



**AHERA/NESHAP ASBESTOS PROJECT DESIGN
110 A STREET
GEORGETOWN, SC**

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*110 A Street
Georgetown, South Carolina 29440*

DATE OF DESIGN:

January 20, 2023

PREPARED BY:

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SC DHEC AHERA Asbestos Project Designer PD-00202, Exp: 4/5/23*

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SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*110 A Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for 110 A Street, located in Georgetown, South Carolina. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:

110 A Street, Georgetown, South Carolina

Consultant:

SUMMIT Engineering Laboratory & Testing, INC.

Julian Lago, Environmental Staff Professional

1539 Meeting Street - Suite A

Charleston, SC 29405

(843) 606-6268

SC DHEC AHERA Asbestos Project Designer No. PD-00202 Expiration Date: April 5, 2023

SC DHEC AHERA Asbestos Building Inspector No. BI-01697

SC DHEC AHERA Asbestos Management Planner No. MP-00262

SC DHEC AHERA Asbestos Air Sampler No. AS-00551

SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or serious injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:

City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:

110 A Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to renovation. Estimated quantities of ACM to be abated include:

Asbestos Abatement:

- **Approx. 500 SF of cementitious board siding (Class II – Non-Friable, Exterior)**

The project involves the removal and disposal of the above noted items.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The OWNER shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall ensure that all electrical cords are connected to GFI devices. Hoses and cords not suspended shall be taped to the floor utilizing caution tape in high traffic areas. The OWNER shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. **Location:**

110 A Street, Georgetown, South Carolina

Asbestos Abatement:

- **Approx. 500 SF of cementitious board siding (Class II – Non-Friable, Exterior)**

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating

- (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.
30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
 31. "EPA" - United States Environmental Protection Agency.
 32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
 33. "F/cc" - Fibers per cubic centimeter.
 34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
 35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
 36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
 37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
 38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
 39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
 40. "HVAC" - Heating, ventilation, and air conditioning.
 41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
 42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
 43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
 44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
 45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
 46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.

47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).
48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Exterior

PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by **SUMMIT** for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

The air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south and west).

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

- A. SIGNS
 1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA**
- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The OWNER shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

- A. Respirators
 - 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
 - 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
 - 3. All respirators must be NIOSH approved.
- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).
- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).
- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.
- E. Miscellaneous Equipment
 - 1. Low pressure sprayer for amended water applications.
 - 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.
 - 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
 - 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.
- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

A. Removal of ACM (Class II Work, Exterior).

The CONTRACTOR shall:

Remove the ACM in a non-friable manner. All ACM once removed shall be: thoroughly wet during stripping or removal and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry.

Assure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Assure that any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Air monitoring shall be performed during all abatement activities. Clearance shall consist of visual observation.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, rigid top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
110 A STREET
RESIDENTIAL PROPERTY**

CLIENT:

City of Georgetown
110 A Street
Georgetown, SC 29440

LOCATION:

*110 A Street
Georgetown, SC*

DATE OF INSPECTION:

September 27, 2022

DATE OF REPORT:

November 7, 2022

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
843-606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT
110 A Street, Georgetown, SC

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FIGURES

1.0 Site Location Map

LIST OF APPENDICES

A Analytical Results
B Asbestos Inspector’s License
C SUMMIT Documentation

1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at 843-606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Limited Asbestos Inspection Report*, was prepared for City of Georgetown, and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



11/7/2022

Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: November 16, 2022

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervision No. SA-03626
Expiration Date: December 9, 2022

2.0 EXECUTIVE SUMMARY

On September 27, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 110 A Street, Georgetown, South Carolina.

A one-story residential building exists at the site. The building is currently not occupied. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The purpose of this inspection was to investigate available records for the specification of asbestos containing material (ACM), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. Four (4) homogeneous areas were sampled. The homogeneous areas are described in detail in section 3.0 of this report.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TRAN2-1, 2 AND 3

The cementitious board siding was sampled from outside the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, 2 AND 3

The roofing material were sampled from outside the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.2 Cementitious Board

TRAN-1, 2 AND 3

The cementitious board was sampled from outside the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.3 Siding

TRAN2-1, 2 AND 3

The cementitious board siding was sampled from outside the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.4 Ceiling Texture

CTEX-1, 2 AND 3

The interior CMU skim coat was sampled from the walls within the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM (Y/N)	AMOUNT
ROOFING MATERIAL	N	1,000 SF
CEMENTITIOUS BOARD	N	250 SF
CEMENTITIOUS BOARD SIDING	Y	500 SF
CEILING TEXTURE	N	250 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On September 27, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Limited Asbestos Inspection for 110 A Street, Georgetown, South Carolina.

A one-story residential building exists at the site. The building is currently not occupied. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TRAN2-1, 2 AND 3

The cementitious board siding was sampled from outside the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied miscellaneous material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

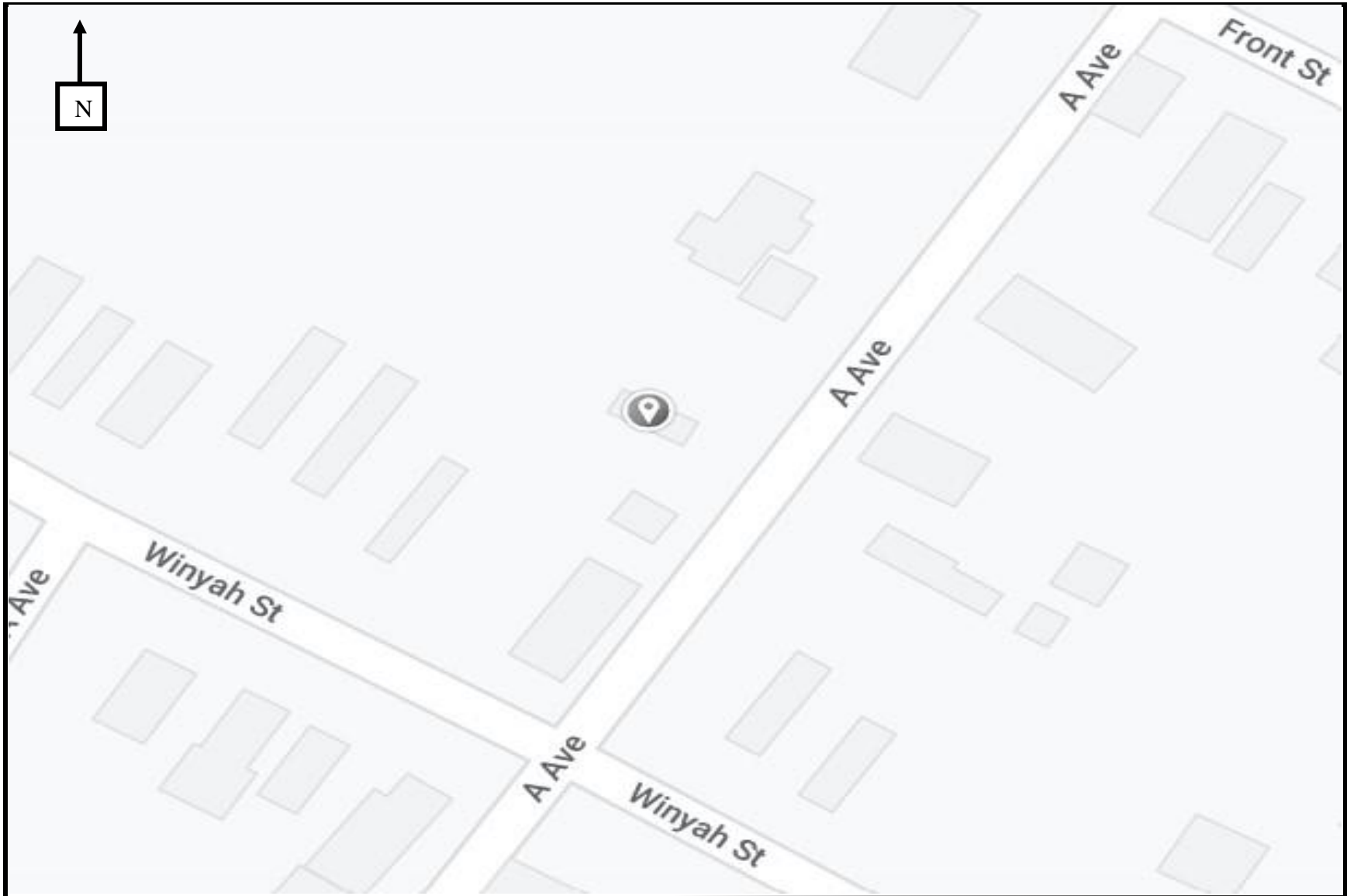


Figure 1
Site Location Map

110 A Street
Georgetown, South Carolina



SUMMIT ELT, Inc.
Project: 0069.E0001

APPENDIX A
ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: 110 A Street

Summit #: 2022-9-29-0069.E0001

Date Analyzed: 10/4/2022

Date Reported: 10/4/2022

Total Samples Analyzed: 17

Samples >1% Asbestos: 1

Method of Analysis: EPA 600/R-93/116/M4-82/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
 Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022

Date Analyzed: 10/4/2022

Date Reported: 10/4/2022

Project : 110 A Street

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1-Shingle 2022-9-29-0069.E0001-1	Roofing Material	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-1-Felt 2022-9-29-0069.E0001-1A	Roofing Material	Black, Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (other)	None Detected
RF-2-Shingle 2022-9-29-0069.E0001-2	Roofing Material	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2-Felt 2022-9-29-0069.E0001-2A	Roofing Material	Black, Brown Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (other)	None Detected
Tran-01-01 2022-9-29-0069.E0001-3	Cementitious Board	Beige Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
Tran-01-02 2022-9-29-0069.E0001-4	Cementitious Board	Beige Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
Tran-01-03 2022-9-29-0069.E0001-5	Cementitious Board	Beige Fibrous Homogeneous	20% Cellulose	80% Non-fibrous (other)	None Detected
Tran2-1 2022-9-29-0069.E0001-6	Transite Siding	Gray, Green Fibrous Homogeneous		80% Non-fibrous (other)	20% Chrysotile
Tran2-2 2022-9-29-0069.E0001-7	Transite Siding				Positive stop (not analyzed)
Tran2-3 2022-9-29-0069.E0001-8	Transite Siding				Positive stop (not analyzed)
Ctex-1-Texture 2022-9-29-0069.E0001-9	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-1-Wallboard 2022-9-29-0069.E0001-9A	Ceiling Texture	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
Ctex-1-Joint Compound 2022-9-29-0069.E0001-9B	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-2-Texture 2022-9-29-0069.E0001-10	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022
Date Analyzed: 10/4/2022
Date Reported: 10/4/2022

Project : 110 A Street

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous (other)	% Asbestos
Ctex-2-Wallboard 2022-9-29-0069.E0001-10A	Ceiling Texture	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
Ctex-2-Joint Compound 2022-9-29-0069.E0001-10A	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-3-Texture 2022-9-29-0069.E0001-11	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-3-Wallboard 2022-9-29-0069.E0001-11A	Ceiling Texture	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
Ctex-3-Joint Compound 2022-9-29-0069.E0001-11A	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



METHOD: EPA 600/R-93/116/M4-82/020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain of Custody.

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Analyst(s): 
Cass E. Rupert

Approved By: 
Maria Cao,
Approved Signatory

Summit Laboratories, 3575 Centre Circle, Fort Mill, SC 29715, Phone: (704) 504-1717



CHAIN OF CUSTODY

LAB USE ONLY:

Summit Order Number: 7022-9-29-0069, 00001

2520 Whitehall Park Rd – Suite 250,
 Charlotte, NC 28273
 Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION	
Company:	Job Contact: L. Smith/ A. Monk
Address:	Email: lsmith@summit-companies.org
	Tel:
	Fax:
Project Name: WEN. 110 A Street	State Collected In: SC
Project ID #: C069.E0001	

Bill to: Same Different – If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: Sent to CEI for TEM		<input checked="" type="checkbox"/>	Accept Samples
		<input type="checkbox"/>	Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
<i>L. Smith</i>	9.28.22	<i>F. E. ...</i>	9.28.22
			9/29/22

Samples will be disposed of 60 days after analysis

October 10, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: 110 A Street, 0069.E0001
LAB CODE: ST220253

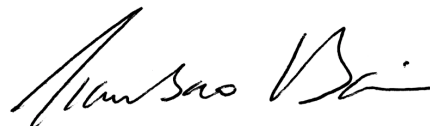
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on October 3, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: 110 A Street, 0069.E0001

LAB CODE: ST220253

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 10/10/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220253
Date Received: 10-03-22
Date Analyzed: 10-10-22
Date Reported: 10-10-22

Project: 110 A Street, 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST01823	Black Shingle	0.498	26.6	42.6	30.8	None Detected
RF-3 ST01824	Felt	0.2611	92.1	3.4	4.5	None Detected

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

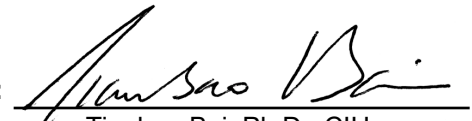
Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Eurofins CEI recommends between 0.500 and 0.200 grams of sample material. *Any weight below 0.100 grams is considered below protocol guidelines.*

ANALYST:


Brunilda Gjoka

APPROVED BY:


Tianbao Bai, Ph.D., CIH
Laboratory Director



Eurofins Built Environment CEI
 2752 Pleasant Road, Suite 100A
 Fort Mill, SC 29708
 Tel: 866-481-1412; Fax: 919-481-1442

CEI

CHAIN OF CUSTODY

2

LAB USE ONLY:

ECEI Lab Code: *ST720253*

ECEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Ce: Maria Cao
Company: Summit ELT	Email / Tel: mcao@summit-companies.com
Address: 3575 Centre Circle	Project Name: 110 A Street
	Project ID#: 0069.E0001
Email: envirolabs@summit-companies.com	PO #:
Tel: 704.504.1717 Fax:	STATE SAMPLES COLLECTED IN: SC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR (PCME)	ISO 10312	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	ASTM 6281-15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05 (2010)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM QUALITATIVE	IN-HOUSE METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS:

Please only analyze the layers listed on the COC
 Please CC: *envirolab@summit-companies.com* on the results

Accept Samples
 Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
<i>Matthew Sule</i>	10/3/2022	<i>CRS</i>	<i>10/3 11:40</i>

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
 Samples will be disposed of 30 days after analysis

Page _____ of _____

COMPANY CONTACT INFORMATION	
Company: Summit ELT, P.C.	Job Contact: Logan Smith/A. Monk
Project Name: 110 A Street	lsmith@summit-companies.com
Project ID #: 0069.E0001	Tel:

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
RF-3	black shingle and felt		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>

