

Illinois Department of Transportation

Asbestos Abatement Survey

Work Order No.: 33

Job Order No.: R-91-016-20

Route: I-80

Parcel No.: 1P10127

603 Kiep Avenue

Joliet, Will County, Illinois 60436

August 30, 2024

Asbestos Abatement Survey

Work Order No.: 33
Job Order No.: R-91-016-20
Route: I-80
Parcel No.: 1P10127
603 Kiep Avenue
Joliet, Will County, Illinois 60436

August 30, 2024

Prepared By:

Arcadis U.S., Inc.
225 West Wacker Drive
Suite 2015
Chicago, Illinois 60606
Phone: 312 917 1000

Prepared For:

Illinois Department of Transportation
2300 South Dirksen Parkway
Springfield, IL 62764

Our Ref:

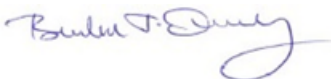
30227204



Anthony Spalla
Scientist / Asbestos Inspector



Katherine Challberg
Senior Environmental Engineer / QA/QC



Brendan J. Quealy
Principal Environmental Engineer/Certified Project Manager

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Acronyms and Abbreviations

ACM	asbestos-containing material
AHERA	Asbestos Hazard Emergency Response Act
Arcadis	Arcadis U.S., Inc.
ASTM	ASTM International
CFR	Code of Federal Regulations
COC	chain of custody
DS	dispersion staining
HA	homogeneous area
IAC	Illinois Administrative Code
IDPH	Illinois Department of Public Health
IDOT	Illinois Department of Transportation
IEPA	Illinois Environmental Protection Agency
NESHAP	National Emissions Standards for Hazardous Air Pollutant
NIOSH	National Institute for Occupational Safety and Health
NVLAP	National Voluntary Laboratory Accreditation Program
OSHA	Occupational Safety and Health Administration
PLM	polarized light microscopy
PPE	personal protective equipment
QA/QC	quality control/quality assurance
STAT	STAT Analysis Corporation of Chicago, Illinois
USEPA	United States Environmental Protection Agency

1 Introduction

Arcadis U.S., Inc. (Arcadis) conducted an asbestos abatement survey (survey) at Parcel No. 1P10127 located at 603 Kiep Avenue, Joliet, Will County, Illinois (Site) in accordance with Work Order No. 33 under the Prime Agreement for Consulting Services for PTB No. 202-043 between Illinois Department of Transportation (IDOT) and Arcadis. Arcadis' services and report are subject to the Limitations and Service Constraints provided in **Appendix A**.

The Site is improved with a two-story, residential building with a crawlspace, constructed in 1954, and covering approximately 2,320 square feet with a two-car detached garage.

The objective of the survey was to ascertain the general presence, quantity, and location of asbestos-containing materials (ACMs) at the site that may be impacted by the planned demolition and provide preliminary cost estimates for asbestos abatement that may be required prior to demolition activities.

The survey activities were conducted on June 26, 2024, by Anthony Spalla of Arcadis U.S., Inc. and Patrick Hook of A3 Environmental LLC. (A3E), an Arcadis sub-consultant. Copies of their accreditations are provided in **Appendix B**.

2 Survey Methodology

Arcadis conducted the asbestos survey in compliance with the United States Environmental Protection Agency (USEPA) National Emissions Standards for Hazardous Air Pollutants (NESHAPs), applicable State of Illinois and local asbestos regulations. This was accomplished by conducting a visual inspection of the structures to be impacted by the planned demolition and collecting samples of suspect ACM based on these observations. Arcadis conducted the asbestos survey in general accordance with ASTM International (ASTM) E2356 Standard Practice for Comprehensive Building Asbestos Surveys. ASTM E2356 meets the applicable asbestos survey and/or sampling requirements of current USEPA NESHAP Standard [40 Code of Federal Regulations (CFR) 61, Subpart M (Asbestos)], USEPA Asbestos Hazard Emergency Response Act (AHERA) [40 CFR 763, Subpart E], and Occupational Safety and Health Administration (OSHA) Asbestos Construction Standard [29 CFR 1926.1101].

The survey included an inspection of the structures to be impacted by the planned demolition providing a general sense of the overall location, type, quantity, and condition of suspect ACMs present. The asbestos survey included a visual and physical assessment of each accessible space to locate suspect ACMs. Suspect materials were divided into "Homogeneous Areas" (HAs) (i.e., materials that were determined by the inspector to be homogeneous based on their color, texture, and assumed date of installation).

A representative number of samples were collected from each HA. Bulk material samples were collected in 4-milliliter plastic bags, and tightly sealed for transport to STAT Analysis Corporation (STAT) in Chicago, Illinois. Each sample collected by Arcadis was assigned its own unique coded number and sent for laboratory analysis under a chain-of-custody (COC) protocol.

The survey included destructive, intrusive, and/or exploratory testing unless specifically prohibited by IDOT. Destructive sampling is performed in order to identify materials which are hidden or obstructed. Hidden or obstructed areas include but are not limited to wall cavities, pipe chases, spaces above fixed ceilings, materials located under carpeting or subfloors, and ceramic tile grout/adhesive.

3 Analytical Methods

Asbestos bulk samples were analyzed for asbestos (reported in percent of type of asbestos) using polarized light microscopy with dispersion staining (PLM/DS) in accordance with the USEPA Method 600/R-93/116. Percentage estimates of each material's composition are based on the analyst's best visual judgment following PLM/DS analysis, and examination with a stereoscope.

STAT is accredited under the National Voluntary Laboratory Accreditation Program (NVLAP). A copy of their accreditation is provided in **Appendix B**. Laboratory analytical reports are provided in **Appendix C**.

4 Findings

Arcadis identified 29 HAs from which 87 samples were collected and analyzed. A listing of the identified HAs, including each HA material description, location, sample number, condition, asbestos content, and estimated quantity, are presented in Table 1. Approximate sampling locations are shown on Figures 1-3.

The USEPA defines ACM as a material containing greater than 1% asbestos. Materials containing less than 1% asbestos are not regulated by the USEPA or the State of Illinois, but their disturbance is regulated by OSHA.

The bulk samples collected by Arcadis as part of the survey were reported by the laboratory to be ND = Asbestos Not Detected (Not Present).

No HAs were identified as assumed ACM.

Representative photographs are provided in **Appendix D**.

5 Recommendations

ACMs identified at the site that may be disturbed during demolition activities, must be removed by a licensed asbestos abatement contractor utilizing industry standard work procedures in accordance with all federal, state, and local regulations governing asbestos.

If other suspect materials not referenced in this survey report are identified during demolition activities, we recommend these materials be assumed ACM until the materials are inspected by a licensed asbestos inspector, sampled, and submitted for laboratory analysis.

7 Additional Survey Limitations

Arcadis' survey is subject to the following survey limitations.

