Residential Asbestos and Lead-Based Paint Assessment Twelve Residential Structures Georgetown, South Carolina S&ME Project No. 22630177

PREPARED FOR:

Georgetown County
716 Prince Street
Georgetown, South Carolina 29440

PREPARED BY:

S&ME, Inc.
1330 Highway 501 Business
Conway, SC 29526

January 3, 2023

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Georgetown County
716 Prince Street
Georgetown, South Carolina 29440

Attention: Mr. Matthew Millwood

Reference: **Residential Asbestos and Lead-Based Paint Assessment**
Twelve Residential Structures
Georgetown, Georgetown County, South Carolina
S&ME Project No. 22630177

Dear Mr. Millwood:

S&ME, Inc. (S&ME) is pleased to provide the enclosed report detailing our asbestos and lead-based paint assessment at the referenced sites. The purpose of the assessment was to identify asbestos-containing materials (ACM) and lead-based paint coatings in the abandoned residential structures prior to future demolition activities. Our services were performed on December 5th through December 7th, 2022, in general accordance with S&ME Proposal No. 22630177, dated September 29, 2022. The following report includes the project background, sampling and analysis procedures, findings and results, and conclusions and recommendations as necessary.

This report is provided for the sole use of the client. Use of this report by any other parties will be at such party's sole risk and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the assessment and of the specific areas referenced.

S&ME appreciates this opportunity to provide our services to you. Please call if you have questions concerning this report or any of our services.

Sincerely,

S&ME, Inc.

Chandler McLelland
Asbestos Building Inspector
(SCDHEC License No. BI-002079)

Jason McCann
Project Manager
(SCDHEC License No. BI-01328)

Tom Behnke, P.G., CHMM
Senior Reviewer

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Executive Summary

An asbestos and lead-based paint assessment was conducted by S&ME, Inc. (S&ME) on December 5th through December 7th, 2022, for the twelve residential structures in Georgetown, South Carolina. The purpose of the assessment was to identify the presence of asbestos-containing materials (ACM) and lead-based paint in the structure prior to future demolition activities.

The twelve residential structures consist of all single-family homes, ten stick-built homes and two mobile homes. All of the structures are dilapidated and abandoned. The structures are identified at the following addresses:

- 82 Jacquelyn Dr.
- 122 Jacquelyn Dr.
- 100 Gossett Ln.
- 354 Greentown Rd.
- 508 Greentown Rd.
- 20 Emily Ct.
- 431 Graves Station St.
- 56 Jessica Dr.
- 41 Katherine Ct.
- 89 Katherine Ct.
- 108 Henrietta Ln.
- 238 Amelia Dr.

Asbestos

The asbestos assessment was performed in general accordance with the South Carolina Department of Health and Environmental Control (SCDHEC) Regulation 61-86.1, *Standards of Performance for Asbestos Projects* effective May 27, 2011. The asbestos assessment included the bulk sampling and analysis of suspect ACMs observed and collected from the structures. The suspect materials identified included:

- Ceiling Tile
- Floor Tile
- Plaster
- Cementitious Paneling
- Felt Paper
- Asphalt Shingle
- Roof/Chimney Mastic
- Sheet Flooring
- Drywall
- Joint Compound
- Window Glazing
- Ceiling Texture

Based on the results of the bulk samples collected and analyzed, ACM was detected in the following materials:

HA	Material Description	Location	Approximate Quantity	Condition/PD	Percent and Type Asbestos
122 Jacquelyn Dr.					
122-WG	Window Glazing	Exterior Widows	220 LF	Poor/High	2% Chrysotile
122-FT3	Floor Tile w/ Felt Paper	Bathroom	110 SF	Poor/Low	5% Chrysotile
354 Greentown Rd.					
354-CM	Cementitious Paneling	Exterior Siding	700 SF	Fair/Low	15% Chrysotile
508 Greentown Rd.					
508-FT	9x9 Floor Tile	Pink Bathroom	35 SF	Fair/Low	2% Chrysotile
508-JC	Joint Compound	Throughout House	3,200 SF	Fair/Low	2% Chrysotile
508-M	Mastic	Chimney	5 SF	Good/Low	Assumed
20 Emily Ct.					
20-CM	Cementitious Paneling	Exterior Siding	1,300 SF	Fair/Low	15% Chrysotile
20-RM	Mastic	Chimney	5 SF	Fair/Low	10% Chrysotile
20-JC	Joint Compound	Throughout House	>1,000 SF	Poor/High	2% Chrysotile
431 Graves Station St.					
431-CM	Cementitious Paneling	Exterior Siding	2,200 SF	Fair/Low	15% Chrysotile
431-SF1	Sheet Flooring (Blue)	Living Room	500 SF	Poor/Low	20% Chrysotile
431-JC	Joint Compound	Throughout House	>1,000 SF	Poor/High	2% Chrysotile
431-EM	Mastic	Siding of House (Arch Shaped)	10 SF	Fair/Low	10% Chrysotile

HA	Material Description	Location	Approximate Quantity	Condition/PD	Percent and Type Asbestos
56 Jessica Dr.					
56-CM	Cementitious Paneling	Exterior Siding	1,500 SF	Fair/Low	15% Chrysotile
56-JC	Joint Compound	Throughout House	>1000 SF	Poor/High	2% Chrysotile
56-SF3	Sheet Flooring (Green)	Right Bedroom	200 SF	Fair/Low	20% Chrysotile
89 Katherine Ct.					
89-JC	Joint Compound	Throughout House	2,900 SF	Poor/High	2% Chrysotile
89-SF1	Sheet Flooring (Tan/Yellow, Pattern)	Kitchen	180 SF	Poor/Low	20% Chrysotile
89-SF2	Sheet Flooring (Tan/Brown, Pattern)	Kitchen	180 SF	Poor/Low	20% Chrysotile
89-SF3	Sheet Flooring (Brown, Pattern)	Right Bedroom and Bathroom	180 SF	Poor/Low	20% Chrysotile
89-SF4	Sheet Flooring (Tan, Pattern)	Right Bathroom on Wall	25 SF	Poor/Low	20% Chrysotile
89-SF5	Sheet Flooring (Brown, Uniform)	Den	180 SF	Poor/Low	20% Chrysotile
89-SF6	Sheet Flooring (Multi-color)	Den	180 SF	Poor/Low	20% Chrysotile

HA = Homogeneous Area SF = Square Feet LF = Linear Feet
*Note: The quantities are estimated and should be field verified for bidding purposes.

No asbestos in concentrations >1% was identified in the following structures:

- 82 Jacquelyn Dr.
- 100 Gossett Ln.
- 41 Katherine Ct.
- 108 Henrietta Ln.
- 238 Amelia Dr.

This summary is for convenience only and should not be relied upon without first reading the full contents of this report, including appended materials.

Lead-Based Paint

The lead-based paint assessment was conducted to identify lead-based paint finishes which will aid in the determination of the possible need for special lead dust engineering controls, lead waste disposal, and personnel protection for workers during future renovation activities.

Painted surfaces associated with the twelve residential structures were considered suspect and analyzed for lead content. SCDHEC defines a lead-based paint as paint containing lead at concentrations of 0.7 milligrams per square centimeter (0.7 mg/cm2) or greater by XRF testing. Lead concentrations applicable to SCDHEC and EPA disposal standards ($\geq$0.7 mg/cm^2) were identified in the following painted components:

122 Jacquelyn Dr.
- Yellow paint on the exterior wood window sash (Side A).
- Yellow paint on the exterior wood window casing (Side A).
- Green paint on the exterior wood shutter (Side A).
- Yellow paint on the exterior wood window casing (Side C).
- Yellow paint on the exterior wood trim (Side C).
- Yellow paint on the front porch metal support (Side A).
- Blue paint on the exterior wood door (Side C).

100 Gossett Ln.
- Black paint on the exterior wood window sash (Side B).

508 Greentown Rd.
- White paint on the exterior wood soffit (Side A).
- Green paint on the exterior wood ceiling (Side A).
- Blue paint on the interior ceramic bathroom wall (Side A).
- Blue paint on the interior ceramic bathroom tub (Side A).