APPENDIX B
ASBESTOS LICENSES

SCDHEC ISSUED

Asbestos ID Card

Logan Smith



		Expiration Date:
AIRSAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

SCDHEC ISSUED

Asbestos ID Card

Jordan Suttles

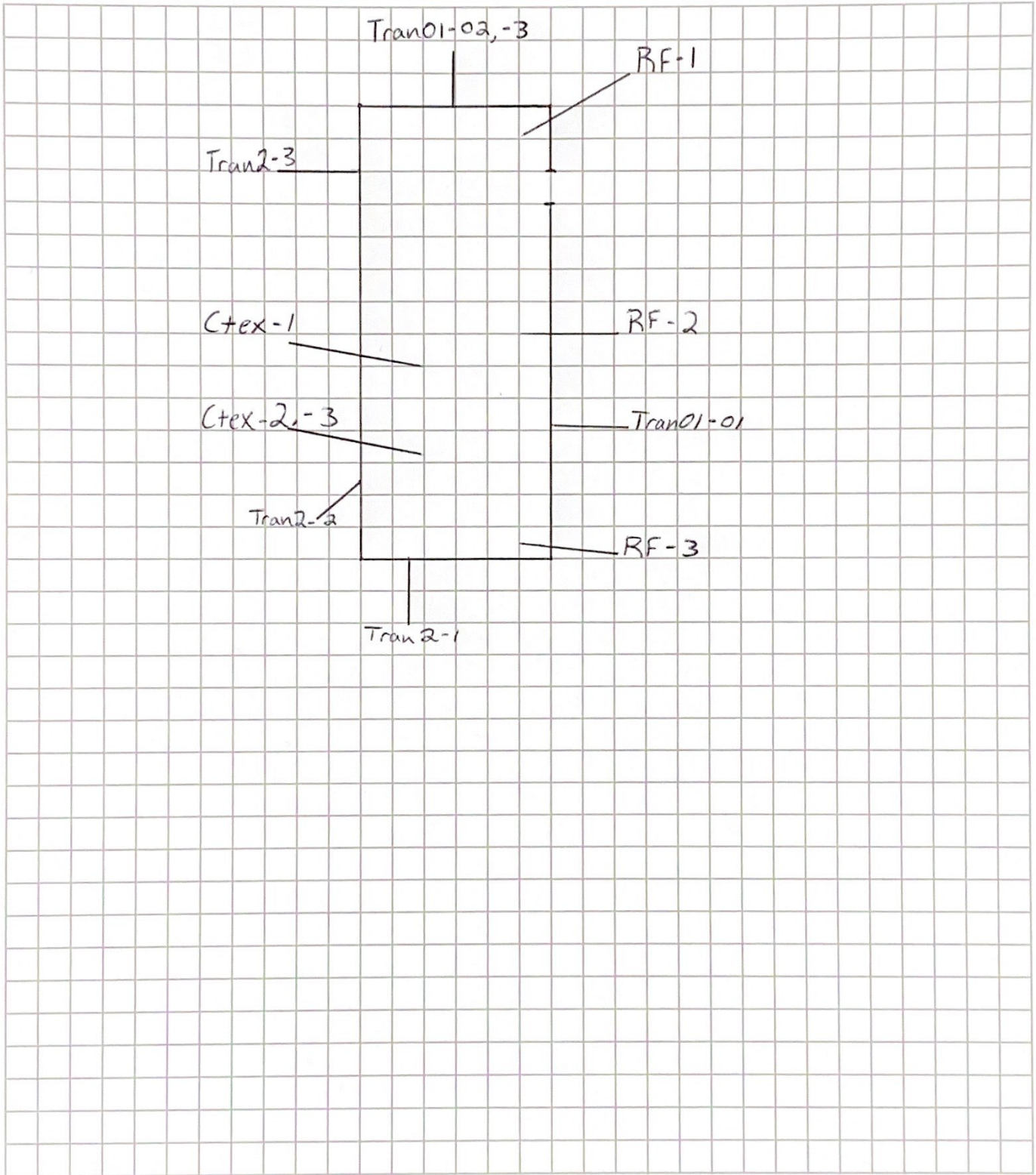


		Expiration Date:
AIRAMPLER	AS-000665	02/17/23
CONSULTBI	BI-002074	02/01/23
SUPERAMERA	SA-003673	02/17/23

APPENDIX C
SUMMIT DOCUMENTATION



PREPARED BY: LS	DATE: 9/27/22	CHECKED BY:	DATE:	PROJECT NO:
PROJECT NAME: West-End Demolition 110A Street				SHEET NO ___ OF ___





**AHERA/NESHAP ASBESTOS PROJECT DESIGN
2005 FRONT STREET
GEORGETOWN, SC**

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2005 Front Street
Georgetown, SC 29440*

DATE OF DESIGN:

January 20, 2023

PREPARED BY:

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202 Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2005 Front Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for City of Georgetown. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:

2005 Front Street, Georgetown, South Carolina

Consultant:

SUMMIT Engineering Laboratory & Testing, INC.
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268



David Lago, Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer No. PD-00202 – Expiration Date: April 5, 2023
SC DHEC AHERA Asbestos Building Inspector No. BI-01697
SC DHEC AHERA Asbestos Management Planner No. MP-00262
SC DHEC AHERA Asbestos Air Sampler No. AS-00551
SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or serious injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:

City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:

2005 Front Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials. Estimated quantities of ACM to be abated include:

- **Approximately 500 square feet of cementitious board siding, 900 square feet of wallboard/joint compound material, with asbestos contaminated building material is approximately 2,000 cubic feet of material.**

The project involves the removal and disposal of the above noted items.

Due to neglect, the structural components of the building appear to be unsound. Pending agreement and a granted variance by DHEC, the ACM shall be abated in place by means of demolition of the building while using the proper work methods. Wet methods shall be utilized heavily during removal to control emissions. The contaminated water used to control emissions must be contained, filtered through a 5-micron or less filter and properly disposed of into a sanitary sewer. Perimeter air monitoring must take place during abatement/demolition.

Roll off containers utilizing 2 layers of re-enforced polyethylene sheeting shall be used to store and transport all Asbestos Containing Materials. Polyethylene sheeting shall be installed in a manner in which the poly can be folded over from both sides and sealed along the top when the dumpster is full or at the end of each work day. Tops of containers must be completely covered and sealed using polyethylene sheeting at the end of each work day and prior to transport to the landfill. The CONTRACTOR shall be responsible for determining the appropriate number of roll-off containers. A PCM air clearance shall be performed after removal of all Asbestos Containing /Asbestos-Contaminated materials from the site.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The CONTRACTOR shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall coordinate the location and availability of utilities through the OWNER. The CONTRACTOR shall ensure that all electrical cords

are connected to GFI devices. The CONTRACTOR shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

- A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.
- B. Abatement Work
1. **Location:**
2005 Front Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to demolition. Estimated quantities of ACM to be abated include:

- **Approximately 500 square feet of cementitious board siding, 900 square feet of wallboard/joint compound material, with asbestos contaminated building material is approximately 2,000 cubic feet of material.**

Due to neglect, the structural components of the building appear to be unsound. Pending agreement and a granted variance by DHEC, the ACM shall be abated in place by means of demolition of the building while using the proper work methods. Wet methods shall be utilized heavily during removal to control emissions. The contaminated water used to control emissions must be contained, filtered through a 5-micron or less filter and properly disposed of into a sanitary sewer. Perimeter air monitoring must take place during abatement/demolition.

Roll off containers utilizing 2 layers of re-enforced polyethylene sheeting shall be used to store and transport all Asbestos Containing Materials. Polyethylene sheeting shall be installed in a manner in which the poly can be folded over from both sides and sealed along the top when the dumpster is full or at the end of each work day. Tops of containers must be completely covered and sealed using polyethylene sheeting at the end of each work day and prior to transport to the landfill. The CONTRACTOR shall be responsible for determining the appropriate number of roll-off containers. A PCM air clearance shall be performed after removal of all Asbestos Containing /Asbestos-Contaminated materials from the site.

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating

- (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.
30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
 31. "EPA" - United States Environmental Protection Agency.
 32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
 33. "F/cc" - Fibers per cubic centimeter.
 34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
 35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
 36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
 37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
 38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
 39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
 40. "HVAC" - Heating, ventilation, and air conditioning.
 41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
 42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
 43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
 44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
 45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
 46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.

47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).
48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and/or area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Exterior

PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by **SUMMIT** for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

The air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south and west).

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

- A. SIGNS
 1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA**
- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The CONTRACTOR shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

- A. Respirators
 - 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
 - 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
 - 3. All respirators must be NIOSH approved.
- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).
- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).
- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.
- E. Miscellaneous Equipment
 - 1. Low pressure sprayer for amended water applications.
 - 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.
 - 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
 - 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.
- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

A. Removal/demolition of the structure (Class I/II Work, Exterior):

The CONTRACTOR shall treat the entire structure as asbestos contaminated materials. All material shall be thoroughly wet during demolition activities and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry. The waste containers shall be lined with 6-mil polyethylene sheeting. Once the container is full, the ACM will be sealed inside the container with polyethylene sheeting. The waste containers shall be removed from the site for disposal at a licensed asbestos landfill. If the ACM roofing material cannot be removed from the site during the day it is generated, the site must be secured.

All water used for wetting the asbestos must be collected and filtered. The filter shall be a 5-micron filter. After filtration, the water shall be disposed of in a sanitary sewer.

Air monitoring shall be performed during all demolition activities. Clearance shall consist of visual clearance.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, open top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
2005 FRONT ST.
RESIDENTIAL PROPERTY**

CLIENT:

City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440

LOCATION:

2005 Front St.
Georgetown, SC

DATE OF INSPECTION:

September 27, 2022

DATE OF REPORT:

November 7, 2022

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
843-606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT
2005 Front St., Georgetown, SC

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1.0 Site Location Map

LIST OF APPENDICES

A Analytical Results
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C SUMMIT Documentation

1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at 843-606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown, and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



11/7/2022

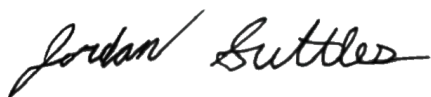
Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: November 16, 2022

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervisor No. SA-03626
Expiration Date: December 9, 2022



11/7/2022

Jordan Suttles

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-002074
Expiration Date: February 1, 2023

SC DHEC AHERA Asbestos Air Sampler No. AS-000665
Expiration Date: February 17, 2023

SC DHEC AHERA Asbestos Supervisor No. SA-003673
Expiration Date: February 17, 2023

2.0 EXECUTIVE SUMMARY

On September 27, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2005 Front St., Georgetown, South Carolina.

One (1) dilapidated residential structure. The building is currently not occupied. The structure and sections of the floor joists have collapsed. Based on the structural condition of the building, a hazard may be present for occupants. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is expected to be demolished.

A work practices variance may be required in order to abate the structure using alternate methods. The variance may be requested from SC DHEC by the abatement contractor to accomplish this. Additional requirements usually involve a letter of structural condemnation by an official, and an asbestos project design in order to abate using demo with RACM (Regulated Asbestos Containing Materials).

The purpose of this inspection was to investigate available records for the specification of asbestos containing material (ACM), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. Five (5) homogeneous areas were sampled. The homogeneous areas are described in detail in section 3.0 of this report.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 900 of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, 2 AND 3

The roofing material were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.2 Cementitious Board

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.3 Window Glaze

WG-1, 2 AND 3

The window glaze was sampled from the window on the exterior structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.4 Wallboard/Joint Compound

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 900 of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.5 Floor Tile

FT-1, 2 AND 3

The floor tile was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM (Y/N)	AMOUNT
ROOFING MATERIAL	N	1,000 SF
CEMENTITIOUS BOARD	Y	500 SF
WINDOW GLAZE	N	60 LF
WALLBOARD/JOINT COMPOUND	Y	900 SF
FLOOR TILE	N	500 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On September 27, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2005 Front St., Georgetown, South Carolina.

One (1) dilapidated residential structure. The building is currently not occupied. The structure and sections of the floor joists have collapsed. Based on the structural condition of the building, a hazard may be present for occupants. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is expected to be demolished.

A work practices variance may be required in order to abate the structure using alternate methods. The variance may be requested from SC DHEC by the abatement contractor to accomplish this. Additional requirements usually involve a letter of structural condemnation by an official, and an asbestos project design in order to abate using demo with RACM (Regulated Asbestos Containing Materials).

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 500 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 900 of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied miscellaneous material or other

miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

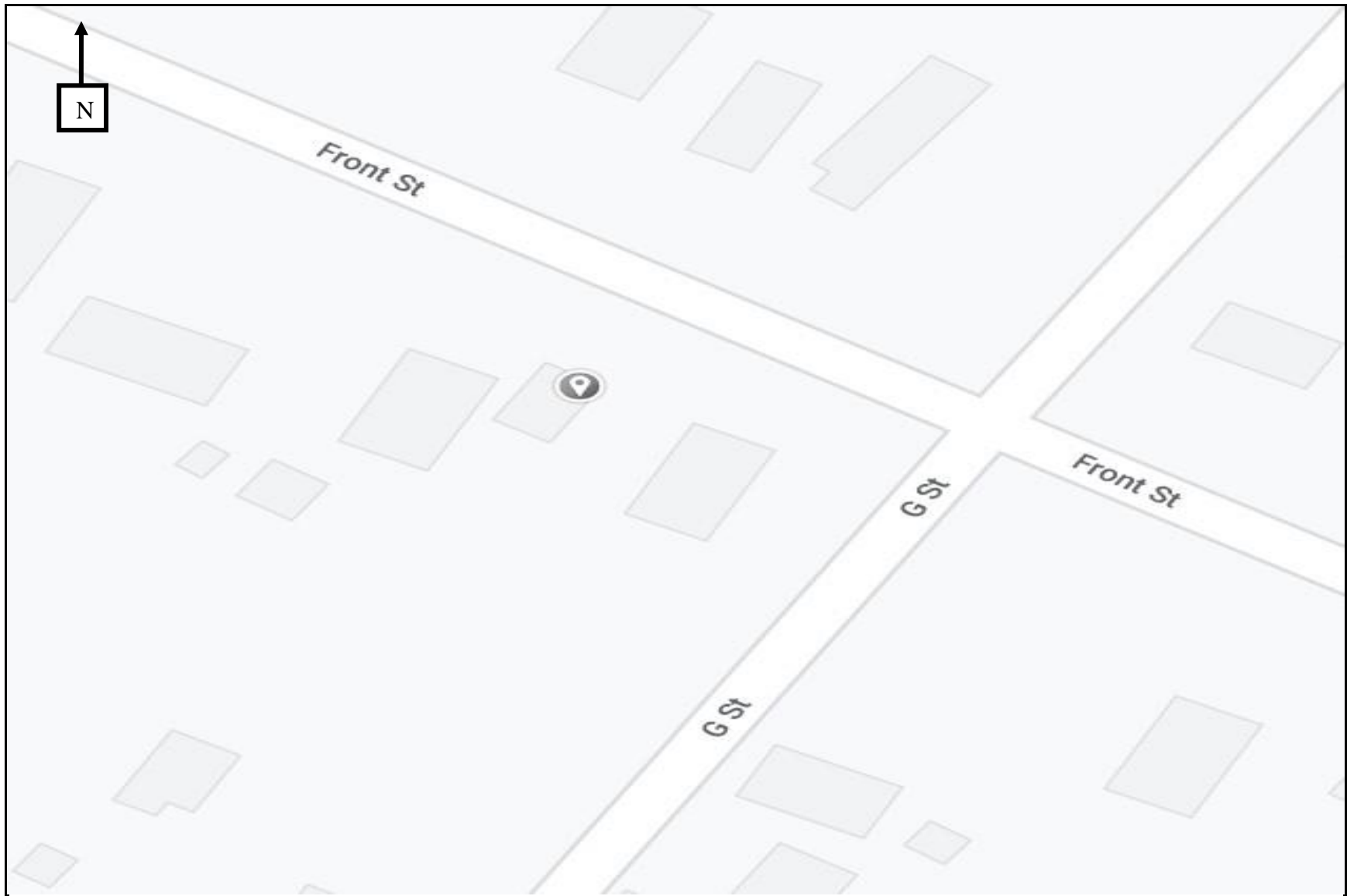


Figure 1
Site Location Map

2005 Front Street
Georgetown, South Carolina



SUMMIT ELT, Inc.
Project: 0069.E0001

APPENDIX A
ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: 2005 Front St.