- The investigation did not include access or inspection of confined spaces, underground piping, conduits, and building footings, if any.
- If other suspect materials, not referenced in this survey report, are identified during renovation or demolition activities, Arcadis recommends that these materials be considered regulated until they are inspected by an appropriately certified inspector and proven otherwise.
- Utilities/services, including electric, water, and heat, were active in most areas surveyed. Materials associated with electrical components and energized equipment were not safely accessible and were not sampled.

Table

HA No.	Material Description	Material Location	Sample Number	Condition	Friability	Asbestos Content	Estimated Quantity	Unit	Notes
1	Gypsumboard	Walls and Ceilings Throughout	1A, 1B, 1C	Good	Non-Friable	NAD	4,000	SF	
2	Joint Compound associated with HA-1	Walls and Ceilings Throughout	2A, 2B, 2C	Good	Friable	NAD	4,000	SF	
3	Tape associated with HA-1	Walls and Ceilings Throughout	3A, 3B, 3C	Good	Non-Friable	NAD	4,000	SF	
4	White 1' x 3' Ceramic Wall Tile	Bathroom 1	4A, 4B, 4C	Good	Non-Friable	NAD	60	SF	
5	White Adhesive associated with HA-4	Bathroom 1	5A, 5B, 5C	Good	Non-Friable	NAD	60	SF	
6	Gray Grout associated with HA-4	Bathroom 1	6A, 6B, 6C	Good	Non-Friable	NAD	60	SF	
7	Gray 18" x 6" Ceramic Floor Tile	Laundry Room, Pantry	7A, 7B, 7C	Good	Non-Friable	NAD	76	SF	
8	White Adhesive associated with HA-7	Laundry Room, Pantry	8A, 8B, 8C	Good	Non-Friable	NAD	76	SF	
9	Gray Grout associated with HA-7	Laundry Room, Pantry	9A, 9B, 9C	Good	Non-Friable	NAD	76	SF	
10	White 30" x 6" Wood Pattern Ceramic Floor Tile	Bathroom 1	10A, 10B, 10C	Good	Non-Friable	NAD	45	SF	
11	White Adhesive associated with HA-10	Bathroom 1	11A, 11B, 11C	Good	Non-Friable	NAD	45	SF	
12	Gray Mortar associated with HA-10	Bathroom 1	12A, 12B, 12C	Good	Non-Friable	NAD	45	SF	
13	Tan 2' x 2' Ceramic Floor and Wall Tile	Bathroom 2	13A, 13B, 13C	Good	Non-Friable	NAD	80	SF	
14	White Adhesive associated with HA-13	Bathroom 2	14A, 14B, 14C	Good	Non-Friable	NAD	80	SF	
15	Gray Grout associated with HA-13	Bathroom 2	15A, 15B, 15C	Good	Non-Friable	NAD	80	SF	

HA No.	Material Description	Material Location	Sample Number	Condition	Friability	Asbestos Content	Estimated Quantity	Unit	Notes
16	Brown 6" x 24" Wood Pattern Ceramic Floor Tile	Bathroom 3	16A, 16B, 16C	Good	Non-Friable	NAD	81	SF	
17	White Adhesive associated with HA-16	Bathroom 3	17A, 17B, 17C	Good	Non-Friable	NAD	81	SF	
18	Gray Grout associated with HA-16	Bathroom 3	18A, 18B, 18C	Good	Non-Friable	NAD	81	SF	
19	Beige 1' x 2' Ceramic Wall Tiles	Bathroom 3	19A, 19B, 19C	Good	Friable	NAD	48	SF	
20	White Adhesive associated with HA-19	Bathroom 3	20A, 20B, 20C	Good	Non-Friable	NAD	48	SF	
21	Gray Grout associated with HA-19	Bathroom 3	21A, 21B, 21C	Good	Non-Friable	NAD	48	SF	
22	Black Vapor Barrier	Throughout 1st Floor beneath Hardwood Flooring	22A, 22B, 22C	Good	Non-Friable	NAD	1,200	SF	
23	Black Vapor Barrier	Exterior associated with Exterior Siding	23A, 23B, 23C	Good	Non-Friable	NAD	2,380	SF	
24	Black Asphalt Roof Shingles	Roof of House and Garage	24A, 24B, 24C	Good	Non-Friable	NAD	1,660	SF	
25	Black Tar/Felt beneath HA-24	Roof of House and Garage	25A, 25B, 25C	Good	Non-Friable	NAD	1,660	SF	
26	Concrete Foundation	Exterior	26A, 26B, 26C	Good	Non-Friable	NAD	600	SF	
27	White Ceramic Wall Tile Backsplash	Kitchen	27A, 27B, 27C	Good	Non-Friable	NAD	48	SF	
28	Beige Adhesive associated with HA-27	Kitchen	28A, 28B, 28C	Good	Non-Friable	NAD	48	SF	
29	Brown Grout associated with HA-27	Kitchen	29A, 29B, 29C	Good	Non-Friable	NAD	48	SF	

HA No.	Material Description	Material Location	Sample Number	Condition	Friability	Asbestos Content	Estimated Quantity	Unit	Notes
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Notes:

ACM = Asbestos-Containing Material

Assumed ACM = A material determined by the inspector to be suspect ACM and is considered asbestos-containing until laboratory analysis can prove otherwise.