20 Emily Ct.
- White paint on the exterior wood door (Side D).

431 Graves Station St.
- Green paint on the exterior wood door casing (Side D).
- Green paint on the exterior wood window casing (Side D).
- Green paint on the exterior wood trim (Side C).

108 Henrietta Ln.
- Red paint on the interior porcelain bathroom tub (Side C).

Side A= Front side Side B = Right side Side C= Back side Side D= Left side

No lead-based paint was identified in the following structures:

- 82 Jacquelyn Dr.
- 354 Greentown Rd.
- 56 Jessica Dr.
- 42 Katherine Ct.
- 89 Katherine Ct.
- 238 Amelia Dr.

Some painted components tested exhibited a detectable concentration of lead, which may be applicable to the standards of the OHSA 29 CFR 1926.62 (Lead in Construction) depending upon the tasks impacting those painted surfaces.

1.0 Introduction

Georgetown County retained S&ME to conduct an asbestos and lead-based paint assessment for twelve abandoned residential structures located in Georgetown, South Carolina. The assessment was performed by Chandler McLelland, Bill Seaborn, and Josh Veloso of S&ME on December 5th through December 7th, 2022. An ACM is defined by State and Federal regulations as a building material containing greater than one percent (>1%) of one of the six asbestos minerals regulated by the EPA and the OSHA.

This asbestos and lead-based paint assessment was performed in general accordance with S&ME Proposal No. 22630177, dated September 29, 2022.

Demolition and renovation in public and commercial buildings are regulated by OSHA, EPA and SCDHEC. The EPA and SCDHEC require asbestos assessments, conducted by licensed individuals, prior to renovation and/or demolition projects. Code 40 of Federal Regulations Part 61, Subpart M, Final Rule, National Emissions Standards for Hazardous Air Pollutants (NESHAP) and SCDHEC require asbestos assessments, followed by the proper removal, and disposal of ACM that is affected by renovation or demolition. The identification of ACMs will aid in the prevention of occupational exposures and/or environmental releases of airborne asbestos. Identification of ACM is also required by OSHA 1926.1101. The EPA, OSHA and SCDHEC define ACM as materials containing greater than one (1) percent asbestos in a representative sample. However, OSHA also regulates materials containing less than or equal to one percent asbestos.

2.0 Site and Project Description

2.1 Purpose

The purpose of the assessment was to identify the presence of ACM and lead-based paint in the structures prior to future demolition activities. An assessment strategy believed by S&ME to be appropriate for this purpose was presented in our proposal and is described in this report. The report should be interpreted only with regard to the specific location and materials referenced.

2.2 Site Description

The twelve residential structures are vacant, dilapidated homes located in Georgetown County. The structures consisted of brick, vinyl, wood, and metal with asphalt shingle or metal roofing.

- 82 Jacquelyn Dr.
- 122 Jacquelyn Dr.
- 100 Gossett Ln.
- 354 Greentown Rd.
- 508 Greentown Rd.
- 20 Emily Ct.
- 431 Graves Station St.
- 56 Jessica Dr.

- 41 Katherine Ct.
- 89 Katherine Ct.
- 108 Henrietta Ln.
- 238 Amelia Dr.

3.0 Asbestos Assessment

3.1 Sampling and Analysis

A visual assessment of the structure was performed to determine the homogeneous areas (HAs) of suspect ACMs. Based on EPA definitions used in the Asbestos Hazard Emergency Response Act (AHERA), 40 CFR 763, an HA of asbestos-suspect building material has the same color and texture and is thought to be installed within the same timeframe. S&ME assessed the exterior structure for suspect ACMs, including thermal system insulation (TSI), surfacing materials, and miscellaneous materials. Representative samples of asbestos-suspect building materials were collected from each HA in accordance with the EPA's AHERA protocol and applicable State regulations.