Summit #: 2022-9-29-0069.E0001

Date Analyzed: 10/4/2022

Date Reported: 10/4/2022

Total Samples Analyzed: 11

Samples >1% Asbestos: 2

Method of Analysis: EPA 600/R-93/116/M4-82/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022
Date Analyzed: 10/4/2022
Date Reported: 10/4/2022

Project : 2005 Front St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1 2022-9-29-0069.E0001-1	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2 2022-9-29-0069.E0001-2	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
TR-1 2022-9-29-0069.E0001-3	Transite	White, Red Fibrous Homogeneous		80% Non-fibrous (other)	20% Chrysotile
TR-2 2022-9-29-0069.E0001-4	Transite				Positive stop (not analyzed)
TR-3 2022-9-29-0069.E0001-5	Transite				Positive stop (not analyzed)
WG-1 2022-9-29-0069.E0001-6	Window Glazing	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WG-2 2022-9-29-0069.E0001-7	Window Glazing	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-1-Wallboard 2022-9-29-0069.E0001-8	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-1-Joint Compound 2022-9-29-0069.E0001-8A	Wallboard and Joint Compound	Beige Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WB-2-Wallboard 2022-9-29-0069.E0001-9	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-2-Joint Compound 2022-9-29-0069.E0001-9A	Wallboard and Joint Compound				Positive stop (not analyzed)
WB-3-Wallboard 2022-9-29-0069.E0001-10	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-3-Joint Compound 2022-9-29-0069.E0001-10A	Wallboard and Joint Compound				Positive stop (not analyzed)
FT-1 2022-9-29-0069.E0001-11	Flooring	Red, Brown Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022
Date Analyzed: 10/4/2022
Date Reported: 10/4/2022

Project : 2005 Front St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
FT-2	Flooring	Red, Brown Fibrous	15% Cellulose	85% Non-fibrous (other)	None Detected
2022-9-29-0069.E0001-12		Homogeneous			



METHOD: EPA 600/R-93/116/M4-82/020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain of Custody.

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Analyst(s): 
Cass E. Rupert

Approved By: 
Maria Cao,
Approved Signatory

Summit Laboratories, 3575 Centre Circle, Fort Mill, SC 29715, Phone: (704) 504-1717



CHAIN OF CUSTODY

LAB USE ONLY:
Summit Order Number:

2520 Whitehall Park Rd – Suite 250,
 Charlotte, NC 28273
 Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION	
Company:	Job Contact: L. Smith/ A. Monk
Address:	Email: lsmith@summit-companies.org
	Tel:
	Fax:
Project Name: <i>W.E.N. - 2005 Front St.</i>	State Collected In: SC
Project ID #: <i>0069.E0001</i>	

Bill to: Same Different – If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

POSITIVE STOP ANALYSIS:

IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: *Send to CEI for TEM*

Accept Samples
 Reject Samples

Relinquished By:	Date/Time	Received By:	Date/Time
<i>L. Smith</i>	<i>9-28-22</i>	<i>Frd Ex</i>	<i>9-28-22</i>
		<i>[Signature]</i>	<i>9-29-22 12:30</i>

Samples will be disposed of 60 days after analysis

October 10, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: 2005 Front St, 0069.E0001
LAB CODE: ST220252

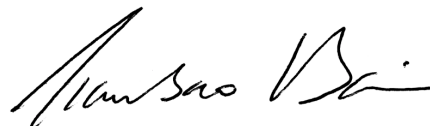
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on October 3, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: 2005 Front St, 0069.E0001

LAB CODE: ST220252

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 10/10/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220252
Date Received: 10-03-22
Date Analyzed: 10-10-22
Date Reported: 10-10-22

Project: 2005 Front St, 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST01835	Black Shingle	0.5655	15.7	31.8	52.5	None Detected
WG-3 ST01836	Window Glaze	0.3692	9	89.3	1.7	None Detected
FT-3 ST01837	Brown and Red Flooring	0.1243	72.6	26.2	1.2	<1% Chrysotile

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

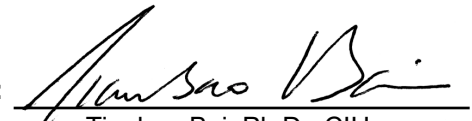
Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Eurofins CEI recommends between 0.500 and 0.200 grams of sample material. *Any weight below 0.100 grams is considered below protocol guidelines.*

ANALYST:


Brunilda Gjoka

APPROVED BY:


Tianbao Bai, Ph.D., CIH
Laboratory Director

CHAIN OF CUSTODY

(3)

LAB USE ONLY:
ECEI Lab Code: <i>ST 20252</i>
ECEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Ce: Maria Cao
Company: Summit ELT	Email / Tel: mcao@summit-companies.com
Address: 3575 Centre Circle	Project Name: 2005 Front St
	Project ID#: 0069.E0001
Email: envirolabs@summit-companies.com	PO #:
Tel: 704.504.1717 Fax:	STATE SAMPLES COLLECTED IN: SC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR (PCME)	ISO 10312	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	ASTM 6281-15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05 (2010)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM QUALITATIVE	IN-HOUSE METHOD		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS: Please only analyze the layers listed on the COC Please CC: <i>envirolab@summit-companies.com</i> on the results		<input checked="" type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<i>Matthew Sule</i>	10/3/2022	<i>CRS</i>
		10/3 11:40

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
Samples will be disposed of 30 days after analysis

COMPANY CONTACT INFORMATION	
Company: Summit ELT, P.C.	Job Contact: Logan Smith/A. Monk
Project Name: 2005 Front St.	lsmith@summit-companies.com
Project ID #: 0069.E0001	Tel:

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
			PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
RF-3	black shingle		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
WG-3	window glaze		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
FT-3	brown and red flooring		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>

APPENDIX B
ASBESTOS LICENSES

SCDHEC ISSUED

Asbestos ID Card

Logan Smith



		Expiration Date:
AIRSAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

SCDHEC ISSUED

Asbestos ID Card

Jordan Suttles

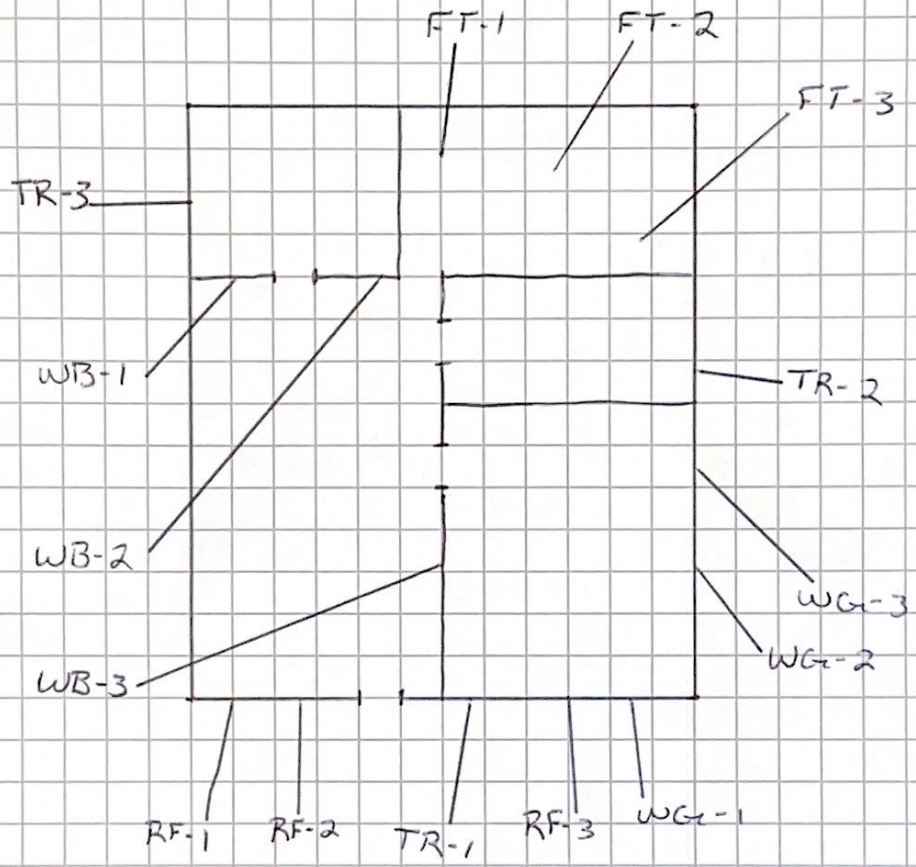


		Expiration Date:
AIRAMPLER	AS-000665	02/17/23
CONSULTBI	BI-002074	02/01/23
SUPERAMERA	SA-003673	02/17/23

APPENDIX C
SUMMIT DOCUMENTATION



PREPARED BY: <i>[Signature]</i>	DATE: 10.28.22	CHECKED BY:	DATE:	PROJECT NO: 0069.E0001
PROJECT NAME: West-End Demolition 2005 Front Street				SHEET NO __ OF __





AHERA/NESHAP ASBESTOS PROJECT DESIGN
2011 GILBERT STREET
GEORGETOWN, SC

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2011 Gilbert Street
Georgetown, South Carolina 29440*

DATE OF DESIGN:

January 23, 2023

PREPARED BY:

Julian P. Lago

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202, Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2011 Gilbert Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for 2011 Gilbert Street, located in Georgetown, South Carolina. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:
2011 Gilbert Street, Georgetown, South Carolina

Consultant:
SUMMIT Engineering Laboratory & Testing, INC.
Julian Lago, Environmental Staff Professional
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268
SC DHEC AHERA Asbestos Project Designer No. PD-00202 Expiration Date: April 5, 2023
SC DHEC AHERA Asbestos Building Inspector No. BI-01697
SC DHEC AHERA Asbestos Management Planner No. MP-00262
SC DHEC AHERA Asbestos Air Sampler No. AS-00551
SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state, and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or severe injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:
City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:
2011 Gilbert Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to renovation. Estimated quantities of ACM to be abated include:

Asbestos Abatement:

- Approx. 2,500 SF of wallboard/joint compound (Class I - Friable, Interior)

The project involves the removal and disposal of the above noted items.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The OWNER shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall ensure that all electrical cords are connected to GFI devices. Hoses and cords not suspended shall be taped to the floor utilizing caution tape in high traffic areas. The OWNER shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. Location:
2011 Gilbert Street, Georgetown, South Carolina

Asbestos Abatement:

- Approx. 2,500 SF of wallboard/joint compound (Class I - Friable, Interior)

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.

30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
31. "EPA" - United States Environmental Protection Agency.
32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
33. "F/cc" - Fibers per cubic centimeter.
34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
40. "HVAC" - Heating, ventilation, and air conditioning.
41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.
47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).

48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager, and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours, and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

In each homogeneous Work Area or as required by the CONSULTANT, a minimum of five (5) PCM samples will be taken and analyzed as a baseline prior to the CONTRACTOR's mobilization to the site. PCM air samples both inside and outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria. If baseline samples cannot be collected for any reason, they will be assumed to be Zero (0).

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Inside Work Area (Initial Baseline)	5	1,200	Mixed Cellulose Ester
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester
Inside Work Area (Clearance)	5	1,200	Mixed Cellulose Ester

Clearance sampling, as detailed in AHERA consists of: five (5) clearance samples inside the work area plus one (1) field blank inside the work area; five (5) clearance samples outside the work area plus one (1) field blank outside the work area; plus, one (1) trip blank.

Clearance samples outside the work area and the field blank sample outside the work area will not be collected and will be assumed to be Zero (0). The trip blank sample will also be assumed to be Zero (0).

Clearance samples shall be by PCM analysis and verbal results will be available within 24 hours of completion of clearance sampling. Upon completion of the project, CONSULTANT will provide OWNER and CONTRACTOR a written report detailing the air sampling results. The written report will be available within five (5) business days.

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Release Criteria: Decontamination of the project is complete as determined by the analytical protocol if each of the Work Area samples is below 0.01 fibers/cubic centimeter or (f/cc) 70 (structures) f/mm² (if TEM analysis is required). If the analysis of the Work Area samples fails to meet the release criteria, then the CONTRACTOR must cease demolition activities and reassess their abatement to bring the fiber count to below 0.01 f/cc or 70 structures/mm².

The CONTRACTOR is cautioned, however, that should interpretations be made, opinions be formed and conclusions be drawn as a result of examining the test results, these interpretations, opinions and conclusions will be those made, formed and drawn solely by the CONTRACTOR. The CONTRACTOR is responsible for performing air tests required for its evaluation of the safety of its employees.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

A. SIGNS

1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The OWNER shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

- A. Respirators
 - 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
 - 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
 - 3. All respirators must be NIOSH approved.
- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).
- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).
- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.
- E. Miscellaneous Equipment
 - 1. Low pressure sprayer for amended water applications.
 - 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.
 - 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
 - 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.
- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

- A. Removal of ACM utilizing Enclosures (Class I Work, Interior, Full Containment).

The CONTRACTOR shall:

Seal each opening between the work area and uncontaminated areas including windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grills, grates, diffusers, and skylights with a critical barrier consisting of at least two independent sheets of 6-mil or thicker polyethylene sheeting secured in place. These critical barriers must be maintained leak-tight for the duration of asbestos abatement.

Thoroughly clean and remove all movable objects from the work area.

Thoroughly clean, then cover and secure each non-movable object in the work area with at least one sheet of 4-mil or thicker polyethylene sheeting.

Use polyethylene sheeting to isolate contaminated from uncontaminated areas, and ensure the sheeting is attached securely in place and properly maintained at all times.

Prevent contamination of carpet with ACM, or dispose of the carpet as asbestos-contaminated waste.

Cover floors not being abated with at least two layers of 6-mil or thicker polyethylene sheeting. Floor sheeting shall be installed first and shall extend at least 12 inches up the walls and be taped into place. No seams shall be located at wall/floor joints. Spray-applied polyethylene coating shall not be used.

Cover walls and ceilings not being abated with at least one sheet of 4-mil or thicker polyethylene sheeting. Wall sheeting shall be installed to minimize joints and shall extend at least six inches beyond wall/floor joint and be taped into place. Ceiling sheeting shall extend at least 12 inches down the wall and be sized and taped into place. No seams shall be located at wall/ceiling or wall/wall joints.

Construct a decontamination enclosure system adjoining the contained work area. The decontamination enclosure shall be built in a manner that will prevent track-out of RACM, and shall consist of: a clean room equipped with appropriate storage containers and adequate space for changing clothing; an air lock; a shower room containing hot and cold or warm running water controllable at the tap; and an equipment room suitable for storage of tools and equipment.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Construct a clear viewing port measuring at least 24 inches by 24 inches in an external wall of the contained work area to allow unobstructed observation of abatement activities in the work area.