NAD = No Asbestos Detected

EA = Each

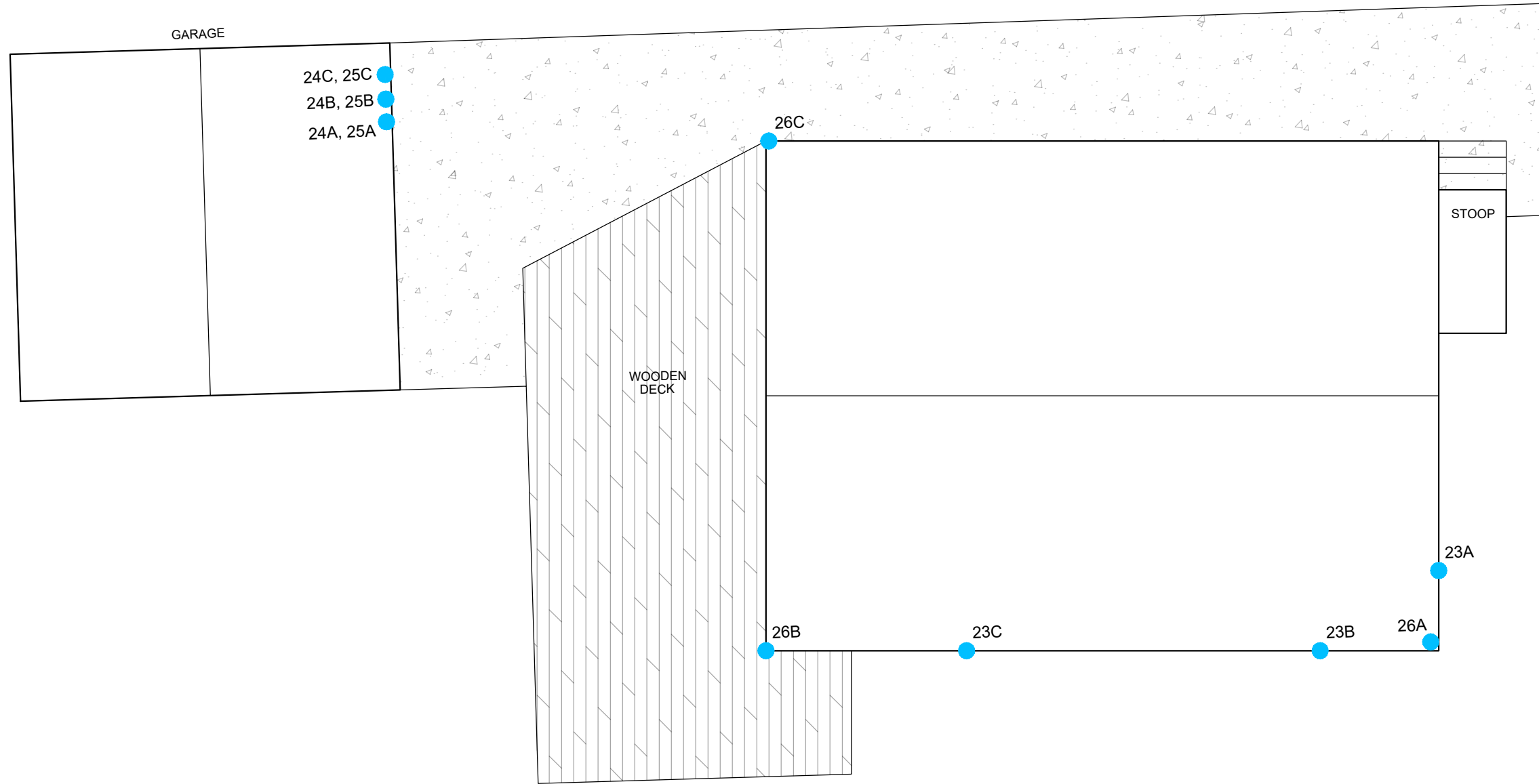
LF = Linear Foot

SF = Square Foot

Figures

LEGEND

● ASBESTOS SAMPLE



NOTE
BASE MAP DEVELOPED FROM ONSITE INVESTIGATION.



Approximate Scale: 1 in. = 8 ft.

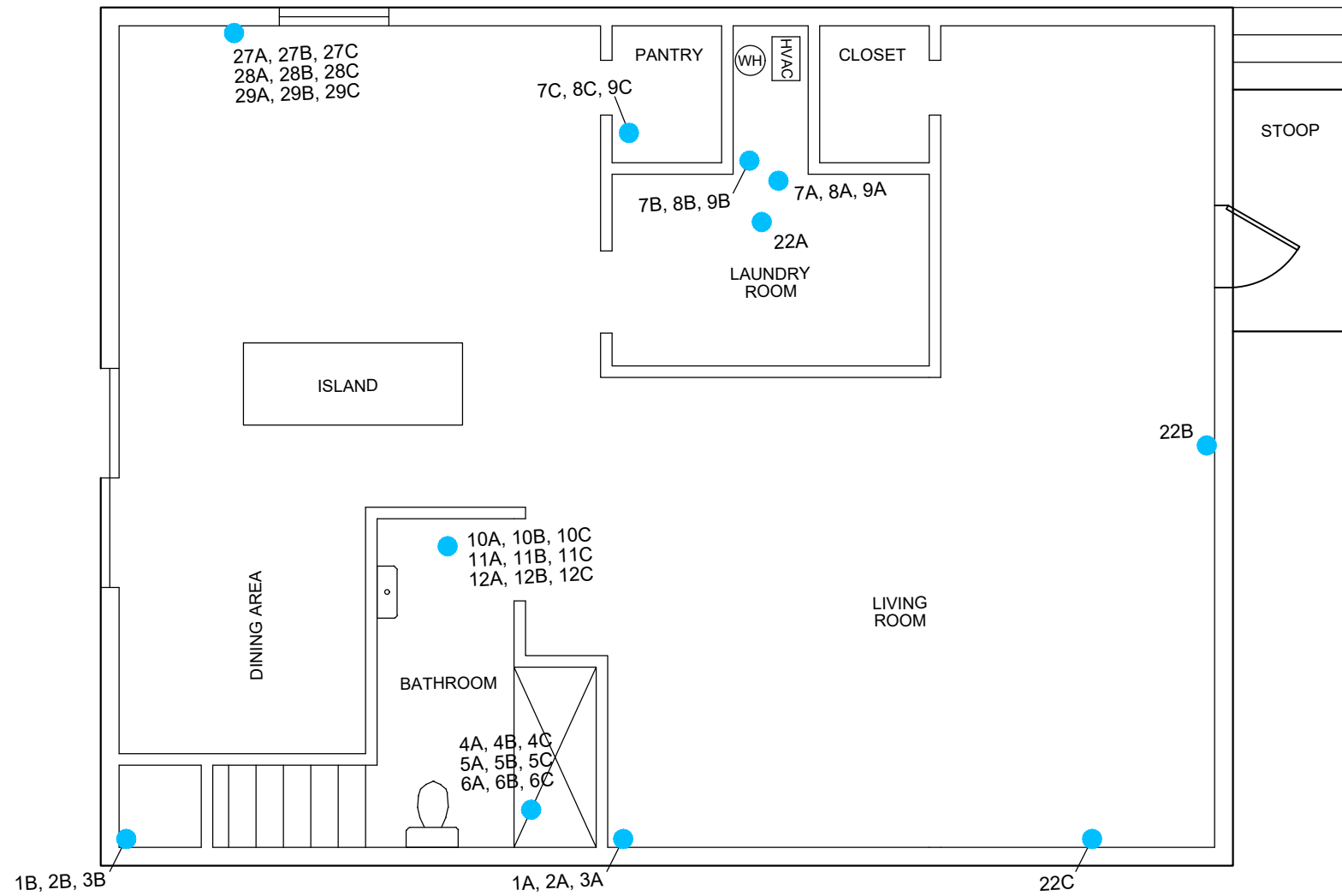
30227204.01 - IDOT / Asbestos Surveys WO #33
Job No. R-91-016-20
Route I-80 Parcel 1P10127
603 Kiep Avenue
Joliet, Will County, Illinois
ASBESTOS ABATEMENT SURVEY

**SAMPLING LOCATIONS -
EXTERIOR**



FIGURE

1



LEGEND

● ASBESTOS SAMPLE

NOTE

BASE MAP DEVELOPED FROM ONSITE INVESTIGATION.



Approximate Scale: 1 in. = 6 ft.

