyl Flooring	ND	728 Square Feet	-
8	SV5 (23)	Vinyl Flooring	ND	72 Square Feet	-
9	SV5 (24-25)	Flooring Mastic	ND	20 Linear Feet	-

Note: Neither NOVA nor the client will be held responsible for anyone's use of the estimated quantity. It is suggested that anyone responsible for the project prepare their own quantity estimates.

TABLE LEGEND:

HSA: Homogenous Sampling Area QUANTITY ESTIMATE: Estimated Quantity of HSA

PLM ANALYSIS: Chr. = Chrysotile Asbestos EPA CATEGORY: F = Friable

Ams. = Amosite Asbestos NF-I = Category I Non-Friable ND = No Asbestos Detected NF-II = Category II Non-Friable NF-II = Category II Non-Friable NF-II = Category II Non-Friable

N/A = Not Applicable

The entire building was surveyed at the request of the Client. This was a one-story single-family residence.

Polarized Light Microscopy (PLM) is commonly used for bulk asbestos identification, but it can identify non-asbestos fibers as asbestos. In an effort to eliminate false positives (and costly unnecessary abatement), samples reported as containing

between 1% and 10% asbestos can be analyzed/verified by point count. The alternative is to assume the subject material to be asbestos containing. The Occupational Safety and Health Administration (OSHA) Asbestos Standard for Construction Industry 29 CFR 1926.1101 regulates workplace exposure to asbestos. OSHA does not define Asbestos Containing Material on asbestos content. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities, which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. In addition to worker protection, the means and methods necessary for ACM abatement are the sole responsibility of the abatement contractor.

A complete list of suspected ACM samples obtained is also shown in the laboratory report (included in Appendix C).

2.0 INTRODUCTION

2.1 DESCRIPTION OF SUBJECT PROPERTY

The Subject Property is a single-family residence which is located at 5535 Sun Valley Drive, Pensacola, Escambia County, Florida. The building is a 1012 square foot, one-story, slab on grade, wood-frame structure built in 1971. Per the Escambia County Property Appraiser, this property is identified as parcel number 441S302002003011.

2.2 PURPOSE

As requested by Ms. Mariana Correa from the Escambia County Engineering Department (CLIENT), the Pre-Demolition Asbestos Containing Materials (ACMs) Survey was performed in an effort to identify ACMs at the Subject Property. This work has been performed in general accordance with NOVA Proposal Number 016-30183022 for Professional Services dated January 12, 2018, applicable state and federal regulations, and routine industry practice.

ACM sampling was performed in general accordance with the Asbestos Hazard Emergency Response Act (AHERA) guidelines and ASTM E2356-14," Standard Practice for Comprehensive Building Asbestos Survey" as a Baseline Survey.

2.3 LIMITATIONS

NOVA has performed the Pre-Demolition Asbestos Containing Materials Survey, which is a <u>limited</u> inquiry into a property's environmental status, with respect to asbestos containing materials, and is not sufficient to discover every potential source of ACMs at the property to be evaluated. No survey can wholly eliminate uncertainty regarding the potential ACMs in connection with a property. Performance of this practice is intended to reduce, but not eliminate, uncertainty regarding the potential for ACMs in connection with a property. The level of inquiry is variable. Not every property will warrant the same level of assessment for ACMs. Consistent with good commercial or customary practices, the appropriate level of assessment is guided by the type of property subject to assessment, the intended use of the property, the expertise and risk tolerance of the CLIENT, and the information developed over the course of the assessment.

NOVA's findings, opinions, conclusions and recommendations are based on information obtained through visual assessment of surficial conditions in readily accessible areas. It is possible that additional ACMs exist or may subsequently become known that may impact or change the assessment after NOVA's services are complete.

February 16, 2018 NOVA Project Number 10116-8318002

NOVA's assessment represents our professional opinion, only. Therefore, NOVA cannot, under any circumstances, make a statement of warranty or guarantee, expressed or implied, that ACMs are limited to those that are discovered while we were performing the survey.

2.4 USER RELIANCE

NOVA's Pre-Demolition Asbestos Containing Materials Survey, along with the findings and conclusions contained in the report, either in completed form, summary form, or by extraction, is prepared, and intended, for the sole use of the CLIENT, and therefore may not contain sufficient information for other purposes or parties. The CLIENT is the only intended beneficiary of this report. The contents of NOVA's report will continue to be the property of NOVA. NOVA's report may not be disclosed to, used by, or relied upon by, any person or entity other than the CLIENT without the express written consent of NOVA.