Information regarding the bulk samples of each HA was collected, recorded on a chain of custody record, and submitted to CEI Labs, located in Cary, North Carolina for analysis by Polarized Light Microscopy (PLM), coupled with dispersion staining in general accordance with the EPA 600/R-93/116 Method , and for analysis by Transmission Electron Microscopy (TEM), if necessary for non-friable organically bound materials reported negative via PLM (one representative sample of the negative material). Laboratories used for sample analysis are accredited by the National Voluntary Laboratory Accreditation Program (NVLAP), which is administered by the National Institute of Standards and Technology (NIST). The laboratory analysis reports the specific type of asbestos mineral identified (if any) and the percentage of asbestos present in each sample.

Pursuant to the EPA NESHAP, samples containing less than ten percent asbestos must be considered an ACM unless follow-up analysis by the Point Count Method reports less than one percent asbestos. Samples analyzed by PLM and reported as "trace" or "less than one percent," can be further analyzed by the Point Count Method. Samples reported with a quantity less than one percent by the Point Count Method are not ACM and are not regulated by the EPA or SCDHEC; however, disturbance of materials containing less than one percent asbestos are regulated by OSHA in 29 CFR 1910.1101 to prevent worker exposure to asbestos.

Suspect non-friable, organically bound materials, exhibiting negative results by PLM analysis, were analyzed by trained microscopists using TEM. Typical examples of these materials include, but are not limited to; vinyl floor tile, mastics, vinyl sheet flooring, roof shingles, asphaltic roof materials, glazing, caulking, cove base mastic and other construction mastics/adhesives.

3.2 Assessment

Identified ACMs were assessed based on the observed condition (good, fair or poor) and potential for disturbance due to the scheduled renovation/demolition. Identified ACMs were also categorized based on the EPA's NESHAP regulation categories. Friable ACM is classified as an ACM that can be crumbled to a powder by moderate hand pressure. Non-friable ACM is classified as either Category I non-friable ACM or Category II non-friable ACM.

Category I and Category II non-friable ACM are distinguished from each other by their fiber release potential when damaged. Generally, Category I non-friable ACM, which by definition includes intact ACM roofing materials, gaskets, packing, and resilient floor coverings is less likely to become friable and release fibers in a damaged state. Category II non-friable ACM include all other non-friable ACM excluding Category I that have a high probability of being rendered friable during removal activities or demolition. All friable ACM, Category I non-friable ACM that has become friable, Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting or abrading, and Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations are considered to be a Regulated Asbestos-Containing Material (RACM).

3.3 Findings

The asbestos assessment conducted on December 5th through December 7th, 2022, included the bulk sampling and analysis of suspect ACMs from the subject structures. The suspect materials identified included:

- Ceiling Tile
- Floor Tile
- Plaster
- Cementitious Paneling
- Felt Paper
- Asphalt Shingle
- Roof/Chimney Mastic
- Sheet Flooring
- Drywall
- Joint Compound
- Window Glazing
- Ceiling Texture

Based on the results of the bulk samples collected and analyzed, ACM was detected in the following materials:

HA	Material Description	Location	Approximate Quantity	Condition/PD	Percent and Type Asbestos
122 Jacquelyn Dr.					
122-WG	Window Glazing	Exterior Widows	220 LF	Poor/High	2% Chrysotile
122-FT3	Floor Tile	Bathroom	110 SF	Poor/Low	5% Chrysotile

HA	Material Description	Location	Approximate Quantity	Condition/PD	Percent and Type Asbestos
354 Greentown Rd.					
354-CM	Cementitious Paneling	Exterior Siding	700 SF	Fair/Low	15% Chrysotile
508 Greentown Rd.					
508-FT	9x9 Floor Tile	Pink Bathroom	35 SF	Fair/Low	2% Chrysotile
508-JC	Joint Compound	Throughout House	3,200 SF	Fair/Low	2% Chrysotile
508-M	Mastic	Chimney	5 SF	Good/Low	Assumed
20 Emily Ct.					
20-CM	Cementitious Paneling	Exterior Siding	1,300 SF	Fair/Low	15% Chrysotile
20-RM	Mastic	Chimney	5 SF	Fair/Low	10% Chrysotile
20-JC	Joint Compound	Throughout House	>1,000 SF	Poor/High	2% Chrysotile
431 Graves Station St.					
431-CM	Cementitious Paneling	Exterior Siding	2,200 SF	Fair/Low	15% Chrysotile
431-SF1	Sheet Flooring (Blue)	Living Room	500 SF	Poor/Low	20% Chrysotile
431-JC	Joint Compound	Throughout House	>1,000 SF	Poor/High	2% Chrysotile
431-EM	Mastic	Siding of House (Arch Shaped)	10 SF	Fair/Low	10% Chrysotile
56 Jessica Dr.					
56-CM	Cementitious Paneling	Exterior Siding	1,500 SF	Fair/Low	15% Chrysotile
56-JC	Joint Compound	Throughout House	>1,000 SF	Poor/High	2% Chrysotile
56-SF3	Sheet Flooring (Green)	Right Bedroom	200 SF	Fair/Low	20% Chrysotile