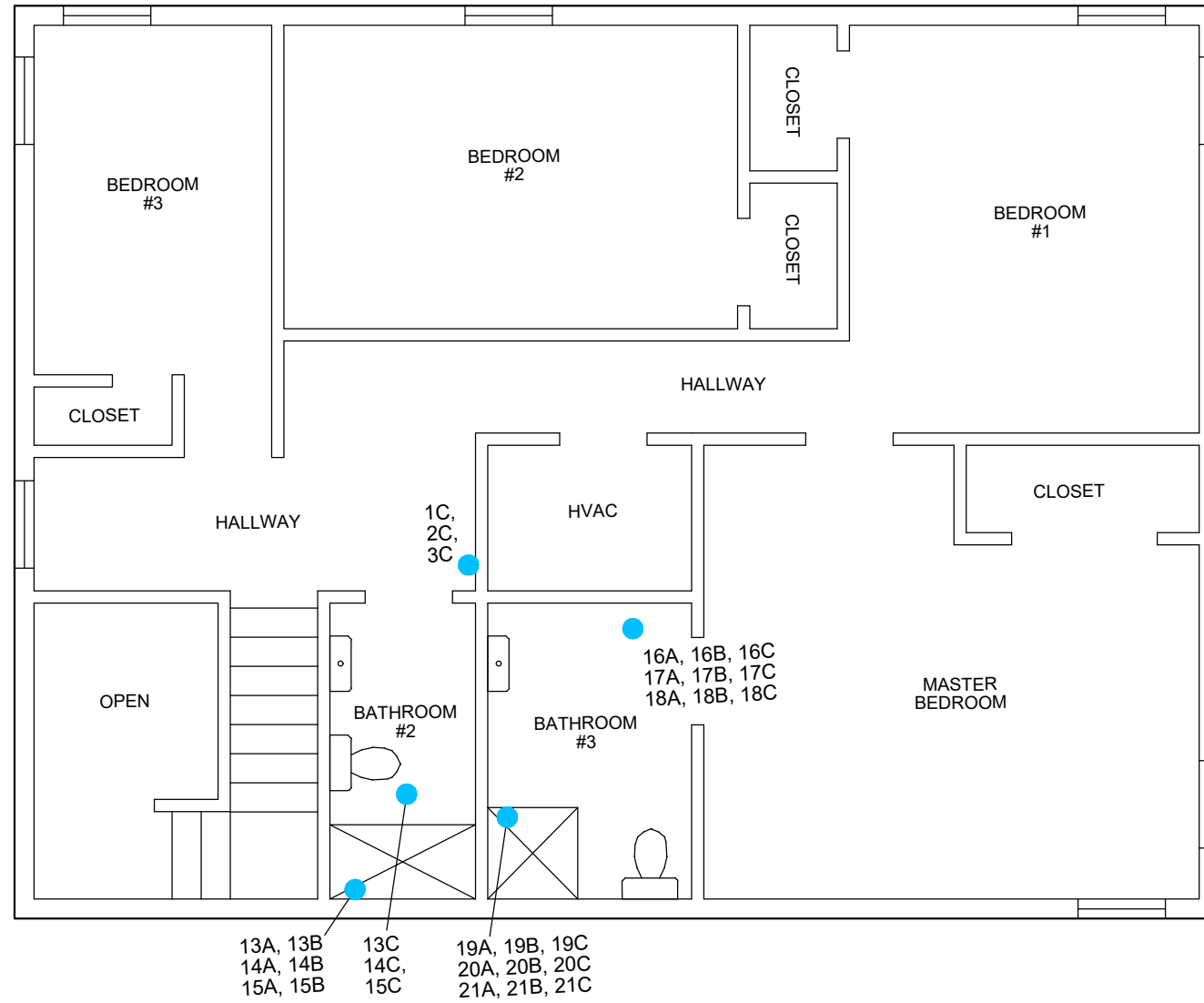
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Route I-80 Parcel 1P10127
603 Kiep Avenue
Joliet, Will County, Illinois
ASBESTOS ABATEMENT SURVEY

**SAMPLING LOCATIONS -
FIRST FLOOR**



FIGURE

2



LEGEND

● ASBESTOS SAMPLE

NOTE

BASE MAP DEVELOPED FROM ONSITE INVESTIGATION.



Approximate Scale: 1 in. = 6 ft.

30227204.01 - IDOT / Asbestos Surveys WO #33
Job No. R-91-016-20
Route I-80 Parcel 1P10127
603 Kiep Avenue
Joliet, Will County, Illinois
ASBESTOS ABATEMENT SURVEY

**SAMPLING LOCATIONS -
SECOND FLOOR**



FIGURE

3

Appendix A

Limitations and Service Constraints

Limitations and Service Constraints

The opinions, conclusions and recommendations presented in this report are limited to the information obtained during the performance of the specific scope of service identified in the report. To the extent that Arcadis relied upon any information prepared by other parties not under direct contract to Arcadis, no representation as to the accuracy or completeness of such information is made. This report is an instrument of professional service and the services described in the report were performed in accordance with generally accepted standards and level of skill and care ordinarily exercised by members of the profession working under similar conditions including comparable budgetary and schedule constraints. No warranty, guarantee or certification express or implied, is intended or given with respect to Arcadis' services, opinions, conclusions, or recommendations. This statement is in lieu of any other statement either expressed or implied.

Arcadis' observations, the results of testing and Arcadis' opinions, conclusions and recommendations apply solely to conditions existing at the specific times when and specific locations where Arcadis' investigative work was performed. Arcadis affirms that data gathered and presented by Arcadis in this report was collected in an appropriate manner in accordance with generally accepted methods and practices. Arcadis cannot be responsible for decisions made by our client solely on the basis of economic factors. Observation and testing activities such as those conducted by Arcadis are inherently limited and do not represent a conclusive or complete characterization. Arcadis analyzed only the substances, conditions and locations described in the report at the time indicated. Conditions in other parts of the project site, building or area may vary from conditions at the specific locations where observations were made and where testing was performed by Arcadis. Additionally, other building material hazards which were not identified by Arcadis, may also be present in inaccessible areas, including within walls and cavities, above ceilings, and below floors. Therefore, the extent of Arcadis' opinions, conclusions and recommendations are limited and 100% confidence in these opinions, conclusions and recommendations cannot reasonably be achieved. Nothing contained in this report shall relieve any other party of its responsibility to abide by contract documents and applicable laws, codes, regulations, or standards nor shall it be considered medical advice or consultation.

This report is expressly for the sole and exclusive use of the party for whom this report was originally prepared and for the particular purpose outlined in the report. Only the party for whom this report was originally prepared and/or other specifically named parties have the right to make use of and rely upon this report. Reuse of this report or any portion thereof for other than its intended purpose, or if modified, or if used by third parties, shall be at the user's sole risk. This report must be presented in its entirety.

Appendix B

Accreditations

Inspector

Laboratory



OCCUPATIONAL TRAINING & SUPPLY, INC.