Authorization for disclosure to a third party or authorization for third-party reliance on a final report of any report will be considered by NOVA upon the written request of the CLIENT. NOVA reserves the right to deny authorization to allow disclosure or reliance of NOVA's report to third parties.

3.0 ASBESTOS CONTAINING MATERIALS

3.1 FIELD AND LABORATORY SERVICES

Mr. Stephen Shattuck, E.I., NOVA professional and federal and state certified asbestos inspector performed the field work for the Pre-Demolition Asbestos Containing Materials Survey for the Subject Property on February 05, 2018.

3.1.1 ASBESTOS CONTAINING MATERIALS SAMPLING

The building areas were visually assessed by NOVA to identify suspect ACMs, which were then grouped into three categories according to their intended use:

- Surfacing Materials such as sprayed-on or troweled fireproofing, acoustical and decorative insulation, textured "popcorn" finishes, paint, stucco, etc.
- Thermal System Insulation (TSI), such as pipe, boiler and storage tank insulation, and insulation on ducts, pumps, heat exchangers, and other equipment.
- Miscellaneous Materials, such as floor and ceiling tiles, wallboard, asbestoscement board, siding and other building materials that did not fall into one of the previously mentioned categories.

Where applicable, materials with similar texture, color and general appearance were considered homogeneous for sampling purposes, including visually similar materials on different floors. NOVA's assessment also included touching representative samples to determine friability, a mechanical classification defined as whether a material can be crumbled, pulverized, or reduced to powder by hand pressure.

Bulk samples were subsequently obtained in general accordance with the AHERA (40 CFR 763.86, Sampling) and ASTM E2356-10 procedures. The samples were placed in appropriate containers, and the containers sealed and labeled with a unique identification number. The samples were subsequently transported (following routine industry practices and chain-of-custody procedures) to Arrowhead Laboratories, LLC for analysis.

The ACM samples were analyzed for asbestos using Polarized Light Microscopy (PLM) methods in accordance with EPA Method 600/R-93/116. Copies of the complete asbestos laboratory report and chain-of custody are included in Appendix C.

Using the results of the laboratory analysis and NOVA's visual assessment, the asbestos containing building materials can be further categorized into three groups:

- Friable ACM Any material containing more than one percent (1%) asbestos as determined using the method specified in Appendix C, Subpart F, 40 CFR part 763 Section 1, Polarized Light Microscopy, that, when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.
- Category I Nonfriable ACM Asbestos-containing packing, gaskets, resilient floor covering, and asphalt roofing products containing more than one percent (1%) asbestos as determined using the method specified in Appendix C, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy.
- Category II Nonfriable ACM Any material, excluding Category I Nonfriable ACM, containing more than one percent (1%) asbestos as determined using the methods specified in Appendix C, Subpart F, 40 CFR part 763, Section 1, Polarized Light Microscopy that, when dry, cannot be crumbled, pulverized, or reduced to powder by hand pressure.

A complete list of suspected ACM samples obtained is shown in the laboratory report (included in Appendix C).

3.2 ASBESTOS

During this study, twenty-five (25) samples of building materials including flooring materials, wall texture, sealant materials, pipe material, and roofing material were collected by NOVA and evaluated using Polarized Light Microscopy (PLM), with one (1) of the analyzed homogeneous sample layers indicating asbestos containing materials (ACM). The drywall ceiling with spray texture (popcorn ceiling) was found to be positive for asbestos. If this material becomes damaged or is otherwise compromised, or if it is subject to impact from renovation or demolition activities the material must be removed by a Florida Licensed Asbestos Contractor.

3.3 ASBESTOS ABATEMENT

Any component, which is similar in appearance to, and is in the general vicinity or similar application of samples identified as containing asbestos, as well as any other materials not shown by proper sampling and analysis to be non-asbestos containing, should be handled as asbestos-containing material (ACM). As previously noted, determination of the actual quantities of ACMs at all locations should be made by the contractor during a site inspection prior to beginning abatement.

ACMs must be abated (removed) prior to disturbance by maintenance, renovation and/or demolition by a licensed asbestos abatement contractor and disposed at an approved solid waste disposal facility.

Abatement is highly regulated and consists of several parts. In addition to the demolition/renovation permit, a ten (10) day advance notification to the Florida Department of Environmental Protection (FDEP) is required.