Operate negative pressure differential equipment with HEPA filtration continuously from the time that barrier construction is completed through the time that acceptable final clearance air monitoring results are obtained.

Provide the appropriate number of negative air machines to exchange the air inside the containment 4 times per hour and to maintain a minimum of -0.02 column inches of water pressure differential, relative to pressure outside of the containment, as verified and recorded by a manometer.

Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.

Prior to removal, all RACM is thoroughly wet through to the substrate using amended water and shall remain wet until disposed of in accordance with 40 CFR 61.150, as amended, and any subsequent amendments and editions.

Carefully lower RACM to the ground or floor, not dropped or thrown; and at no time shall RACM be allowed to accumulate or become dry.

Polyethylene bags of at least 6-mil thickness shall be used for waste, bags shall be leak-tight. Excess air (gooseneck) shall be removed from bags prior to sealing using a vacuum equipped with a HEPA filtration system in accordance with OSHA regulation 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Following abatement, a visual inspection of the abated substrate is performed. Upon passing the visual inspection, a coating of a compatible encapsulating agent is applied to porous surfaces that have been stripped and cleaned of ACM. The encapsulant must be allowed to thoroughly dry prior to additional cleaning or final air clearance.

If there is any evidence of contamination, the CONTRACTOR shall perform additional wet cleaning and HEPA vacuuming.

All polyethylene sheeting, except for critical barriers and the decontamination enclosure system, is removed and disposed of as asbestos-contaminated waste.

With only the critical barriers and decontamination enclosure system left in place, the entire work area, including any duct work, is wet-cleaned and HEPA vacuumed until no visible residue remains.

Daily air monitoring and clearances shall be performed.

Areas exceeding clearance standards are re-cleaned by the contractor using wet methods and HEPA vacuuming. Re-cleaning, drying, and retesting shall be repeated until the satisfactory clearance standard is achieved. The CONTRACTOR shall bear the costs of additional clearance testing.

Following satisfactory clearance of the work area, remaining polyethylene critical barriers and decontamination enclosure systems are removed and disposed of as asbestos-contaminated waste.

The CONTRACTOR may choose to remove any other Class II friable or non-friable ACM (flooring, mastic and carpets) inside the Class I containment as friable.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, rigid top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
2011 GILBERT STREET
GEORGETOWN, SC**

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2011 Gilbert Street
Georgetown, SC 29440*

DATE(S) OF INSPECTION:

December 14, 2022

DATE OF REPORT:

January 18, 2023

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory and Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, South Carolina 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT

**2011 Gilbert Street
Georgetown, SC**

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1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at (843) 606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



1/18/2023

Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: December 2, 2023

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervision No. SA-03626
Expiration Date: December 1, 2023

2.0 EXECUTIVE SUMMARY

On December 14, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2011 Gilbert Street, located in Georgetown, South Carolina.

One (1) single story residential structure exists at the site address. The structure is currently vacant. The structure is intended to be demolished.

The purpose of this inspection was to investigate available records for the specification of ACM (Asbestos Containing Materials), inspect for suspect materials, sample and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. There were approximately five (5) homogeneous suspect materials observed on the structure. The homogeneous areas are described in detail in section 3.0 of this report.

The following materials sampled were found to be Asbestos Containing Materials (ACMs):

WB-1 THROUGH WB-5

The wallboard/joint compound is located throughout the structure. The material is currently in good condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,500 LF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, RF-2 AND RF-3

The roofing material is located on the exterior of the structure. The material is currently in good condition and is non-friable with a low potential for damage. The material was sampled and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in SUMMIT Documentation.

3.2 Window Glazing

WG-1, WG-2 AND WG-3

The window glazing is located on the exterior of the structure. The material is currently in good condition and is non-friable with a low potential for damage. . The material was sampled and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.3 Brick/Mortar

BM-1, BM-2 AND BM-3

The brick/mortar is located on the exterior of the structure. The material is currently in damaged condition and is non-friable with a low potential for damage. The material was sampled and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.4 Wallboard System

WB-1 THROUGH WB-5

The wallboard/joint compound is located throughout the structure. The material is currently in good condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,500 LF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.5 Flooring

FL-1, FL-2 AND FL-3

The sheet flooring is located in a portion of the structure. The material is currently in good condition and is non-friable with a low potential for damage. The material was sampled and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM? ¹ (Y/N)	APPROXIMATE QUANTITY ²
ROOFING MATERIAL	N	1,500 SF
WINDOW GLAZING	N	80 LF
BRICK AND MORTAR	N	350 CF
WALLBOARD/JOINT COMPOUND	Y	2,500 SF
FLOORING	N	1,500 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On December 14, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2011 Gilbert Street, located in Georgetown, South Carolina.

One (1) single story residential structure exists at the site address. The structure is currently vacant. The structure is intended to be demolished.

The following materials sampled were found to be Asbestos Containing Materials (ACMs):

WB-1 THROUGH WB-5

The wallboard/joint compound is located throughout the structure. The material is currently in good condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,500 LF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied surfacing material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES



Figure 1
Site Location Map

2011 Gilbert Street
Georgetown, SC



SUMMIT ELT, INC

Project: 0069.E0001

APPENDIX A

ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: West-End Neighborhood Demo - 2011 Gilbert St.

Summit #: 2022-12-19-0069.E0001

Date Analyzed: 12/20/2022

Date Reported: 12/20/2022

Total Samples Analyzed: 23

Samples >1% Asbestos: 1

Method of Analysis: EPA 600 / R93 / 116 / M4-082/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-12-19-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 12/19/2022
Date Analyzed: 12/20/2022
Date Reported: 12/20/2022

Project : West-End Neighborhood Demo - 2011 Gilbert St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1 2022-12-19-0069.E0001-1	Roofing Material	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2 2022-12-19-0069.E0001-2	Roofing Material	Black Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
WG-1 2022-12-19-0069.E0001-3	Window Glaze	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WG-2 2022-12-19-0069.E0001-4	Window Glaze	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Brick 2022-12-19-0069.E0001-5	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Mortar 2022-12-19-0069.E0001-5A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Brick 2022-12-19-0069.E0001-6	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Mortar 2022-12-19-0069.E0001-6A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Brick 2022-12-19-0069.E0001-7	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Mortar 2022-12-19-0069.E0001-7A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-1-Wallboard 2022-12-19-0069.E0001-8	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-1-White Joint Compound 2022-12-19-0069.E0001-8A	Wallboard and Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-1-Beige Joint Compound 2022-12-19-0069.E0001-8B	Wallboard and Joint Compound	Beige Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WB-2-Wallboard 2022-12-19-0069.E0001-9	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-12-19-0069.E0001
 Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 12/19/2022

Date Analyzed: 12/20/2022

Date Reported: 12/20/2022

Project : West-End Neighborhood Demo - 2011 Gilbert St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	% Fibrous	Non-Asbestos	Asbestos
				% Non-Fibrous (other)	% Asbestos
WB-2-White Joint Compound	Wallboard and Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-9A					
WB-2-Beige Joint Compound	Wallboard and Joint Compound				Positive stop (not analyzed)
2022-12-19-0069.E0001-9B					
WB-3-Wallboard	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-10					
WB-3-White Joint Compound	Wallboard and Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-10A					
WB-3-Beige Joint Compound	Wallboard and Joint Compound				Positive stop (not analyzed)
2022-12-19-0069.E0001-10B					
WB-4-Wallboard	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-11					
WB-4-White Joint Compound	Wallboard and Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-11A					
WB-4-Beige Joint Compound	Wallboard and Joint Compound				Positive stop (not analyzed)
2022-12-19-0069.E0001-11B					
WB-5-Wallboard	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-12					
WB-5-White Joint Compound	Wallboard and Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-12A					
WB-5-Beige Joint Compound	Wallboard and Joint Compound				Positive stop (not analyzed)
2022-12-19-0069.E0001-12B					
FL-1	Flooring	Beige, Gray, Green Fibrous Homogeneous	15% Cellulose	85% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-13					



Summit Laboratories

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Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
FL-2	Flooring	Beige, Gray, Green Fibrous	15% Cellulose	85% Non-fibrous (other)	None Detected
2022-12-19-0069.E0001-14		Homogeneous			




METHOD: EPA 600 / R93 / 116 /M4-082 / 020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain

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Analysis is determined by Calibrated Visual Estimate (CVE).
Temperature at the time of analysis (°C) : 24
(Refractive index is adjusted according to temperature)

Analyst(s): 
Cass E. Rupert

Approved By: 
Michael Zavislak
Approved Signatory

UES Laboratories, 2520 Whitehall Park Dr. Ste. 250, Charlotte, NC Phone: (704) 504-1717



CHAIN OF CUSTODY

LAB USE ONLY:

Summit Order Number: 2022-12-19-0769-E0001

3575 Centre Circle, Fort Mill, SC 29715

Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION

Company: Summit ELT - Charleston	Job Contact: L. Smith/ A. Monk
Address: 1539 Meeting Street - Suite A Charleston, SC 29405	Email: Lsmith@summit-companies.com Amonk@summit-companies.com
	Tel:
Project Name: West-End Neighborhood Demo-2011 Gilbert St.	Fax:
Project ID #: 0069.E0001	State Collected In: SC

Bill to: Same Different - If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: Pre-analyze TEMs and send to lab for 5 day analysis.		<input checked="" type="checkbox"/> Accept Samples	<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
	12/19/22		12/19/22 0945

Samples will be disposed of 60 days after analysis

December 28, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: West-End Neighborhood Demo - 2011 Gilbert St., 0069.E0001
LAB CODE: ST220461

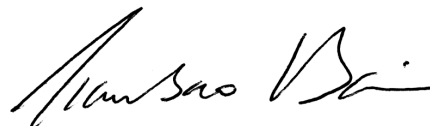
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on December 19, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: West-End Neighborhood Demo - 2011 Gilbert St., 0069.
E0001

LAB CODE: ST220461

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 12/28/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220461
Date Received: 12-19-22
Date Analyzed: 12-28-22
Date Reported: 12-28-22

Project: West-End Neighborhood Demo - 2011 Gilbert St., 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST03168	Black Roofing Material (Shingle)	0.138	34	49.6	16.4	None Detected
WG-3 ST03169	Off-White Window Glazing	0.2359	8.8	90.7	.5	None Detected
FL-3 ST03170	White,Green Flooring	0.0275	81.1	16.7	2.2	None Detected

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI (ECEI). ECEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request and in compliance with regulatory requirements.* Samples were received in acceptable condition unless otherwise noted.

Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

ECEI recommends between 0.20 and 0.50 grams of sample material for TEM bulk analysis.

Any weight below 0.10 grams is considered below protocol guidelines.

***Indicates sample weight below 0.05 grams and is considered insufficient for quantitative analysis.*

ANALYST:


Adrian Meyer

APPROVED BY:


Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

Du 12/28/22 5:00pm (3)

CHAIN OF CUSTODY

2752 Pleasant Rd. Suite 100A Fort Mill, SC 29708
 Tel: 803-526-5146; Fax: 919-481-1442

ECEI Lab Code: 57 220461

ECEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Job Contact: Logan Smith / Tony Monk
Company: SUMMIT Engineering, Laboratory & Testing, Inc.	Email / Tel: LSmith@summit-companies.com / AMonk@summit-companies.com
Address: 3575 Centre Circle	Project Name: <u>West-End neighborhood demo - 2011 Gilbert St.</u>
Fort Mill, NC 29715	Project ID#: <u>CC09. E0001</u>
mcao@summit-companies.com; mzavislak@summit-companies.com; Billing Email: crupert@summit-companies.com; envirolab@summit-companies.com;	PO #:
Tel: 803-238-1080	State of sample origin SC

ECEI standard terms are Net 30 days

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM INSTRUCTIONS							
Begin TEM Analysis After Negative PLM		<input type="checkbox"/>					
Analyze TEM Samples Simultaneously with PLM		<input type="checkbox"/>					

REMARKS / SPECIAL INSTRUCTIONS:		<input checked="" type="checkbox"/> Accept Samples
		<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<u>C. Rupert</u>	12/19/2022	<u>Smith</u>
		12/19 1:20 pm

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
 Samples will be disposed of 30 days after analysis

APPENDIX B

INSPECTOR'S LICENSES

SCDHEC ISSUED

Asbestos ID Card

Logan Smith



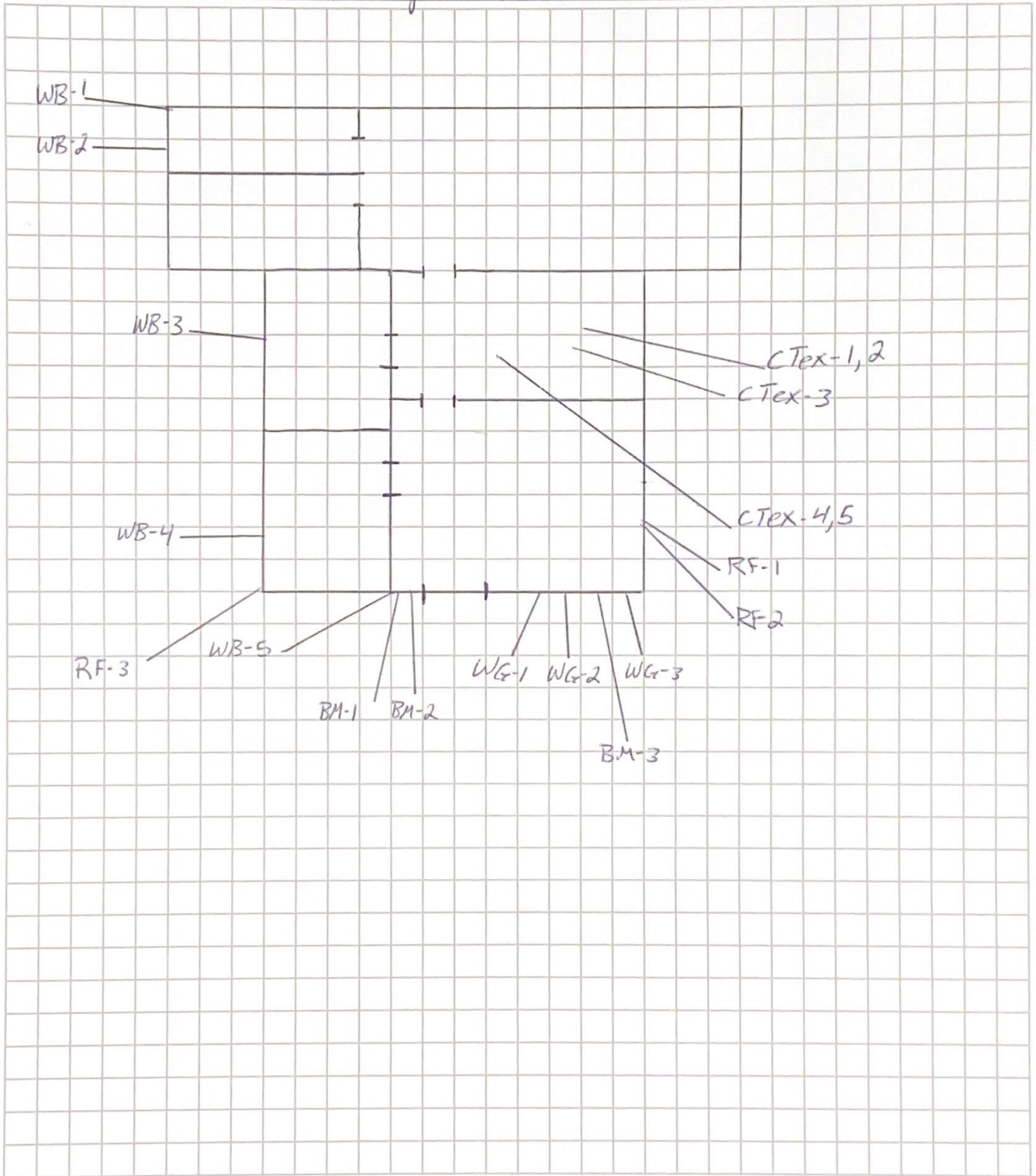
		Expiration Date:
AIRAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