Asbestos Building Inspector Refresher

Occupational Training & Supply, Inc. certifies that

Anthony Spalla

has successfully completed the Asbestos Building Inspector Refresher course and has passed the competency exam with a minimum score of 70%. The course is accredited by the Illinois Department of Public Health and Indiana Department of Environmental Management for purposes of accreditation in accordance with EPA 40 CFR 763, Asbestos Hazard Emergency response Act (AHERA) and TSCA Title II.

Course Date: 7/14/2023

Exam Date: 7/14/2023

Expiration Date: 7/14/2024

Certificate Number: BIR2307142002

Kathy DeSalvo, Director



525-535 West Jefferson Street • Springfield, Illinois 62761-0001 • www.dph.illinois.gov

PATRICK W HOOK
 2025 WOODLANE DR
 LINDENHURST, IL 60046

3/11/2024

ASBESTOS PROFESSIONAL LICENSE ID NUMBER: 10967

Enclosed is your Asbestos Professional License. Please note the expiration date on the card and in the image depicted below.

COPY OF THE ASBESTOS PROFESSIONAL LICENSE

Front of License

Back of License

 <p>ASBESTOS PROFESSIONAL LICENSE</p>			<p>ENDORSEMENTS</p> <p>INSPECTOR</p> <p>PROJECT MANAGER</p>	<p>TC EXPIRES</p> <p>1/12/2025</p> <p>1/13/2025</p>
<p>ID NUMBER</p> <p>100 - 10967</p>	<p>ISSUED</p> <p>3/11/2024</p>	<p>EXPIRES</p> <p>05/15/2025</p>	<p>Alteration of this license shall result in legal action This license issued under authority of the State of Illinois Department of Public Health This license is valid only when accompanied by a valid training course certificate.</p>	
<p>PATRICK W HOOK 2025 WOODLANE DR LINDENHURST, IL 60046 Environmental Health</p>				

If you have any questions or need further assistance, contact the Asbestos Program at (217)782-3517 or fax (217)785-5897.

Our WEB address is: dph.illinois.gov/topics-services/environmental-health-protection/asbestos
 EMAIL Address: dph.asbestos@illinois.gov

United States Department of Commerce
National Institute of Standards and Technology



Certificate of Accreditation to ISO/IEC 17025:2017

NVLAP LAB CODE: 101202-0

STAT Analysis Corporation
Chicago, IL

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

Asbestos Fiber Analysis

*This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.
This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality
management system (refer to joint ISO-ILAC-IAF Communique dated January 2009).*

2023-07-01 through 2024-06-30

Effective Dates



A handwritten signature in blue ink, reading 'Dana S. Haman'.

For the National Voluntary Laboratory Accreditation Program

SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

STAT Analysis Corporation

STAT Analysis Corporation
2242 W. Harrison St. Suite 200
Chicago, IL 60612
Carolyn Mazzuca
Phone: 312-733-0551
Email: cmazzuca@statanalysis.com
<http://www.STATAnalysis.com>

ASBESTOS FIBER ANALYSIS

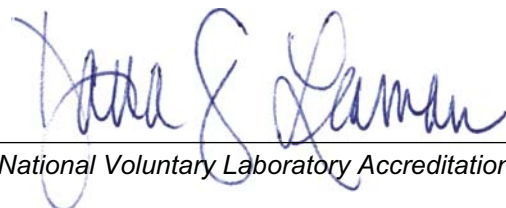
NVLAP LAB CODE 101202-0

Bulk Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A01	EPA -- 40 CFR Appendix E to Subpart E of Part 763, Interim Method of the Determination of Asbestos in Bulk Insulation Samples
18/A03	EPA 600/R-93/116: Method for the Determination of Asbestos in Bulk Building Materials

Airborne Asbestos Analysis

<u>Code</u>	<u>Description</u>
18/A02	U.S. EPA's "Interim Transmission Electron Microscopy Analytical Methods-Mandatory and Nonmandatory-and Mandatory Section to Determine Completion of Response Actions" as found in 40 CFR, Part 763, Subpart E, Appendix A.



For the National Voluntary Laboratory Accreditation Program

Appendix C

Laboratory Reports

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA/600/R-93/116

Arcadis US Inc.
 225 W. Wacker Drive, Suite 2015
 Chicago, IL 60606
 Phone: (312) 575-3718

Reference:	30227204	Date Received:	06/14/2024
Location:	IDOT WO#33 603 Kiep Ave	Date Analyzed:	06/20/2024
Batch No.:	371088	Date Reported:	06/20/2024
Customer No.:	2530	Turn Around Time:	5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088001	HA-1A	ND	Cellulose 10-15% Binder 85-90%
371088002	HA-1B	ND	Cellulose 10-15% Binder 85-90%
371088003	HA-1C	ND	Cellulose 10-15% Binder 85-90%
371088004	HA-2A	ND	Cellulose 1-5% Binder 95-99%
371088005	HA-2B	ND	Cellulose 1-5% Binder 95-99%
371088006	HA-2C	ND	Cellulose 1-5% Binder 95-99%
371088007	HA-3A	ND	Cellulose 60-65% Binder 35-40%
371088008	HA-3B	ND	Cellulose 60-65% Binder 35-40%
371088009	HA-3C	ND	Cellulose 60-65% Binder 35-40%
371088010	HA-4A	ND	Binder 99-100%
371088011	HA-4B	ND	Binder 99-100%

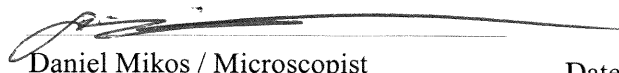
ND = Asbestos Not Detected (Not Present) NA = Not Analyzed NS = Not Submitted

Components of inhomogeneous samples are analyzed per our Standard Operating Procedure, or per customer request.

The use of the NVLAP logo does not imply endorsement by NVLAP or any agency of the US Government.

The information contained in this report and any attachments is confidential information intended only for the use of the individual or entities named above. The results of this report relate only to the samples tested. If you have received this report in error, please notify us immediately by phone. This report shall not be reproduced, except in its entirety, unless written approval has been obtained from the laboratory. This report remains property of STAT Analysis until payment is received in full (see invoice).