During abatement, third party monitoring is recommended to review if the asbestos is adequately managed and contained during the abatement process and to document clearance and re-occupancy criteria established for the project.

Most Clients also request an abatement management report. This report compiles pertinent data regarding the personnel, abatement, and asbestos disposal for liability management after the fact should there be concerns later from workers or others. The ten (10) day notice, abatement, third party oversight, and management report are not included with the authorized scope of work for this project, but we can provide these supplemental services, if desired.

Materials having results of analysis of less than 1% asbestos are considered to be non-asbestos containing materials and do not have to be treated as asbestos in the work place. However, if disturbed by renovation or demolition, prudent care should be observed regarding worker exposure to materials containing asbestos even if less than 1%.

The Occupational Safety and Health Administration (OSHA) Asbestos Standard for Construction Industry 29 CFR 1926.1101 regulates workplace exposure to asbestos. OSHA does not define Asbestos Containing Material on asbestos content. Any detectable asbestos, even if <1%, makes it asbestos for purposes of complying with OSHA regulations to determine worker exposure. The OSHA standard requires that employee exposure to airborne asbestos fibers be maintained below 0.1 asbestos fibers per cubic centimeter of air (0.1 f/cc). The OSHA standard classifies construction and maintenance activities, which could disturb ACM, and specifies work practices and precautions which employers must follow when engaging in each class of regulated work. In addition to worker protection, the mean and methods necessary for ACM abatement are the sole responsibility of the abatement contractor.

Please note that the means and methods necessary for ACM abatement, as well as worker protection and monitoring, are the sole responsibility of the abatement contractor.

APPENDIX A Figures and Maps



Scale: Not To Scale

Date Drawn: February 12, 2018

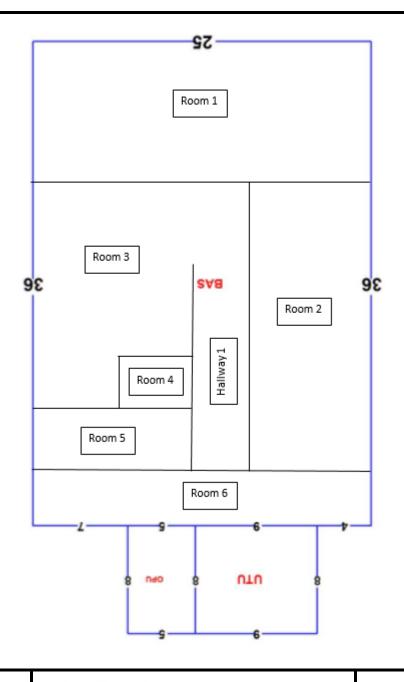
Drawn By: S. Shattuck
Checked By: L. Schmaltz