APPENDIX C

SUMMIT DOCUMENTATION



PREPARED BY: <i>LJ</i>	DATE: 1.10.23	CHECKED BY:	DATE:	PROJECT NO: 0069.E0001
PROJECT NAME: West-End Neighborhood Demo - 2006 Front St.				SHEET NO ___ OF ___







AHERA/NESHAP ASBESTOS PROJECT DESIGN
2023 EMANUAL STREET
GEORGETOWN, SC

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2023 Emanuel Street
Georgetown, South Carolina 29440*

DATE OF DESIGN:

February 13, 2023

PREPARED BY:

Julian P. Lago

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202, Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2023 Emanuel Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for 2023 Emanuel Street, located in Georgetown, South Carolina. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:
2023 Emanuel Street, Georgetown, South Carolina

Consultant:
SUMMIT Engineering Laboratory & Testing, INC.
Julian Lago, Environmental Staff Professional
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268
SC DHEC AHERA Asbestos Project Designer No. PD-00202 Expiration Date: April 5, 2023
SC DHEC AHERA Asbestos Building Inspector No. BI-01697
SC DHEC AHERA Asbestos Management Planner No. MP-00262
SC DHEC AHERA Asbestos Air Sampler No. AS-00551
SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state, and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or severe injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:
City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:
2023 Emanuel Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to renovation. Estimated quantities of ACM to be abated include:

Asbestos Abatement:

- Approx. 600 SF of ceiling texture (Class I - Friable, Interior)
- Approx. 975 SF of drywall/joint compound (Class I - Friable, Interior)
- Approx. 1,200 SF of cementitious board siding (Class II – Non-Friable, Exterior)

The project involves the removal and disposal of the above noted items.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The OWNER shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall ensure that all electrical cords are connected to GFI devices. Hoses and cords not suspended shall be taped to the floor utilizing caution tape in high traffic areas. The OWNER shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. Location:
2023 Emanuel Street, Georgetown, South Carolina

Asbestos Abatement:

- Approx. 600 SF of ceiling texture (Class I - Friable, Interior)
- Approx. 975 SF of drywall/joint compound (Class I - Friable, Interior)
- Approx. 1,200 SF of cementitious board siding (Class II – Non-Friable, Exterior)

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.

30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
31. "EPA" - United States Environmental Protection Agency.
32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
33. "F/cc" - Fibers per cubic centimeter.
34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
40. "HVAC" - Heating, ventilation, and air conditioning.
41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.
47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).

48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager, and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours, and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Interior

In each homogeneous Work Area or as required by the CONSULTANT, a minimum of five (5) PCM samples will be taken and analyzed as a baseline prior to the CONTRACTOR's mobilization to the site. PCM air samples both inside and outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria. If baseline samples cannot be collected for any reason, they will be assumed to be Zero (0).

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Inside Work Area (Initial Baseline)	5	1,200	Mixed Cellulose Ester
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester
Inside Work Area (Clearance)	5	1,200	Mixed Cellulose Ester

Clearance sampling, as detailed in AHERA consists of: five (5) clearance samples inside the work area plus one (1) field blank inside the work area; five (5) clearance samples outside the work area plus one (1) field blank outside the work area; plus, one (1) trip blank.

Clearance samples outside the work area and the field blank sample outside the work area will not be collected and will be assumed to be Zero (0). The trip blank sample will also be assumed to be Zero (0).

Clearance samples shall be by PCM analysis and verbal results will be available within 24 hours of completion of clearance sampling. Upon completion of the project, CONSULTANT will provide OWNER and CONTRACTOR a written report detailing the air sampling results. The written report will be available within five (5) business days.

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Release Criteria: Decontamination of the project is complete as determined by the analytical protocol if each of the Work Area samples is below 0.01 fibers/cubic centimeter or (f/cc) 70 (structures) f/mm² (if TEM analysis is required). If the analysis of the Work Area samples fails to meet the release criteria, then the CONTRACTOR must cease demolition activities and reassess their abatement to bring the fiber count to below 0.01 f/cc or 70 structures/mm².

The CONTRACTOR is cautioned, however, that should interpretations be made, opinions be formed and conclusions be drawn as a result of examining the test results, these interpretations, opinions and conclusions will be those made, formed and drawn solely by the CONTRACTOR. The CONTRACTOR is responsible for performing air tests required for its evaluation of the safety of its employees.

2. Exterior

PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

Exterior air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south, and west).

Visual clearance of the exterior of the structure shall be performed upon completion of the removal.

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

A. SIGNS

1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The OWNER shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

A. Respirators

1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
3. All respirators must be NIOSH approved.

- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).

- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).

- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.

E. Miscellaneous Equipment

1. Low pressure sprayer for amended water applications.
2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.

1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.

- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

- A. Removal of ACM utilizing Enclosures (Class I Work, Interior, Full Containment).

The CONTRACTOR shall:

Seal each opening between the work area and uncontaminated areas including windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grills, grates, diffusers, and skylights with a critical barrier consisting of at least two independent sheets of 6-mil or thicker polyethylene sheeting secured in place. These critical barriers must be maintained leak-tight for the duration of asbestos abatement.

Thoroughly clean and remove all movable objects from the work area.

Thoroughly clean, then cover and secure each non-movable object in the work area with at least one sheet of 4-mil or thicker polyethylene sheeting.

Use polyethylene sheeting to isolate contaminated from uncontaminated areas, and ensure the sheeting is attached securely in place and properly maintained at all times.

Prevent contamination of carpet with ACM, or dispose of the carpet as asbestos-contaminated waste.

Cover floors not being abated with at least two layers of 6-mil or thicker polyethylene sheeting. Floor sheeting shall be installed first and shall extend at least 12 inches up the walls and be taped into place. No seams shall be located at wall/floor joints. Spray-applied polyethylene coating shall not be used.

Cover walls and ceilings not being abated with at least one sheet of 4-mil or thicker polyethylene sheeting. Wall sheeting shall be installed to minimize joints and shall extend at least six inches beyond wall/floor joint and be taped into place. Ceiling sheeting shall extend at least 12 inches down the wall and be sized and taped into place. No seams shall be located at wall/ceiling or wall/wall joints.

Construct a decontamination enclosure system adjoining the contained work area. The decontamination enclosure shall be built in a manner that will prevent track-out of RACM, and shall consist of: a clean room equipped with appropriate storage containers and adequate space for changing clothing; an air lock; a shower room containing hot and cold or warm running water controllable at the tap; and an equipment room suitable for storage of tools and equipment.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Construct a clear viewing port measuring at least 24 inches by 24 inches in an external wall of the contained work area to allow unobstructed observation of abatement activities in the work area.

Operate negative pressure differential equipment with HEPA filtration continuously from the time that barrier construction is completed through the time that acceptable final clearance air monitoring results are obtained.

Provide the appropriate number of negative air machines to exchange the air inside the containment 4 times per hour and to maintain a minimum of -0.02 column inches of water pressure differential, relative to pressure outside of the containment, as verified and recorded by a manometer.

Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.

Prior to removal, all RACM is thoroughly wet through to the substrate using amended water and shall remain wet until disposed of in accordance with 40 CFR 61.150, as amended, and any subsequent amendments and editions.

Carefully lower RACM to the ground or floor, not dropped or thrown; and at no time shall RACM be allowed to accumulate or become dry.

Polyethylene bags of at least 6-mil thickness shall be used for waste, bags shall be leak-tight. Excess air (gooseneck) shall be removed from bags prior to sealing using a vacuum equipped with a HEPA filtration system in accordance with OSHA regulation 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Following abatement, a visual inspection of the abated substrate is performed. Upon passing the visual inspection, a coating of a compatible encapsulating agent is applied to porous surfaces that have been stripped and cleaned of ACM. The encapsulant must be allowed to thoroughly dry prior to additional cleaning or final air clearance.

If there is any evidence of contamination, the CONTRACTOR shall perform additional wet cleaning and HEPA vacuuming.

All polyethylene sheeting, except for critical barriers and the decontamination enclosure system, is removed and disposed of as asbestos-contaminated waste.

With only the critical barriers and decontamination enclosure system left in place, the entire work area, including any duct work, is wet-cleaned and HEPA vacuumed until no visible residue remains.

Daily air monitoring and clearances shall be performed.

Areas exceeding clearance standards are re-cleaned by the contractor using wet methods and HEPA vacuuming. Re-cleaning, drying, and retesting shall be repeated until the satisfactory clearance standard is achieved. The CONTRACTOR shall bear the costs of additional clearance testing.

Following satisfactory clearance of the work area, remaining polyethylene critical barriers and decontamination enclosure systems are removed and disposed of as asbestos-contaminated waste.

The CONTRACTOR may choose to remove any other Class II friable or non-friable ACM (flooring, mastic and carpets) inside the Class I containment as friable.

B. Removal of ACM (Class II Work, Exterior).

The CONTRACTOR shall:

Remove the ACM in a non-friable manner. All ACM once removed shall be: thoroughly wet during stripping or removal and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry.

Assure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Assure that any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Air monitoring shall be performed during all abatement activities. Clearance shall consist of visual observation.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, rigid top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
2023 EMANUAL ST.
RESIDENTIAL PROPERTY**

CLIENT:

City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440

LOCATION:

2023 Emanuel St.
Georgetown, SC

DATE OF INSPECTION:

September 26, 2022

DATE OF REPORT:

November 7, 2022

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
843-606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT
2023 Emanuel St., Georgetown, SC

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FIGURES

1.0 Site Location Map

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B Asbestos Inspector’s License
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1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at 843-606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown, and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



11/7/2022


Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: November 16, 2022

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervisor No. SA-03626
Expiration Date: December 9, 2022



11/7/2022

Jordan Suttles

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-002074
Expiration Date: February 1, 2023

SC DHEC AHERA Asbestos Air Sampler No. AS-000665
Expiration Date: February 17, 2023

SC DHEC AHERA Asbestos Supervisor No. SA-003673
Expiration Date: February 17, 2023

2.0 EXECUTIVE SUMMARY

On September 26, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2023 Emanuel St., Georgetown, South Carolina.

A one-story residential building exists at the site. The building is currently not occupied. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The purpose of this inspection was to investigate available records for the specification of asbestos containing material (ACM), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. Seven (7) homogeneous areas were sampled. The homogeneous areas are described in detail in section 3.0 of this report.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 10% Chrysotile and there is approximately 1,200 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CTEX-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 600 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 975 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for

damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, 2 AND 3

The roofing material were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.2 Cementitious Board

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 10% Chrysotile and there is approximately 1,200 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.3 Window Glazing

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.4 Brick and Mortar

BM-1, 2 AND 3

The brick and mortar were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.5 Ceiling Texture

CTEX-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 600 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.6 Wallboard System

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 975 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.7 Flooring Material

FT-1, 2 AND 3

The flooring material was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM (Y/N)	AMOUNT
ROOFING MATERIAL	N	1,000 SF
CEMENTITIOUS BOARD	Y	1,200 SF
WINDOW GLAZING	N	55 LF
BRICK AND MORTAR	N	450 SF
CEILING TEXTURE	Y	600 SF
WALLBOARD/JOINT COMPOUND	Y	975 SF
FLOORING MATERIAL	N	400 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On September 26, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2023 Emanuel St., Georgetown, South Carolina.

A one-story residential building exists at the site. The building is currently not occupied. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

TR-1, 2 AND 3

The cementitious board was sampled from exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 10% Chrysotile and there is approximately 1,200 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CTEX-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 600 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2 AND 3

The wallboard/joint compound was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 975 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied miscellaneous material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

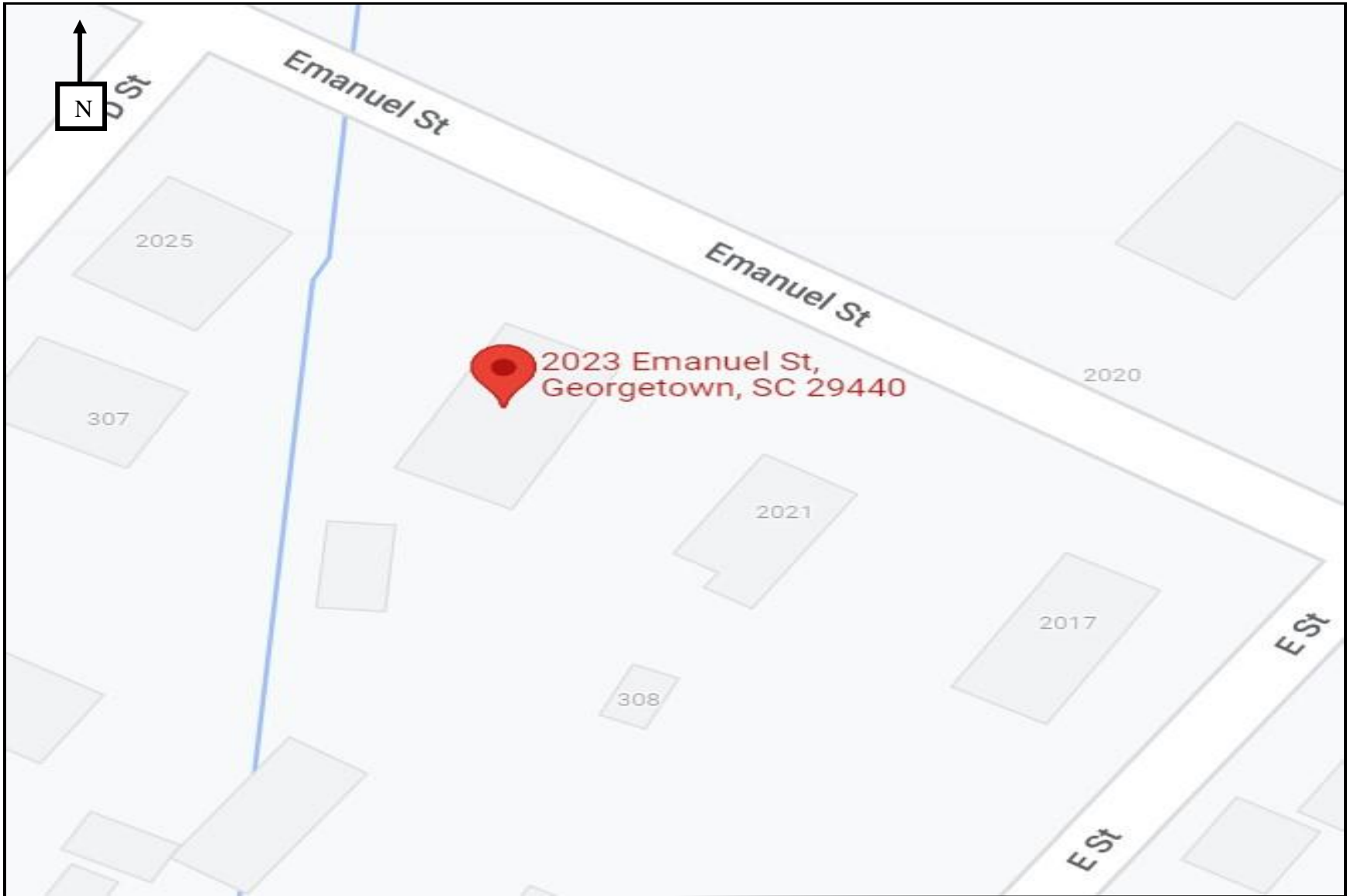


Figure 1
Site Location Map

2023 Emanuel Street
Georgetown, South Carolina



SUMMIT ELT, Inc.
Project: 0069.E0001

APPENDIX A
ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: 2023 Emanual St.