HA	Material Description	Location	Approximate Quantity	Condition/PD	Percent and Type Asbestos
89 Katherine Ct.					
89-JC	Joint Compound	Throughout House	2,900 SF	Poor/High	2% Chrysotile
89-SF1	Sheet Flooring (Tan/Yellow, Pattern)	Kitchen	180 SF	Poor/Low	20% Chrysotile
89-SF2	Sheet Flooring (Tan/Brown, Pattern)	Kitchen	180 SF	Poor/Low	20% Chrysotile
89-SF3	Sheet Flooring (Brown, Pattern)	Right Bedroom and Bathroom	180 SF	Poor/Low	20% Chrysotile
89-SF4	Sheet Flooring (Tan, Pattern)	Right Bathroom on Wall	25 SF	Poor/Low	20% Chrysotile
89-SF5	Sheet Flooring (Brown, Uniform)	Den	180 SF	Poor/Low	20% Chrysotile
89-SF6	Sheet Flooring (Multi-color)	Den	180 SF	Poor/Low	20% Chrysotile

HA = Homogeneous Area SF = Square Feet LF = Linear Feet
*Note: The quantities are estimated and should be field verified for bidding purposes.

No asbestos in concentrations >1% was detected in the following structures:

- 82 Jacquelyn Dr.
- 100 Gossett Ln.
- 41 Katherine Ct.
- 108 Henrietta Ln.
- 238 Amelia Dr.

The summary of bulk asbestos results is provided in Appendix I. Representative photographs of site conditions and each homogeneous area are provided in Appendix II. A copy of the asbestos inspector's license is provided in Appendix III. The laboratory report and chain of custody records are provided in Appendix IV.

4.0 Lead-Based Paint Assessment

4.1 Investigative Procedures

The lead-based paint assessment was performed on representative exterior and interior painted components on the twelve residential structures. The painted components were analyzed utilizing a Heuresis X-Ray Fluorescence (XRF) portable analyzer (model #Pb200i, serial #1852). The suspect painted finishes were selected based on the

color of the topcoat and the underlying paint layers and/or the substrate on which it was applied. The possibility exists that lead-based paint finishes are present in those inaccessible areas such as wall voids, etc. SCDHEC defines a lead-based paint as any paint containing lead at concentrations equaling 0.7 mg/cm2 or greater by XRF testing. For the purpose of the assessment, paint containing 0.7 mg/cm2 or greater was considered lead-based paint due to the planned demolition activities. Lead-based paint, as defined by SCDHEC, on building components, requires disposal in a Class II or Class III lined landfill.

OSHA does not recognize a threshold level of lead for definition purposes, only the airborne concentration of lead a worker is exposed. The current OSHA regulations recognize an airborne action level of 30 micrograms per cubic meter (µg/m3) during an eight-hour day and a permissible exposure limit of 50 µg/m3.

4.2 Findings

Based on the assessment and testing performed on December 5th through December 7th, 2022, of the painted components associated with the twelve residential structures, lead concentrations applicable to SCDHEC and EPA disposal standards ($\geq$0.7 mg/cm^2) were identified in the following painted components:

122 Jacquelyn Dr.
- Yellow paint on the exterior wood window sash (Side A).
- Yellow paint on the exterior wood window casing (Side A).
- Green paint on the exterior wood shutter (Side A).
- Yellow paint on the exterior wood window casing (Side C).
- Yellow paint on the exterior wood trim (Side C).
- Yellow paint on the front porch metal support (Side A).
- Blue paint on the exterior wood door (Side C).