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

PROJECT LOCATION MAP

5535 Sun Valley Drive ACM Survey Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002





Scale: Not To Scale

Date Drawn: February 12, 2018

Drawn By: S. Shattuck

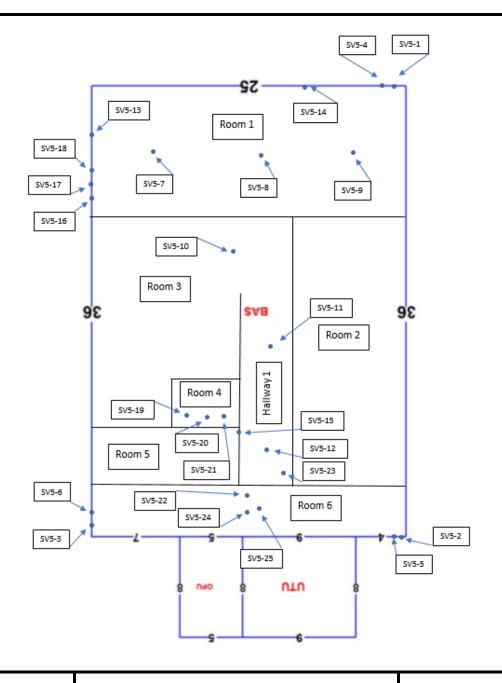
Checked By: L. Schmaltz



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

SITE PLAN

5535 Sun Valley Drive ACM Survey Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002





Scale: Not To Scale

Date Drawn: February 12, 2018

Drawn By: S. Shattuck

Checked By: L. Schmaltz



140-A Lurton Street
Pensacola, Florida 32505
850.607.7782 ♦ 850.249.6683

SAMPLE LOCATION MAP

5535 Sun Valley Drive ACM Survey Pensacola, Escambia County, Florida NOVA Project Number 10116-8318002

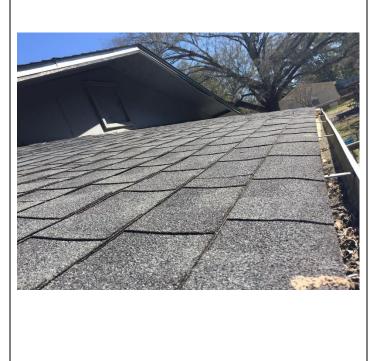
APPENDIX B Site Photographs



1. View looking at front of the Subject Property



2. Representative view of window sealant material (SV5-16 – SV5-18)



3. Representative view of roofing shingle material (SV5-1 – SV5-3)

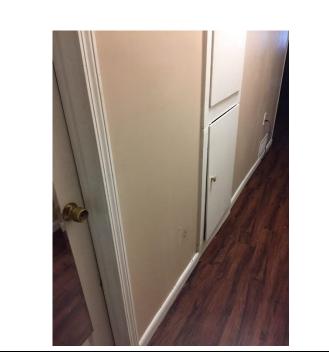


4. Representative view of vinyl flooring material (SV5-23)

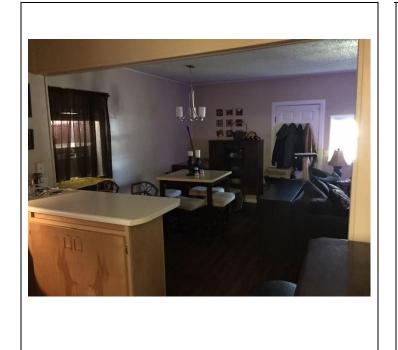




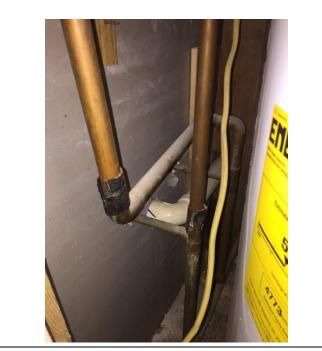
5. View looking down hallway 1



6. Representative view of drywall partition walls material (SV5-13 – SV5-15)



7. View looking at room 1 (Including ACM positive 2% drywall ceiling w/ spray texture)



8. Representative view of pipe insulation material (SV5-19 – SV5-21)



APPENDIX C Laboratory Data



ARROWHEAD

Technologies LLC
www.arrowheadplm.com

BULK SAMPLE /CHAIN OF CUSTODY FORM

SEND SAMPLES TO: 3151 San Bernadino St. Clearwater, FL 33759 813-679-0720 mhall005@tampabay.rr.com

Customer (Consultant)	Nova Engineering and Environmental	Page	1 of2
Project/Address	Five SFR Asbestos Surveys 5535 Sun Valley Drive Pensacola, FL. 32505	Date Sampled	02/05/2018
Project Number	10116-8318002	Surveyor	Stephen Shattuck
Purchase Order		Surveyor Signature	St 18 03/06/11
Project Manager/Contact (please give phone)	Stephen Shattuck	Your e-mail (for Report)	sshattuck@usanova.com
Analysis Instructions	PLM – First positive stop	Turnaround Requested / Due By Date	02/12/2018
Received at Lab by:	611-1-1611	Date	2/9/18

No.	DESCRIPTION of Material	SAMPLE LOCATION	QUANTITY (Comments)
SV5-1	Roofing Shingle	Roof	988 SF
SV5-2	Roofing Shingle	Roof	988 SF
SV5-3	Roofing Shingle	Roof	988 SF
SV5-4	Roofing Felt	Roof	988 SF
SV5-5	Roofing Felt	Roof	988 SF
SV5-6	Roofing Felt	Roof	988 SF
SV5-7	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	Room 1	375 SF
SV5-8	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	Room 1	375 SF
SV5-9	Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	Room 1	375 SF
SV5-10	Drywall Ceiling	Room 3	525 SF
	SV5-1 SV5-2 SV5-3 SV5-4 SV5-5 SV5-6 SV5-7 SV5-8 SV5-9	SV5-1 Roofing Shingle SV5-2 Roofing Shingle SV5-3 Roofing Shingle SV5-4 Roofing Felt SV5-5 Roofing Felt SV5-6 Roofing Felt SV5-7 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) SV5-8 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) SV5-9 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)	SV5-1 Roofing Shingle Roof SV5-2 Roofing Shingle Roof SV5-3 Roofing Shingle Roof SV5-4 Roofing Felt Roof SV5-5 Roofing Felt Roof SV5-6 Roofing Felt Roof SV5-7 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) SV5-8 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) SV5-9 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling) SV5-9 Drywall Ceiling w/ Spray Texture (Popcorn Ceiling)