Summit #: 2022-9-29-0069.E0001

Date Analyzed: 10/4/2022

Date Reported: 10/4/2022

Total Samples Analyzed: 22

Samples >1% Asbestos: 3

Method of Analysis: EPA 600/R-93/116/M4-82/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
 Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022

Date Analyzed: 10/4/2022

Date Reported: 10/4/2022

Project : 2023 Emanuel St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1-Shingle 2022-9-29-0069.E0001-1	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-1-Felt 2022-9-29-0069.E0001-1A	Roofing Material	Brown Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
RF-2-Shingle 2022-9-29-0069.E0001-2	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2-Felt 2022-9-29-0069.E0001-2A	Roofing Material	Brown Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
TR-1-Transite 2022-9-29-0069.E0001-3	Transite	Gray, Beige Fibrous Homogeneous		90% Non-fibrous (other)	10% Chrysotile
TR-1-Felt 2022-9-29-0069.E0001-3A	Transite	Black Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (other)	None Detected
TR-2-Transite 2022-9-29-0069.E0001-4	Transite				Positive stop (not analyzed)
TR-2-Felt 2022-9-29-0069.E0001-4A	Transite	Black Fibrous Homogeneous	50% Cellulose	50% Non-fibrous (other)	None Detected
TR-3-Transite 2022-9-29-0069.E0001-5	Transite				Positive stop (not analyzed)
WG-1 2022-9-29-0069.E0001-5	Window Glazing	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WG-2 2022-9-29-0069.E0001-6	Window Glazing	White, Beige Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Brick 2022-9-29-0069.E0001-7	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Mortar 2022-9-29-0069.E0001-7A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Brick 2022-9-29-0069.E0001-8	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022
Date Analyzed: 10/4/2022
Date Reported: 10/4/2022

Project : 2023 Emanuel St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy


Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
BM-2-Mortar 2022-9-29-0069.E0001-8A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Brick 2022-9-29-0069.E0001-9	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Mortar 2022-9-29-0069.E0001-9A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-1 2022-9-29-0069.E0001-10	Ceiling Texture	Beige Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
Ctex-2 2022-9-29-0069.E0001-11	Ceiling Texture				Positive stop (not analyzed)
Ctex-3 2022-9-29-0069.E0001-12	Ceiling Texture				Positive stop (not analyzed)
WB-1-Wallboard 2022-9-29-0069.E0001-13	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-1-Joint Compound 2022-9-29-0069.E0001-13A	Wallboard and Joint Compound	Beige Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WB-2-Wallboard 2022-9-29-0069.E0001-14	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-2-Joint Compound 2022-9-29-0069.E0001-14A	Wallboard and Joint Compound				Positive stop (not analyzed)
WB-3-Wallboard 2022-9-29-0069.E0001-15	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-3-Joint Compound 2022-9-29-0069.E0001-15A	Wallboard and Joint Compound				Positive stop (not analyzed)
FT-1 2022-9-29-0069.E0001-16	Flooring Material	Beige, Black Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
FT-2 2022-9-29-0069.E0001-17	Flooring Material	Beige, Black Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



METHOD: EPA 600/R-93/116/M4-82/020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain of Custody.

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Analyst(s): 
Cass E. Rupert

Approved By: 
Maria Cao,
Approved Signatory

Summit Laboratories, 3575 Centre Circle, Fort Mill, SC 29715, Phone: (704) 504-1717



CHAIN OF CUSTODY

LAB USE ONLY:

Summit Order Number: 2023-9-29-0069.E0001

2520 Whitehall Park Rd – Suite 250,
Charlotte, NC 28273
Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION	
Company:	Job Contact: L. Smith/ A. Monk
Address:	Email: lsmith@summit-companies.org
	Tel:
	Fax:
Project Name: <u>W.E.N. - 2023 Emanuel St.</u>	State Collected In: SC
Project ID #: <u>0069.E0001</u>	

Bill to: Same Different – If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: <u>Send to CEI for TEM</u>		<input checked="" type="checkbox"/>	Accept Samples
		<input type="checkbox"/>	Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
<u>L Smith</u>	<u>9.28.22</u>	<u>F. DE...</u>	<u>9.28.22</u>
			<u>9/29/22</u>

Samples will be disposed of 60 days after analysis

October 10, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: 2023 Emmanuel St, 0069.E0001
LAB CODE: ST220250v2

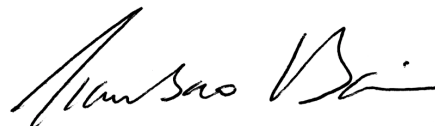
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on October 3, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: 2023 Emmanuel St, 0069.E0001

LAB CODE: ST220250v2

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 10/10/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220250v2
Date Received: 10-03-22
Date Analyzed: 10-10-22
Date Reported: 10-10-22

Project: 2023 Emmanuel St, 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST01830	Black Shingle	0.3202	22.9	53.2	23.9	None Detected
RF-3 ST01831	Felt	0.2515	91	8.8	.2	None Detected
WG-3 ST01832	Window Glaze	0.2725	15.6	81.4	3	None Detected
FT-3 ST01833	Flooring Self Stick	0.1267	29.4	70.5	.1	None Detected
TR-3 ST01834	Felt Only	0.1916	95.4	3.9	.7	<1% Chrysotile

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

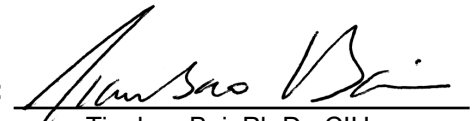
Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Eurofins CEI recommends between 0.500 and 0.200 grams of sample material. *Any weight below 0.100 grams is considered below protocol guidelines.*

ANALYST:


Brunilda Gjoka

APPROVED BY:


Tianbao Bai, Ph.D., CIH
Laboratory Director

A version indicated by 'v' after the Lab ID# with a value greater than 1 indicates an amendment has occurred. The revised sample/description/ID is indicated by an *



Eurofins Built Environment CEI
 2752 Pleasant Road, Suite 100A
 Fort Mill, SC 29708
 Tel: 866-481-1412; Fax: 919-481-1442

CEI

CHAIN OF CUSTODY

LAB USE ONLY:	
ECEI Lab Code:	ST220250
ECEI Lab I.D. Range:	

5

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Ce: Maria Cao
Company: Summit ELT	Email / Tel: mcao@summit-companies.com
Address: 3575 Centre Circle	Project Name: 2023 Emmanuel St
	Project ID#: 0069.E0001
Email: envirofins@summit-companies.com	PO #:
Tel: 704.504.1717 Fax:	STATE SAMPLES COLLECTED IN: SC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR (PCME)	ISO 10312	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	ASTM 6281-15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05 (2010)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM QUALITATIVE	IN-HOUSE METHOD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS: Please only analyze the layers listed on the COC Please CC: envirofins@summit-companies.com on the results		<input checked="" type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<i>Matthew Duke</i>	10/3/2022	<i>CRB</i>
		10/3 11:40

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
 Samples will be disposed of 30 days after analysis

Page _____ of _____

COMPANY CONTACT INFORMATION	
Company: Summit ELT, P.C.	Job Contact: Logan Smith/A. Monk
Project Name: 2023 Emmanuel St.	lsmith@summit-companies.com
Project ID #: 0069.E0001	Tel:

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
			PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
RF-3	black shingle and felt		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
WG-3	window glaze		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>
FT-3	flooring self stick		PLM <input type="checkbox"/>	TEM <input checked="" type="checkbox"/>

APPENDIX B
ASBESTOS LICENSES

SCDHEC ISSUED

Asbestos ID Card

Jordan Suttles



		Expiration Date:
AIRSAMPLER	AS-000665	02/17/23
CONSULTBI	BI-002074	02/01/23
SUPERAHERA	SA-003673	02/17/23

SCDHEC ISSUED

Asbestos ID Card

Logan Smith

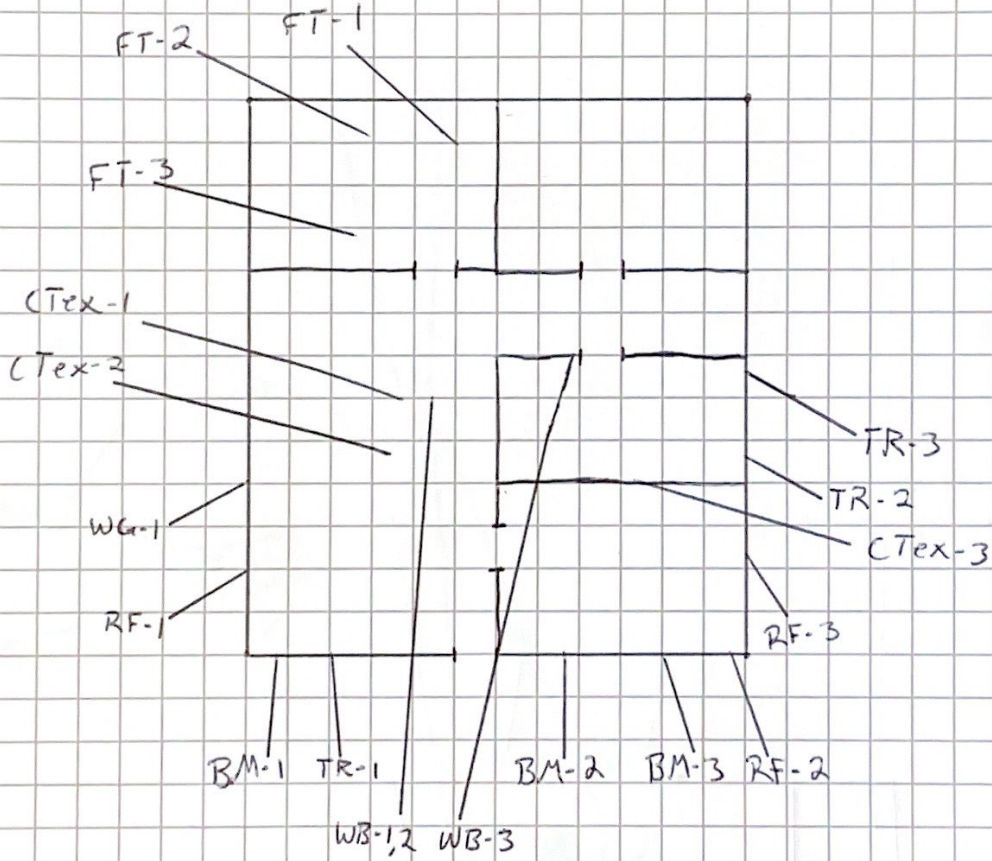


		Expiration Date:
AIRSAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

APPENDIX C
SUMMIT DOCUMENTATION



PREPARED BY: <i>LJ</i>	DATE: 10.28.22	CHECKED BY:	DATE:	PROJECT NO: 0069.E0001
PROJECT NAME: <i>West-End Demolition 2023 Emanuel Street</i>				SHEET NO ___ OF ___





AHERA/NESHAP ASBESTOS PROJECT DESIGN
2203 WINYAH STREET
GEORGETOWN, SC

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2203 Winyah Street
Georgetown, SC 29440*

DATE OF DESIGN:

February 28, 2023

PREPARED BY:

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202 Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2203 Winyah Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for City of Georgetown. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:
2203 Winyah Street, Georgetown, South Carolina

Consultant:
SUMMIT Engineering Laboratory & Testing, INC.
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268



David Lago, Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer No. PD-00202 – Expiration Date: April 5, 2023
SC DHEC AHERA Asbestos Building Inspector No. BI-01697
SC DHEC AHERA Asbestos Management Planner No. MP-00262
SC DHEC AHERA Asbestos Air Sampler No. AS-00551
SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or serious injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:
City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:
2203 Winyah Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials.
Estimated quantities of ACM to be abated include:

- Approximately 700 square feet of wallboard/joint compound material, approximately 800 square feet of asphalt roofing shingles, with asbestos contaminated building material is approximately 4,000 cubic feet of material.

The project involves the removal and disposal of the above noted items.

Due to neglect, the structural components of the building appear to be unsound. Pending agreement and a granted variance by DHEC, the ACM shall be abated in place by means of demolition of the building while using the proper work methods. Wet methods shall be utilized heavily during removal to control emissions. The contaminated water used to control emissions must be contained, filtered through a 5-micron or less filter and properly disposed of into a sanitary sewer. Perimeter air monitoring must take place during abatement/demolition.

Roll off containers utilizing 2 layers of re-enforced polyethylene sheeting shall be used to store and transport all Asbestos Containing Materials. Polyethylene sheeting shall be installed in a manner in which the poly can be folded over from both sides and sealed along the top when the dumpster is full or at the end of each work day. Tops of containers must be completely covered and sealed using polyethylene sheeting at the end of each work day and prior to transport to the landfill. The CONTRACTOR shall be responsible for determining the appropriate number of roll-off containers. A visual clearance shall be performed after removal of all Asbestos Containing /Asbestos-Contaminated materials from the site.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The CONTRACTOR shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall coordinate the location and availability of utilities through the OWNER. The CONTRACTOR shall ensure that all electrical cords

are connected to GFI devices. The CONTRACTOR shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. Location:
2203 Winyah Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to demolition. Estimated quantities of ACM to be abated include:

- Approximately 700 square feet of wallboard/joint compound material, approximately 800 square feet of asphalt roofing shingles, with asbestos contaminated building material is approximately 4,000 cubic feet of material.

Due to neglect, the structural components of the building appear to be unsound. Pending agreement and a granted variance by DHEC, the ACM shall be abated in place by means of demolition of the building while using the proper work methods. Wet methods shall be utilized heavily during removal to control emissions. The contaminated water used to control emissions must be contained, filtered through a 5-micron or less filter and properly disposed of into a sanitary sewer. Perimeter air monitoring must take place during abatement/demolition.