Analyzed by Name :



Daniel Mikos / Microscopist

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA/600/R-93/116

Arcadis US Inc.
 225 W. Wacker Drive, Suite 2015
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 Phone: (312) 575-3718

Reference:	30227204	Date Received:	06/14/2024
Location:	IDOT WO#33 603 Kiep Ave	Date Analyzed:	06/20/2024
Batch No.:	371088	Date Reported:	06/20/2024
Customer No.:	2530	Turn Around Time:	5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088012	HA-4C	ND	Binder 99-100%
371088013	HA-5A	ND	Cellulose 1-5% Binder 95-99%
371088014	HA-5B	ND	Cellulose 1-5% Binder 95-99%
371088015	HA-5C	ND	Cellulose 1-5% Binder 95-99%
371088016	HA-6A	ND	Cellulose 1-5% Binder 95-99%
371088017	HA-6B	ND	Cellulose 1-5% Binder 95-99%
371088018	HA-6C	ND	Cellulose 1-5% Binder 95-99%
371088019	HA-7A	ND	Binder 99-100%
371088020	HA-7B	ND	Binder 99-100%
371088021	HA-7C	ND	Binder 99-100%
371088022	HA-8A	ND	Cellulose 1-5% Binder 95-99%
371088023	HA-8B	ND	Cellulose 1-5% Binder 95-99%

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Analyzed by Name :


 Daniel Mikos / Microscopist

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

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 Location: IDOT WO#33 603 Kiep Ave Date Analyzed: 06/20/2024
 Batch No.: 371088 Date Reported: 06/20/2024
 Customer No.: 2530 Turn Around Time: 5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088024	HA-8C	ND	Cellulose 1-5% Binder 95-99%
371088025	HA-9A	ND	Cellulose 1-5% Binder 95-99%
371088026	HA-9B	ND	Cellulose 1-5% Binder 95-99%
371088027	HA-9C	ND	Cellulose 1-5% Binder 95-99%
371088028	HA-10A	ND	Binder 99-100%
371088029	HA-10B	ND	Binder 99-100%
371088030	HA-10C	ND	Binder 99-100%
371088031	HA-11A	ND	Cellulose 1-5% Binder 95-99%
371088032	HA-11B	ND	Cellulose 1-5% Binder 95-99%
371088033	HA-11C	ND	Cellulose 1-5% Binder 95-99%
371088034	HA-12A	ND	Cellulose 1-5% Binder 95-99%

ND = Asbestos Not Detected (Not Present) NA = Not Analyzed NS = Not Submitted

Components of inhomogeneous samples are analyzed per our Standard Operating Procedure, or per customer request.

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Analyzed by Name : 

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Method: EPA/600/R-93/116

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Reference: 30227204 Date Received: 06/14/2024
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 Customer No.: 2530 Turn Around Time: 5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088035	HA-12B	ND	Cellulose 1-5% Binder 95-99%
371088036	HA-12C	ND	Cellulose 1-5% Binder 95-99%
371088037	HA-13A	ND	Binder 99-100%
371088038	HA-13B	ND	Binder 99-100%
371088039	HA-13C	ND	Binder 99-100%
371088040	HA-14A	ND	Cellulose 1-5% Binder 95-99%
371088041	HA-14B	ND	Cellulose 1-5% Binder 95-99%
371088042	HA-14C	ND	Cellulose 1-5% Binder 95-99%
371088043	HA-15A	ND	Cellulose 1-5% Binder 95-99%
371088044	HA-15B	ND	Cellulose 1-5% Binder 95-99%
371088045	HA-15A	ND	Cellulose 1-5% Binder 95-99%
371088046	HA-16A	ND	Binder 99-100%


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Analyzed by Name :


 Daniel Mikos / Microscopist

ASBESTOS ANALYSIS BY POLARIZED LIGHT MICROSCOPY

Method: EPA/600/R-93/116

Arcadis US Inc.
 225 W. Wacker Drive, Suite 2015
 Chicago, IL 60606
 Phone: (312) 575-3718

Reference:	30227204	Date Received:	06/14/2024
Location:	IDOT WO#33 603 Kiep Ave	Date Analyzed:	06/20/2024
Batch No.:	371088	Date Reported:	06/20/2024
Customer No.:	2530	Turn Around Time:	5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088047	HA-16B	ND	Binder 99-100%
371088048	HA-16C	ND	Binder 99-100%
371088049	HA-17A	ND	Cellulose 1-5% Binder 95-99%
371088050	HA-17B	ND	Cellulose 1-5% Binder 95-99%
371088051	HA-17C	ND	Cellulose 1-5% Binder 95-99%
371088052	HA-18A	ND	Cellulose 1-5% Binder 95-99%
371088053	HA-18B	ND	Cellulose 1-5% Binder 95-99%
371088054	HA-18C	ND	Cellulose 1-5% Binder 95-99%
371088055	HA-19A	ND	Binder 99-100%
371088056	HA-19B	ND	Binder 99-100%
371088057	HA-19C	ND	Binder 99-100%
371088058	HA-20A	ND	Cellulose 1-5% Binder 95-99%

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Batch No.:	371088	Date Reported:	06/20/2024
Customer No.:	2530	Turn Around Time:	5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088059	HA-20B	ND	Cellulose 1-5% Binder 95-99%
371088060	HA-20C	ND	Cellulose 1-5% Binder 95-99%
371088061	HA-21A	ND	Cellulose 1-5% Binder 95-99%
371088062	HA-21B	ND	Cellulose 1-5% Binder 95-99%
371088063	HA-21C	ND	Cellulose 1-5% Binder 95-99%
371088064	HA-22A	ND	Cellulose 60-65% Binder 35-40%
371088065	HA-22B	ND	Cellulose 60-65% Binder 35-40%
371088066	HA-22C	ND	Cellulose 60-65% Binder 35-40%
371088067	HA-23A	ND	Cellulose 60-65% Binder 35-40%
371088068	HA-23B	ND	Cellulose 60-65% Binder 35-40%

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 Batch No.: 371088 Date Reported: 06/20/2024
 Customer No.: 2530 Turn Around Time: 5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088069	HA-23C	ND	Cellulose 60-65% Binder 35-40%
371088070	HA-24A	ND	Binder 85-90% Glass 10-15%
371088071	HA-24B	ND	Binder 85-90% Glass 10-15%
371088072	HA-24C	ND	Binder 85-90% Glass 10-15%
371088073	HA-25A	ND	Cellulose 60-65% Binder 35-40%
371088074	HA-25B	ND	Cellulose 60-65% Binder 35-40%
371088075	HA-25C	ND	Cellulose 60-65% Binder 35-40%
371088076	HA-26A	ND	Cellulose 1-5% Binder 95-99%
371088077	HA-26B	ND	Cellulose 1-5% Binder 95-99%
371088078	HA-26C	ND	Cellulose 1-5% Binder 95-99%


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Location:	IDOT WO#33 603 Kiep Ave	Date Analyzed:	06/20/2024
Batch No.:	371088	Date Reported:	06/20/2024
Customer No.:	2530	Turn Around Time:	5 Days

Laboratory Sample	Customer Sample Number	Asbestos Components (%)	Non-Asbestos Components (%)
371088079	HA-27A	ND	Binder 99-100%
371088080	HA-27B	ND	Binder 99-100%
371088081	HA-27C	ND	Binder 99-100%
371088082	HA-28A	ND	Cellulose 1-5% Binder 95-99%
371088083	HA-28B	ND	Cellulose 1-5% Binder 95-99%
371088084	HA-28C	ND	Cellulose 1-5% Binder 95-99%
371088085	HA-29A	ND	Cellulose 1-5% Binder 95-99%
371088086	HA-29B	ND	Cellulose 1-5% Binder 95-99%
371088087	HA-29C	ND	Cellulose 1-5% Binder 95-99%


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Analyzed by Name :



Daniel Mikos / Microscopist



2242 W. Harrison, Suite 200, Chicago, Illinois 60612 Phone: (312) 733-0551 Fax: (312) 733-2386
 e-mail address: info@thesterlinglab.com

CHAIN OF CUSTODY RECORD

Page: 1 of 1

Client: Arcadis
 Street Address: 225 W. Wacker Dr Suite 2015
 City, State, Zip: Chicago, IL, 60640
 Phone: 630-803-5905
 Fax: _____
 e-mail/Alt. Fax: _____
 Project Number: 30227204
 Project Name: IDOT W04#33
 Project Location: 603 Kier Ave.
 Project Manager: Brendan O'Keefe
 P.O. Number: _____

Turn Around: Immediate: 4 Hrs: 8 Hrs: 24 Hrs: 1 Day: 2 Days: 3 Days: 5 Days:

Date Due: _____ Time Due: _____ Note: Not all turn around times are available for all analysis.