LAB 5611



ARROWHEAD Technologies LLC BULK SAMPLE /CHAIN OF CUSTODY FORM - continuation

Project/Address/ Project Number	Five SFR Asbestos Surveys 5535 Sun Valley Drive Pensacola, FL. 32505 10116-8318002	Date Sampled	02/05/2018
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		10110 0010002		
H.A.	No.	DESCRIPTION of Material	SAMPLE LOCATION	QUANTITY (Comments
4	SV5-11	Drywall Ceiling	Hallway 1	525 SF
4	SV5-12	Drywall Ceiling	Hallway 1	525 SF
5	SV5-13	Drywall Partition Walls	Room 1	1880 SF
5 .	SV5-14	Drywall Partition Walls	Room 1	1880 SF
5	SV5-15	Drywall Partition Walls	Hallway 1	1880 SF
6	SV5-16	Window Sealant	Building Exterior	4 LF
- 6	SV5-17	Window Sealant	Building Exterior	4 LF
6	SV5-18	Window Sealant	Building Exterior	4 LF
.7	SV5-19	Pipe Insulation	Room 4	1 LF
7	SV5-20	Pipe Insulation	Room 4	1 LF
7	SV5-21	Pipe Insulation	Room 4	1 LF
8	SV5-22	Vinyl Flooring	Room 6	728 SF
8	SV5-23	Vinyl Flooring	Room 6	72 SF
9	SV5-24	Flooring Mastic	Room 6	72 SF
9	SV5-25	Flooring Mastic	Room 6	72 SF
		*		
		-		



3151 San Bernadino St. Clearwater, Florida 33759 813-679-0720 / mhall005@tampabay.rr.com

NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005611

Project: 5535 Sun Valley Drive AT Job No.: 18-5611

Client Project No.: 10116-8318002 Report Date: 2/15/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 1 of 4

On 2/9/2018, twenty-five (25) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005611-001	Roofing Sample HA1-SV5-1	None Detected-Roofing Shingle
005611-002	Roofing Sample HA1-SV5-2	None Detected-Roofing Shingle
005611-003	Roofing Sample HA1-SV5-3	None Detected-Roofing Shingle
005611-004	Roofing Felt HA2-SV5-4	None Detected-Roofing Felt
005611-005	Roofing Felt HA2-SV5-5	None Detected-Roofing Felt
005611-006	Roofing Felt HA2-SV5-6	None Detected-Roofing Felt
005611-007	Drywall Ceiling w/SprayTexture(Popcorn Ceiling) HA3-SV9-7	2% Chrysotile-Popcorn Ceiling 4.25% Chrysotile-Popcorn Ceiling (By Point Count)
005611-008	Drywall Ceiling w/SprayTexture(Popcorn Ceiling) HA3-SV9-8	Not Analyzed
005611-009	Drywall Ceiling w/SprayTexture(Popcorn Ceiling) HA3-SV9-9	Not Analyzed
005611-010	Drywall Ceiling HA4-SV5-10	None Detected-Joint Compound w/ Pt. None Detected-DW Paper Backing None Detected-Drywall Material



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Client Project No.: 10116-8318002 Report Date : 2/15/2018

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Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 2 of 4

On 2/9/2018, twenty-five (25) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005611-011	Drywall Ceiling HA4-SV5-11	None Detected-Texture w/ Paint None Detected-DW Paper Backing None Detected-Drywall Material
005611-012	Drywall Ceiling HA4-SV5-12	None Detected-Texture w/ Paint None Detected-DW Paper Backing None Detected-Drywall Material
005611-013	Drywall Partitions HA5-SV5-13	None Detected-Texture w/ Paint None Detected-DW Paper Backing None Detected-Drywall Material
005611-014	Drywall Partitions HA5-SV5-14	None Detected-Texture w/ Paint None Detected-DW Paper Backing None Detected-Drywall Material
005611-015	Drywall Partitions HA5-SV5-15	None Detected-Texture w/ Paint None Detected-DW Paper Backing None Detected-Drywall Material
005611-016	Window Sealant HA6-SV5-16	None Detected-White Sealant
005611-017	Window Sealant HA6-SV5-17	None Detected-White Sealant