Roll off containers utilizing 2 layers of re-enforced polyethylene sheeting shall be used to store and transport all Asbestos Containing Materials. Polyethylene sheeting shall be installed in a manner in which the poly can be folded over from both sides and sealed along the top when the dumpster is full or at the end of each work day. Tops of containers must be completely covered and sealed using polyethylene sheeting at the end of each work day and prior to transport to the landfill. The CONTRACTOR shall be responsible for determining the appropriate number of roll-off containers. A visual clearance shall be performed after removal of all Asbestos Containing /Asbestos-Contaminated materials from the site.

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.

30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
31. "EPA" - United States Environmental Protection Agency.
32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
33. "F/cc" - Fibers per cubic centimeter.
34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
40. "HVAC" - Heating, ventilation, and air conditioning.
41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.
47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).

48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and/or area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Exterior
PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

The air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south and west).

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

A. SIGNS

1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The CONTRACTOR shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

A. Respirators

- 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
- 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
- 3. All respirators must be NIOSH approved.

- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).

- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).

- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.

E. Miscellaneous Equipment

- 1. Low pressure sprayer for amended water applications.
- 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.

- 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
- 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.

- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

- A. Removal/demolition of the structure (Class I/II Work, Exterior):

The CONTRACTOR shall treat the entire structure as asbestos contaminated materials. All material shall be thoroughly wet during demolition activities and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry. The waste containers shall be lined with 6-mil polyethylene sheeting. Once the container is full, the ACM will be sealed inside the container with polyethylene sheeting. The waste containers shall be removed from the site for disposal at a licensed asbestos landfill. If the ACM roofing material cannot be removed from the site during the day it is generated, the site must be secured.

All water used for wetting the asbestos must be collected and filtered. The filter shall be a 5-micron filter. After filtration, the water shall be disposed of in a sanitary sewer.

Air monitoring shall be performed during all demolition activities. Clearance shall consist of visual clearance.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, open top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



AHERA/NESHAP ASBESTOS INSPECTION REPORT
2203 WINYAH STREET
GEORGETOWN, SC

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2203 Winyah Street
Georgetown, SC 29440*

DATE(S) OF INSPECTION:

February 16, 2023

DATE OF REPORT:

February 28, 2023

PREPARED BY:

*Julian Lago
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory and Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, South Carolina 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT

2203 Winyah Street
Georgetown, SC

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1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at (843) 606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



2/28/2023

Date

Julian P. Lago

SC DHEC AHERA Asbestos Building Inspector No. BI-01697
Expiration Date: April 7, 2023

SC DHEC AHERA Asbestos Air Sampler No. AS-00551
Expiration Date: April 6, 2023

SC DHEC AHERA Asbestos Supervisor No. SA-02985
Expiration Date: April 6, 2023

SC DHEC AHERA Asbestos Management Planner No. MP-00262
Expiration Date: April 7, 2023

SC DHEC AHERA Asbestos Project Designer No. PD-00202
Expiration Date: April 5, 2023

2.0 EXECUTIVE SUMMARY

On February 16, 2023, SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT) performed an AHERA/NESHAP Asbestos Inspection for 2203 Winyah Street, located in Georgetown, South Carolina.

One (1) dilapidated residential structure exists at the site address. The roof of the structure has collapsed into the interior. The structure is currently vacant. The structure is intended to be demolished.

The purpose of this inspection was to investigate available records for the specification of ACM (Asbestos Containing Materials), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. There were approximately four (4) homogeneous suspect materials observed on the structure. The homogeneous areas are described in detail in section 3.0 of this report.

The following materials sampled were found to be Asbestos Containing Materials (ACMs):

WB-1, WB-2 AND WB-3

The wallboard/joint compound is located throughout the structure. The material is currently in damaged condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 700 SF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

RS-1, RS-2 AND RS-3

The roof of the structure has collapsed and the asphalt roofing shingles are located throughout the structure. The material is currently in significantly damaged condition and is non-friable with a high potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 800 SF of the material. The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

Due to the collapsed condition of the roof and the ACM asphalt roofing shingles located throughout the structure, all materials shall be treated and disposed of as RACM.

3.0 SUSPECT MATERIALS

3.1 Wallboard System

WB-1, WB-2 AND WB-3

The wallboard/joint compound is located throughout the structure. The material is currently in damaged condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 700 SF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.2 Plaster System

PLS-1, PLS-2 AND PLS-3

The plaster material is located throughout the structure. The material is currently in significantly damaged condition and is friable with a high potential for damage. The material was sampled, and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.3 Cinder Block

CB-1, CB-2 AND CB-3

The cinder block is located throughout the structure. The material is currently in good condition and is non-friable with a low potential for damage. The material was sampled, and the results indicated that the material is not classified as Asbestos Containing Materials (ACM). The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

3.4 Roofing

RS-1, RS-2 AND RS-3

The roof of the structure has collapsed and the asphalt roofing shingles are located throughout the structure. The material is currently in significantly damaged condition and is non-friable with a high potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 800 SF of the material. The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

Due to the collapsed condition of the roof and the ACM asphalt roofing shingles located throughout the structure, all materials shall be treated and disposed of as RACM.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM? ¹ (Y/N)	APPROXIMATE QUANTITY ²
WALLBOARD/JOINT COMPOUND	Y	700 SF
PLASTER	N	750 SF
CINDER BLOCK	N	1,200 SF
ASPHALT ROOFING SHINGLES	Y	800 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On February 16, 2023, SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT) performed an AHERA/NESHAP Asbestos Inspection for 2203 Winyah Street, located in Georgetown, South Carolina.

One (1) dilapidated residential structure exists at the site address. The roof of the structure has collapsed into the interior. The structure is currently vacant. The structure is intended to be demolished.

WB-1, WB-2 AND WB-3

The wallboard/joint compound is located throughout the structure. The material is currently in damaged condition and is friable with a low potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 700 SF of the material. The material is classified as surfacing. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

RS-1, RS-2 AND RS-3

The roof of the structure has collapsed and the asphalt roofing shingles are located throughout the structure. The material is currently in significantly damaged condition and is non-friable with a high potential for damage. The material was sampled and the results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 800 SF of the material. The material is classified as miscellaneous. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the sampling locations can be found in SUMMIT Documentation.

Due to the collapsed condition of the roof and the ACM asphalt roofing shingles located throughout the structure, all materials shall be treated and disposed of as RACM.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied surfacing material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

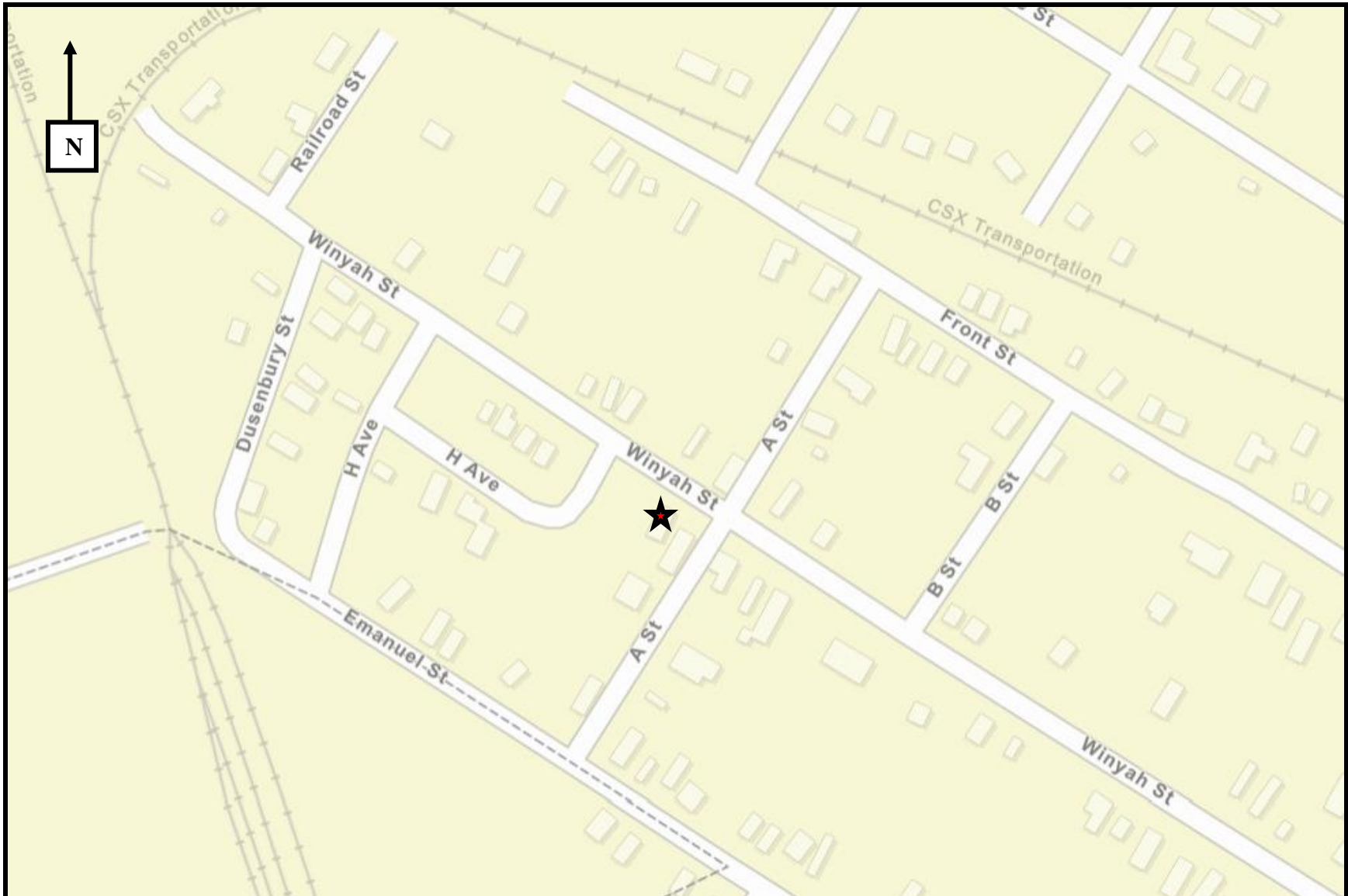


Figure 1
Site Location Map

2203 Winyah Street
Georgetown, SC



SUMMIT ELT, INC
Project: 0069.E0001

APPENDIX A

ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: 2203 Winyah Street

Summit #: 2023-2-17-0069.E0001

Date Analyzed: 2/21/2023

Date Reported: 2/21/2023

Total Samples Analyzed: 11

Samples >1% Asbestos: 2

Method of Analysis: App E to Sub E. of 40 CFR Part 763 and
EPA/600/R-93/116

Summit ELT, Inc.
 3575 Centre Circle
 Fort Mill, SC 29715

Date Received: 2/17/2023
 Date Analyzed: 2/21/2023
 Date Reported: 2/21/2023

Project : 2203 Winyah Street

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
WB-1-Wallboard 2023-2-17-0069.E0001-1	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-1-Joint Compound 2023-2-17-0069.E0001-1A	Wallboard and Joint Compound	White Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WB-2-Wallboard 2023-2-17-0069.E0001-2	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-2-Joint Compound 2023-2-17-0069.E0001-2A	Wallboard and Joint Compound				Positive stop (not analyzed)
WB-3-Wallboard 2023-2-17-0069.E0001-3	Wallboard and Joint Compound	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-3-Joint Compound 2023-2-17-0069.E0001-3A	Wallboard and Joint Compound				Positive stop (not analyzed)
PLS-1 2023-2-17-0069.E0001-4	Plaster	Gray, Beige Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
PLS-2 2023-2-17-0069.E0001-5	Plaster	Gray, Beige Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
PLS-3 2023-2-17-0069.E0001-6	Plaster	Gray, Beige Fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CB-1 2023-2-17-0069.E0001-7	Cinder Block	Gray, White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CB-2 2023-2-17-0069.E0001-8	Cinder Block	Gray, White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CB-3 2023-2-17-0069.E0001-9	Cinder Block	Gray, White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
RS-1 2023-2-17-0069.E0001-10	Roofing Shingles	Black Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
RS-2 2023-2-17-0069.E0001-11	Roofing Shingles				Positive stop (not analyzed)



UES Laboratories

2520 Whitehall Park Dr., Ste. 250
Phone: (704) 626.0834

UES Order: 2023-2-17-0069.E0001

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 2/17/2023
Date Analyzed: 2/21/2023
Date Reported: 2/21/2023

Project : 2203 Winyah Street

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	% Fibrous	Non-Asbestos		Asbestos
				% Non-Fibrous	% Asbestos	
RS-3	Roofing Shingles					Positive stop (not analyzed)

2023-2-17-0069.E0001-12




METHOD: App E to Sub E. of 40 CFR Part 763 and EPA/600/R-93/116

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. The percentage of asbestos reported is a midpoint within an acceptable range. The estimated measurement of uncertainty is available upon request. Results relate only to the items received by the laboratory as noted on the Chain of Custody provided by the client.

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Analysis is determined by Calibrated Visual Estimate (CVE).
Temperature at the time of analysis (°C) : 25

NVLAP Code: 600344

Analyst(s): 
Cass E. Rupert

Approved By: 
Maria Cao
Approved Signatory

UES Laboratories, 2520 Whitehall Park Dr. Ste. 250, Charlotte, NC Phone: (704) 504-1717



CHAIN OF CUSTODY

2520 Whitehall Park Dr. Ste. 250
 Tel: 704-504-1717; Fax: 704-504-1125

LAB USE ONLY:
UES Order Number: <u>2023-2-17-0069 E0001</u>

COMPANY CONTACT INFORMATION	
Company: Summit ELT - Charleston	Job Contact: J. Lago / A. Monk
Address: 1539 Meeting Street - Suite A Charleston, SC 29405	Email: Jlago@summit-companies.com Amonk@summit-companies.com
Project Name: 2203 Winyah Street	Tel:
Project ID #: 0069.E0001	Fax:
	State Collected In: SC

Bill to: Same Different - If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to UES Terms and Conditions

COMMENTS: Notify SAI if TEM required.		<input checked="" type="checkbox"/> Accept Samples	<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
Julian Lago	2-16-2023		2/17/23 11:00

Samples will be disposed of 60 days after analysis

APPENDIX B

INSPECTOR'S LICENSES

SCDHEC ISSUED

Asbestos ID Card

Julian Lago



		Expiration Date:
AIRAMPLER	AS-00551	04/06/23
CONSULTBI	BI-01697	04/07/23
CONSULTMP	MP-00262	04/07/23
CONSULTPD	PD-00202	04/05/23
SUPERAHERA	SA-02985	04/06/23