OFFICE USE ONLY BELOW:

Batch No.: 371088

Samples Acceptable: Yes: No:

Checked by (Initial/Date): JS 6/2024

Comments: _____

Relinquished by: Anthony Galla Date/Time: 06/14/2024
 Received by: g Date/Time: 6/14/24 16:50
 Relinquished by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____
 Relinquished by: _____ Date/Time: _____
 Received by: _____ Date/Time: _____

Client Sample Number/Description	Date Taken	Time		Rate (lpm)	Volume (Liters)	Area Wiped (ft ²)	Laboratory Sample No.	PCM Asbestos	PLM Asbestos (Bulk)	PLM Point Count	PLM Gravimetric	TEM Air Asbestos	TEM Bulk Asbestos	TEM Gravimetric Asb.	TEM Microvac Asb.	TEM Water	Other:
		On	Off														
<u>HA-(1-29)</u>	<u>06/12/24</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<u>—</u>	<input checked="" type="checkbox"/>									

Comments: Please Email Results to Brendan.Keefe@arcadis.com.

HA # and Sample ID (Ex. 1-1, 1-2, 1-3)	NA Material Description	Color	Texture	Material Location(s) Please identify Each Room or Area the Material is Located. (This is Not The Sample Location)	Location (2) (Floor, Wall, Ceiling, etc)	Condition	Approximate Material Quantity	Friable	Sample Location	Photo #
1A 1B 1C	Gypsum board	white	R	Throughout	Wall	G	4000 SF	N	Living Room Stair Well 2 nd Floor Hallway	1
2A 2B 2C	Joint Compound assoc. w/ HA-1	white	R	↓	Wall	↓	↓	Y	↓	↓
3A 3B 3C	Tape assoc. w/ HA-1	Beige	S		N					
4A 4B 4C	1'x3' Ceramic Wall Tile	white	S		Bathroom/			60 SF		
5A 5B 5C	Adhesive assoc. w/ HA-4	white	R	↓	↓	↓	↓	↓	↓	
6A 6B 6C	Grout assoc. w/ HA-4	Gray	R							

Site Notes

HA # and Sample ID (Ex. 1-1, 1-2, 1-3)	HA Material Description	Color	Texture	Material Location(s) Please Identify Each Room or Area the Material is Located! (This is Not The Sample Location)	Location (R) (Floor, Wall, Ceiling, etc)	Condition	Approximate Material Quantity	Friable	Sample Location	Photo #
7A	18" x 6" Wood			Laundry Room					Laundry Room	7
7B	Pattern Ceramic	Gray	S	Pantry	Floor	G	76SF	N	Laundry Room	
7C	Floor tile								Pantry	
8A	Adhesive			↓	↓	↓	↓	↓	↓	8
8B	assoc. w/HA-7	White	R							
8C										
9A	Grout assoc.			↓	↓	↓	↓	↓	9	
9B	w/HA-7	Gray	R							
9C										
10A	2.5"			Bathroom 1	Floor	↓	45SF	↓	Bathroom 1 Floor	10
10B	30" x 6" Wood	White	S							
10C	Pattern Ceramic floor tile									
11A	Adhesive			↓	↓	↓	↓	↓	11	
11B	assoc. w/HA-10	White	R							
11C										
12A	Grout assoc.			↓	↓	↓	↓	↓	12	
12B	w/HA-10	Gray	R							
12C										

HA # and Sample ID (Ex. 1-1, 1-2, 1-3)	HA Material Description	Color	Texture	Material Location(s) Please Identify Each Room or Area the Material is Located. (This is Not The Sample Location)	Location (2) (Floor, Wall, Ceiling, etc)	Condition	Approximate Material Quantity	Frangible	Sample Location:	Photo #
13A	2'x2' Ceramic	Multi Colored	S	Bathroom 2	Floor Wall	G	80SF	N	2nd Floor Bathroom	13
13B	Floor And Wall	TAN								
13C	Tile									
14A	Adhesive	White	R	↓	↓	↓	↓	↓	↓	14
14B	assoc w/ HA-13									
14C										
15A	Grout assoc.	Gray	R	↓	↓	↓	↓	↓	↓	15
15B	w/ HA-13									
15C										
16A	6"x24" Wood	Brown	S	2nd Floor HAC Room Bathroom 3	Floor	↓	81SF	↓	2nd Floor Bathroom	16
16B	Pattern Ceramic									
16C	Floor tile									
17A	Adhesive	White	R	↓	↓	↓	↓	↓	↓	17
17B	assoc. w/									
17C	HA-16									
18A	Grout assoc.	Gray	R	↓	↓	↓	↓	↓	↓	18
18B	w/ HA-16									
18C										

Site Notes

Store # _____
 Address: _____

Inspector _____
 Company _____

371088

HA # and Sample ID (Ex. 1-1, 1-2, 1-3)	HA Material Description	Color	Texture	Material Location(s) Please Identify Each Room or Area the Material is Located. (This is Not the Sample Location)	Location (2) (Floor, Wall, Ceiling, etc)	Condition	Approximate Material Quantity	Friable	Sample Location	Photo #					
19A 19B 19C	1'x2' Ceramic Wall Tile	Beige	S	Bathroom 3	Wall	G	48SF	N	Shower	19					
20A 20B 20C	Adhesive assoc. w/ HA-19	White	R	↓	↓				↓	20					
21A 21B 21C	Grout assoc. w/ HA-19	Dark Gray	R								↓	↓	↓	↓	21
22A 22B 22C	Vapor barrier under Hardwood Flooring	Black	S								Through out 1st Floor	Floor		1,200SF	
23A 23B 23C	Ext. Vapor barrier assoc. w/ Siding of House	Black	S	Ext. Siding of House	Ext. Wall		2,380SF		East side of House South side of House South side of House	23					
24A 24B 24C	Asphalt Shingles assoc. w/ House and Garage	Black	R	Roof of House and Garage	Roof		1600SF 460		Garage Roof	24					