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NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005611

Project: 5535 Sun Valley Drive AT Job No.: 18-5611

Client Project No.: 10116-8318002 Report Date : 2/15/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 3 of 4

On 2/9/2018, twenty-five (25) bulk material samples were submitted by Stephen Shattuck for asbestos analysis by PLM/DS. Copies of Bulk Sample Analysis sheets are attached; additional information may be found therein. The results are summarized below:

Lab Sample No.	Sample Description / Location	Asbestos Content
005611-018	Window Sealant HA6-SV5-18	None Detected-White Sealant
005611-019	Pipe Insulation HA7-SV5-19	None Detected-Black Mastic
005611-020	Pipe Insulation HA7-SV5-20	None Detected-Black Mastic
005611-021	Pipe Insulation HA7-SV5-21	None Detected-Black Mastic
005611-022	Vinyl Flooring HA8-SV5-22	None Detected-Beige Floor Tile None Detected-Clear Adhesive
005611-023	Vinyl Flooring HA8-SV5-22	None Detected-Beige Floor Tile None Detected-Clear Adhesive
005611-024	Flooring Mastic HA9-SV5-24	None Detected-Tan Mastic w/ Debris
005611-025	Flooring Mastic HA9-SV5-25	None Detected-Tan Mastic w/ Debris



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813-679-0720 / mhall005@tampabay.rr.com NVLAP Lab Code 200703-0

Client: Nova Lab Set No.: 005611

Project: 5535 Sun Valley Drive AT Job No.: 18-5611

Client Project No.: 10116-8318002 Report Date: 2/15/2018

Identification: Asbestos, Bulk Sample Analysis Sample Date: 2/5/2018

Test Method: Polarized Light Microscopy / Dispersion Staining (PLM/DS)

EPA Method 600/R-93/116 / EPA Method 600/M4-82-020 Page 4 of 4

SCOPE OF THIS REPORT

These samples were obtained as a part of a building survey; this report is only intended to be used as a part of the survey report issued by the surveyor. This report explains the laboratory analysis and results. The surveyor's report explains the sampling protocol used, when the samples were obtained, the location(s) of the samples, where the materials were observed in the building, quantities of materials observed, condition of the materials and the extent of his/her survey. Sample locations and material descriptions are given by the surveyor on the chain of custody but included here (possibly abbreviated) only as a convenience for the reader.

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STATEMENT OF LABORATORY ACCREDITATION

The samples were analyzed in general accordance with the procedures outlined in the Method for the Determination of Asbestos in Bulk Building Materials, EPA/600/R-93/116, and the Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA 600/M4-82-020. The results of each bulk sample relate only to the material tested and the results shall not be used to claim product endorsement by NVLAP or any agency of the U.S. Government.

Floor tile and other resinously bound materials, when analyzed by the EPA method, may yield false negative results because of limitations in separating closely bound fibers and in detecting fibers of small length and diameter. When a definitive result is required, Arrowhead recommends utilizing alternative methods of identification, including Transmission Electron Microscopy.

Specific questions concerning bulk sample results shall be directed to the Laboratory Director.

Analyst: Monte Hall, P.G.

Laboratory Director: Monte Hall, P.G.

Florida Registration No. 1658

Monte Hall

Approved Signatory:

APPENDIX D Qualifications of Recommendations



QUALIFICATIONS OF RECOMMENDATIONS

The findings, conclusions and recommendations presented in this report represent our professional opinions concerning the environmental conditions at the site. The opinions presented are relative to the dates of our site work and should not be relied on to represent conditions at later dates or at locations not investigated. The opinions included herein are based on information provided to us, the data obtained at the specific time of the investigation, and our experience with similar sites.

Should conditions or events change, NOVA should be retained to evaluate those changes and their impact to the subject site.

This report is intended for the sole use of **Escambia County Engineering Department** only. The scope of work performed for this study was prepared for **Escambia County Engineering Department** based on the applicable ASTM standard. Use of this report or the findings, conclusions and recommendations by others will be at the sole risk of the user. NOVA is not responsible or liable for the interpretation by others of the data in this report, nor their conclusions, recommendations or opinions.

Our professional services have been performed, our findings obtained, our conclusions derived and our recommendations prepared in accordance with generally accepted environmental assessment principles and practices in the industry.