100 Gossett Ln.
- Black paint on the exterior wood window sash (Side B).

508 Greentown Rd.
- White paint on the exterior wood soffit (Side A).
- Green paint on the exterior wood ceiling (Side A).
- Blue paint on the interior ceramic bathroom wall (Side A).
- Blue paint on the interior ceramic bathroom tub (Side A).

20 Emily Ct.
- White paint on the exterior wood door (Side D).

431 Graves Station St.
- Green paint on the exterior wood door casing (Side D).
- Green paint on the exterior wood window casing (Side D).
- Green paint on the exterior wood trim (Side C).

108 Henrietta Ln.

- Red paint on the interior porcelain bathroom tub (Side C).

Side A= Front side Side B = Right side Side C= Back side Side D= Left side

Lead-based paint was not identified in the following structures:

- 82 Jacquelyn Dr.
- 354 Greentown Rd.
- 56 Jessica Dr.
- 42 Katherine Ct.
- 89 Katherine Ct.
- 238 Amelia Dr.

Some painted components tested exhibited a detectable concentration of lead, which may be applicable to the standards of the OHSA 29 CFR 1926.62 (Lead in Construction) depending upon the tasks impacting those painted surfaces.

The summary of XRF readings is provided in Appendix V and should be reviewed in full.

5.0 Conclusion and Recommendations

5.1 Asbestos

The asbestos assessment conducted on December 5th through December 7th, 2022, **did** identify the presence of ACM as described above. This report should be provided to the contractor(s) to assist with compliance and applicable State and Federal regulations.

SCDHEC requires proper removal and disposal of ACMs which will be disturbed by demolition or renovation activities. We recommend proper removal and disposal of the identified ACMs by a contractor licensed by SCDHEC, Asbestos Section, prior to the planned renovation activities. A copy of this assessment report must be submitted to SCDHEC, along with an application for asbestos removal and building renovation at least 10 working days prior to asbestos abatement activities. The required notification for asbestos removal may vary from four to 10 days depending on the quantity or type of ACM to be abated.

In accordance with SCDHEC regulation 61-86.1, project air monitoring must be performed by a SCDHEC licensed air sampler in conjunction with the removal of regulated asbestos materials (e.g. friable materials or non-friable materials rendered friable). SCDHEC also requires a written project design when 3,000 square feet (or greater) of regulated ACMs are removed from a structure.

5.2 Lead-Based Paint

The lead-based paint assessment conducted on December 5th through December 7th, 2022, **did** identify the presence of lead-based paint/glaze as described above.

Destructive actions (sanding, burning, demolition, component removal, paint preparation) to the painted surfaces will require the contractor to comply with the standards of OSHA, including but not limited to initial exposure monitoring, the use of personal protective equipment, and medical surveillance. Components painted with lead-based paint (> 0.7 mg/cm2) must be disposed in a SCDHEC permitted Class II (C&D) or Class III (Subtitle D, Municipal Solid Waste) landfill.

6.0 Assumptions and Limitations

This report is provided for the sole use of the Client. Use of this report by any other parties will be at such party's sole risk, and S&ME disclaims liability for any such use or reliance by third parties. The results presented in this report are indicative of conditions only during the time of the sampling period and of the specific areas referenced. Under no circumstances is this report to be used as a bidding document, or as a project design or specification.

S&ME performed the services in accordance with generally accepted practices of reputable environmental consultants undertaking similar studies at the same time and in the same geographical area. S&ME has endeavored to meet this standard of care. No other warranty, expressed or implied, is intended or made with respect to this report or S&ME's services. Users of this report should consider the scope and limitations related to these services when developing opinions as to risks associated with the site.

If additional suspect materials are discovered during the planned demolition activities, bulk samples must be collected by a licensed asbestos inspector and analyzed for asbestos content.