Site Notes

37088

HA # and Sample ID (Ex. 1-1, 1-2, 1-3)	Material Description	Color	Texture	Material Location(s) Please Identify Each Room or Area the Material is Located. (This is Not the Sample Location)	Location (2) (Floor, Wall, Ceiling, etc)	Condition	Approximate Material Quantity	Photos	Sample Location	Photo #
25A	Tar / felt	Black	R	Roof of House and Garage	Roof	G	1600SF	N	Garage Roof	25
25B	layer under									
25C	HA-24									
26A	Concrete	Gray	R	Exterior	Ext. Floor	G	600SF	N	SE corner of House	26
26B	foundation									
26C	foundation									
27A	Ceramic	White	S	Kitchen	Wall	G	48SF	N	Kitchen	27
27B	Wall Tile									
27C	Backsplash									
28A	Adhesive	Beige	R	↓	↓	G	↓	↓	Kitchen	28
28B	assoc. w/									
28C	HA-27									
29A	Grout	Brown	R	↓	↓	G	↓	↓	↓	29
29B	assoc. w/									
29C	HA-27									

Site Note: HA-26 was perimeter.

Appendix D

Photo Log



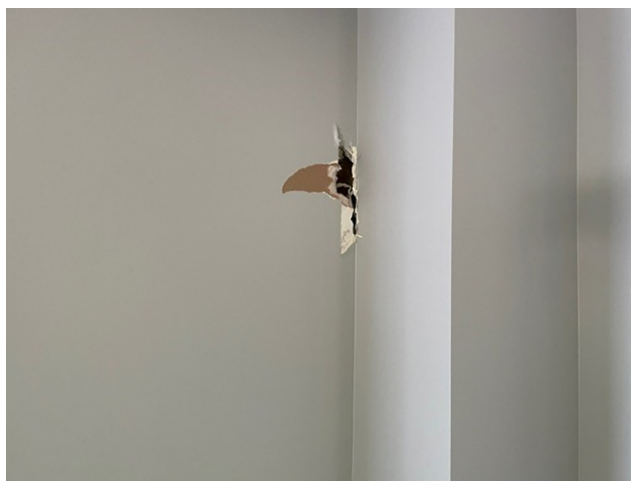
View of House



Rear View of House



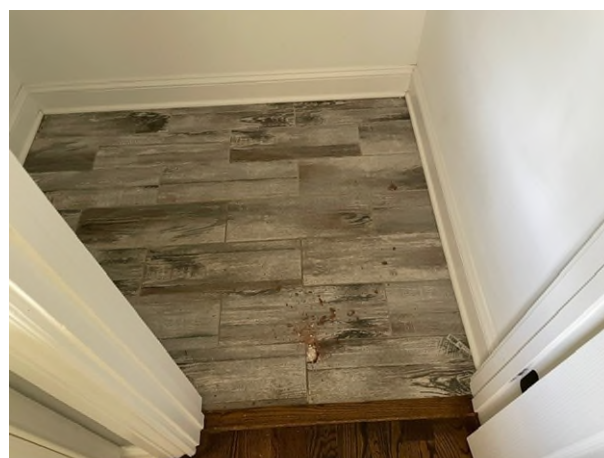
HA-1: Gypsum board



**HA-2: Joint Compound associated with HA-1
HA-3: Drywall Tape associated with HA-1**



**HA-4: White 1' x 3' Ceramic Wall Tile
HA-5: White Adhesive associated with HA-4
HA-6: Gray Grout associated with HA-4**



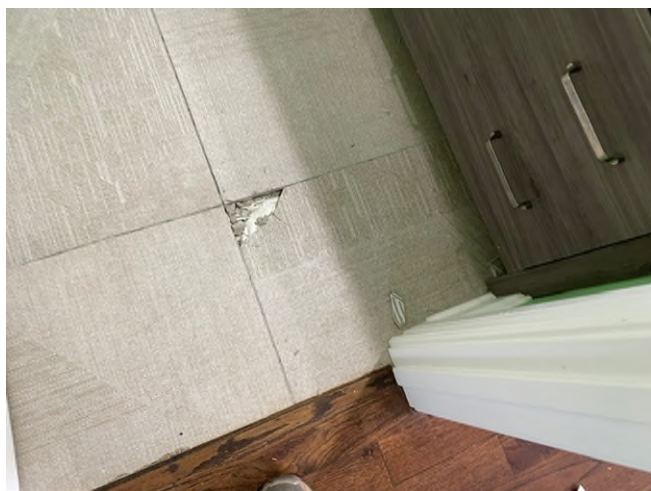
**HA-7: Gray 18" x 6" Wood Pattern Ceramic Floor Tile
HA-8: White Adhesive associated with HA-7
HA-9: Gray Grout associated with HA-7**



HA-10: White 30" x 6" Wood Pattern Ceramic Floor Tile
HA-11: White Adhesive associated with HA-10
HA-12: Gray Grout associated with HA-10



HA-13: Tan 2' x 2' Ceramic Wall and Floor Tile



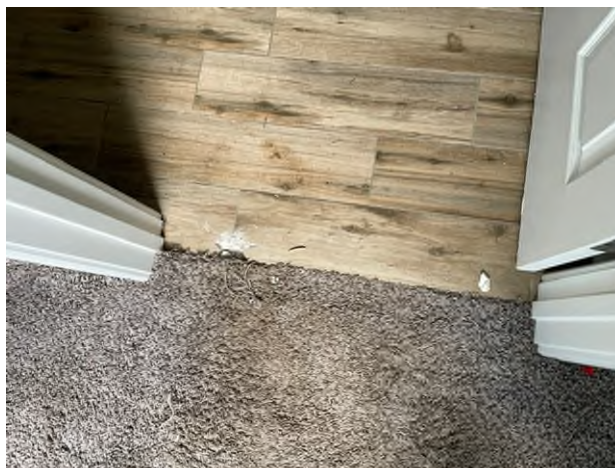
HA-14: White Adhesive associated with HA-13



HA-15: Gray Grout associated with HA-13



HA-16: Brown 6' x 24' Wood Pattern Ceramic Floor Tile



HA-17: White Adhesive associated with HA-16
HA-18: Gray Grout associated with HA-16



HA-19: Beige 1' x 2' Ceramic Wall Tile
HA-20: White Adhesive associated with HA-19
HA-21: Dark Gray Grout associated with HA-19



HA-22: Vapor Barrier beneath Hardwood Flooring



HA-23: Black Exterior Vapor Barrier



HA-24: Asphalt Roof Shingles



HA-25: Tar/Felt Roofing Paper beneath HA-24



HA-26: Concrete Foundation



HA-27: White Ceramic Wall Tile Backsplash
HA-28: Beige Adhesive associated with HA-27
HA-29: Brown Grout associated with HA-27

Arcadis U.S., Inc.
225 West Wacker Drive
Suite 2015
Chicago, Illinois 60606
Phone: 312 917 1000
www.arcadis.com