APPENDIX C

SUMMIT DOCUMENTATION

2203 WINYAH STREET

PLAS-3

CB-1

WB-3

RS-3

WB-2

PLAS-2

RS-2

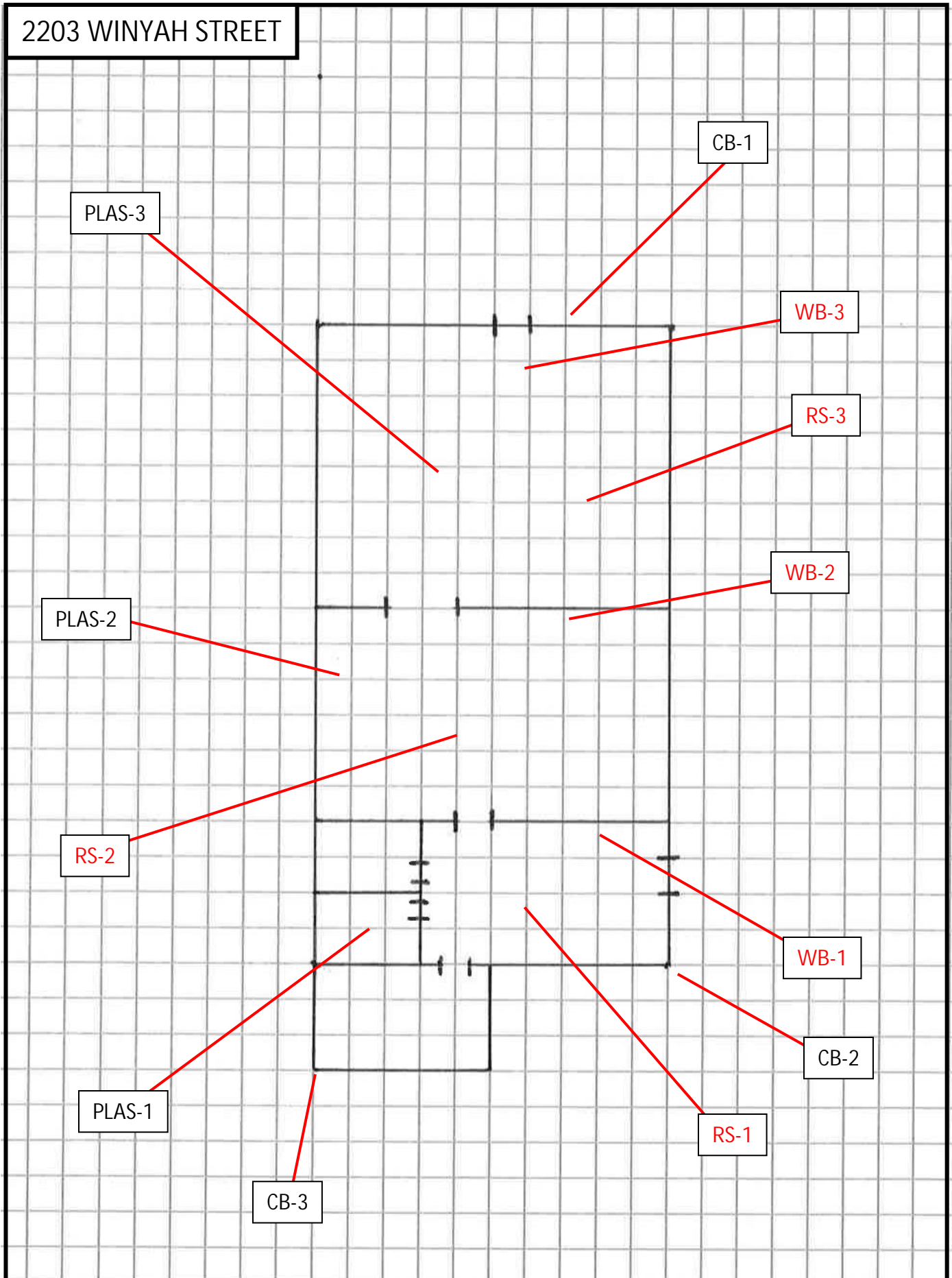
WB-1

CB-2

PLAS-1

CB-3

RS-1





AHERA/NESHAP ASBESTOS PROJECT DESIGN
2314 WINYAH STREET
GEORGETOWN, SC

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2314 Winyah Street
Georgetown, South Carolina 29440*

DATE OF DESIGN:

January 23, 2023

PREPARED BY:

Julian P. Lago

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202, Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2314 Winyah Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for 2314 Winyah Street, located in Georgetown, South Carolina. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:
2314 Winyah Street, Georgetown, South Carolina

Consultant:
SUMMIT Engineering Laboratory & Testing, INC.
Julian Lago, Environmental Staff Professional
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268
SC DHEC AHERA Asbestos Project Designer No. PD-00202 Expiration Date: April 5, 2023
SC DHEC AHERA Asbestos Building Inspector No. BI-01697
SC DHEC AHERA Asbestos Management Planner No. MP-00262
SC DHEC AHERA Asbestos Air Sampler No. AS-00551
SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state, and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or severe injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:
City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:
2314 Winyah Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to renovation. Estimated quantities of ACM to be abated include:

Asbestos Abatement:

- Approx. 250 SF of ceiling texture (Class I - Friable, Interior)
- Approx. 2,000 SF of drywall/joint compound (Class I - Friable, Interior)
- Approx. 80 LF of window glazing (Class II – Non-Friable, Exterior)
- Approx. 1,300 SF of cementitious board siding (Class II – Non-Friable, Exterior)

The project involves the removal and disposal of the above noted items.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The OWNER shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall ensure that all electrical cords are connected to GFI devices. Hoses and cords not suspended shall be taped to the floor utilizing caution tape in high traffic areas. The OWNER shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. Location:
2314 Winyah Street, Georgetown, South Carolina

Asbestos Abatement:

- Approx. 250 SF of ceiling texture (Class I - Friable, Interior)
- Approx. 2,000 SF of drywall/joint compound (Class I - Friable, Interior)
- Approx. 80 LF of window glazing (Class II – Non-Friable, Exterior)
- Approx. 1,300 SF of cementitious board siding (Class II – Non-Friable, Exterior)

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.

30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
31. "EPA" - United States Environmental Protection Agency.
32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
33. "F/cc" - Fibers per cubic centimeter.
34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
40. "HVAC" - Heating, ventilation, and air conditioning.
41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.
47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).

48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager, and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours, and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Interior

In each homogeneous Work Area or as required by the CONSULTANT, a minimum of five (5) PCM samples will be taken and analyzed as a baseline prior to the CONTRACTOR's mobilization to the site. PCM air samples both inside and outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria. If baseline samples cannot be collected for any reason, they will be assumed to be Zero (0).

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Inside Work Area (Initial Baseline)	5	1,200	Mixed Cellulose Ester
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester
Inside Work Area (Clearance)	5	1,200	Mixed Cellulose Ester

Clearance sampling, as detailed in AHERA consists of: five (5) clearance samples inside the work area plus one (1) field blank inside the work area; five (5) clearance samples outside the work area plus one (1) field blank outside the work area; plus, one (1) trip blank.

Clearance samples outside the work area and the field blank sample outside the work area will not be collected and will be assumed to be Zero (0). The trip blank sample will also be assumed to be Zero (0).

Clearance samples shall be by PCM analysis and verbal results will be available within 24 hours of completion of clearance sampling. Upon completion of the project, CONSULTANT will provide OWNER and CONTRACTOR a written report detailing the air sampling results. The written report will be available within five (5) business days.

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Release Criteria: Decontamination of the project is complete as determined by the analytical protocol if each of the Work Area samples is below 0.01 fibers/cubic centimeter or (f/cc) 70 (structures) f/mm² (if TEM analysis is required). If the analysis of the Work Area samples fails to meet the release criteria, then the CONTRACTOR must cease demolition activities and reassess their abatement to bring the fiber count to below 0.01 f/cc or 70 structures/mm².

The CONTRACTOR is cautioned, however, that should interpretations be made, opinions be formed and conclusions be drawn as a result of examining the test results, these interpretations, opinions and conclusions will be those made, formed and drawn solely by the CONTRACTOR. The CONTRACTOR is responsible for performing air tests required for its evaluation of the safety of its employees.

2. Exterior

PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by SUMMIT for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

Exterior air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south, and west).

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

A. SIGNS

1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA

- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The OWNER shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

- A. Respirators
 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
 3. All respirators must be NIOSH approved.
- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).
- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).
- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.
- E. Miscellaneous Equipment
 1. Low pressure sprayer for amended water applications.
 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.
 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.
- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

- A. Removal of ACM utilizing Enclosures (Class I Work, Interior, Full Containment).

The CONTRACTOR shall:

Seal each opening between the work area and uncontaminated areas including windows, doorways, elevator openings, corridor entrances, drains, ducts, electrical outlets, grills, grates, diffusers, and skylights with a critical barrier consisting of at least two independent sheets of 6-mil or thicker polyethylene sheeting secured in place. These critical barriers must be maintained leak-tight for the duration of asbestos abatement.

Thoroughly clean and remove all movable objects from the work area.

Thoroughly clean, then cover and secure each non-movable object in the work area with at least one sheet of 4-mil or thicker polyethylene sheeting.

Use polyethylene sheeting to isolate contaminated from uncontaminated areas, and ensure the sheeting is attached securely in place and properly maintained at all times.

Prevent contamination of carpet with ACM, or dispose of the carpet as asbestos-contaminated waste.

Cover floors not being abated with at least two layers of 6-mil or thicker polyethylene sheeting. Floor sheeting shall be installed first and shall extend at least 12 inches up the walls and be taped into place. No seams shall be located at wall/floor joints. Spray-applied polyethylene coating shall not be used.

Cover walls and ceilings not being abated with at least one sheet of 4-mil or thicker polyethylene sheeting. Wall sheeting shall be installed to minimize joints and shall extend at least six inches beyond wall/floor joint and be taped into place. Ceiling sheeting shall extend at least 12 inches down the wall and be sized and taped into place. No seams shall be located at wall/ceiling or wall/wall joints.

Construct a decontamination enclosure system adjoining the contained work area. The decontamination enclosure shall be built in a manner that will prevent track-out of RACM, and shall consist of: a clean room equipped with appropriate storage containers and adequate space for changing clothing; an air lock; a shower room containing hot and cold or warm running water controllable at the tap; and an equipment room suitable for storage of tools and equipment.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Construct a clear viewing port measuring at least 24 inches by 24 inches in an external wall of the contained work area to allow unobstructed observation of abatement activities in the work area.

Operate negative pressure differential equipment with HEPA filtration continuously from the time that barrier construction is completed through the time that acceptable final clearance air monitoring results are obtained.

Provide the appropriate number of negative air machines to exchange the air inside the containment 4 times per hour and to maintain a minimum of -0.02 column inches of water pressure differential, relative to pressure outside of the containment, as verified and recorded by a manometer.

Additional air filtration devices shall be provided inside the work area for emergency standby as well as for circulation of dead air spaces.

Prior to removal, all RACM is thoroughly wet through to the substrate using amended water and shall remain wet until disposed of in accordance with 40 CFR 61.150, as amended, and any subsequent amendments and editions.

Carefully lower RACM to the ground or floor, not dropped or thrown; and at no time shall RACM be allowed to accumulate or become dry.

Polyethylene bags of at least 6-mil thickness shall be used for waste, bags shall be leak-tight. Excess air (gooseneck) shall be removed from bags prior to sealing using a vacuum equipped with a HEPA filtration system in accordance with OSHA regulation 29 CFR 1926.1101, as amended, and any subsequent amendments and editions.

ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Following abatement, a visual inspection of the abated substrate is performed. Upon passing the visual inspection, a coating of a compatible encapsulating agent is applied to porous surfaces that have been stripped and cleaned of ACM. The encapsulant must be allowed to thoroughly dry prior to additional cleaning or final air clearance.

If there is any evidence of contamination, the CONTRACTOR shall perform additional wet cleaning and HEPA vacuuming.

All polyethylene sheeting, except for critical barriers and the decontamination enclosure system, is removed and disposed of as asbestos-contaminated waste.

With only the critical barriers and decontamination enclosure system left in place, the entire work area, including any duct work, is wet-cleaned and HEPA vacuumed until no visible residue remains.

Daily air monitoring and clearances shall be performed.

Areas exceeding clearance standards are re-cleaned by the contractor using wet methods and HEPA vacuuming. Re-cleaning, drying, and retesting shall be repeated until the satisfactory clearance standard is achieved. The CONTRACTOR shall bear the costs of additional clearance testing.

Following satisfactory clearance of the work area, remaining polyethylene critical barriers and decontamination enclosure systems are removed and disposed of as asbestos-contaminated waste.

The CONTRACTOR may choose to remove any other Class II friable or non-friable ACM (flooring, mastic and carpets) inside the Class I containment as friable.

B. Removal of ACM (Class II Work, Exterior).

The CONTRACTOR shall:

Remove the ACM in a non-friable manner. All ACM once removed shall be: thoroughly wet during stripping or removal and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry.

Assure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Assure that any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Air monitoring shall be performed during all abatement activities. Clearance shall consist of visual observation.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, rigid top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
2314 WINYAH ST.
RESIDENTIAL PROPERTY**

CLIENT:

City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440

LOCATION:

2314 Winyah St.
Georgetown, SC

DATE OF INSPECTION:

November 14, 2022

DATE OF REPORT:

January 20, 2023

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
843-606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT
2314 Winyah St., Georgetown, SC

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1.0 Site Location Map

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1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at 843-606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown, and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



1/20/2023

Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: November 16, 2022

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervision No. SA-03626
Expiration Date: December 9, 2022

2.0 EXECUTIVE SUMMARY

On November 14, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2314 Winyah St., Georgetown, South Carolina.

A residential property exists at the site. The inspection was performed on the one-story building within the site. The building was not occupied at the time of the inspection. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The purpose of this inspection was to investigate available records for the specification of asbestos containing material (ACM), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. Eight (8) homogeneous areas were sampled. The homogeneous areas are described in detail in section 3.0 of this report.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CM-1, 2 AND 3

The cementitious board was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 1,300 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CTEX-2-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 250 SF of the material. The material is classified as a

friable, surfacing material and is in good condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2, 3, 4 AND 5

The wallboard was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,000 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, 2 AND 3

The roofing material were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.2 Brick and Mortar

BM-1, 2 AND 3

The brick and mortar were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.3 Window Glazing

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.4 Cementitious Board

CM-1, 2 AND 3

The cementitious board was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 1,300 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.5 Ceiling Texture

CTEX-1-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a friable, surfacing material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CTEX-2-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 250 SF of the material. The material is classified as a friable, surfacing material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

All ceiling texture is to be treated as Asbestos Containing Material (ACM).

3.6 Wallboard

WB-1, 2, 3, 4 AND 5

The wallboard was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,000 SF of the material. The material is classified as a friable, surfacing material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.7 Flooring

FT-1, 02 AND 03

The flooring material was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM (Y/N)	AMOUNT
ROOFING MATERIAL	N	1,200 SF
BRICK AND MORTAR	N	1,000 SF
WINDOW GLAZING	Y	80 LF
CEMENTITIOUS BOARD	Y	1,300
CEILING TEXTURE 1	N	800 SF
CEILING TEXTURE 2	Y	250 SF
WALLBOARD	N	2,000 SF
FLOORING	N	600 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On November 14, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2314 Winyah St., Georgetown, South Carolina.

A residential property exists at the site. The inspection was performed on the one-story building within the site. The building was not occupied at the time of the inspection. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is intended to be demolished.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CM-1, 2 AND 3

The cementitious board was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 20% Chrysotile and there is approximately 1,300 SF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

CTEX-2-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 250 SF of the material. The material is classified as a friable, surfacing material and is in good condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

WB-1, 2, 3, 4 AND 5

The wallboard was sampled from the interior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 2,000 SF of the material. The material is classified as a

friable, surfacing material and is in good condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied miscellaneous material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

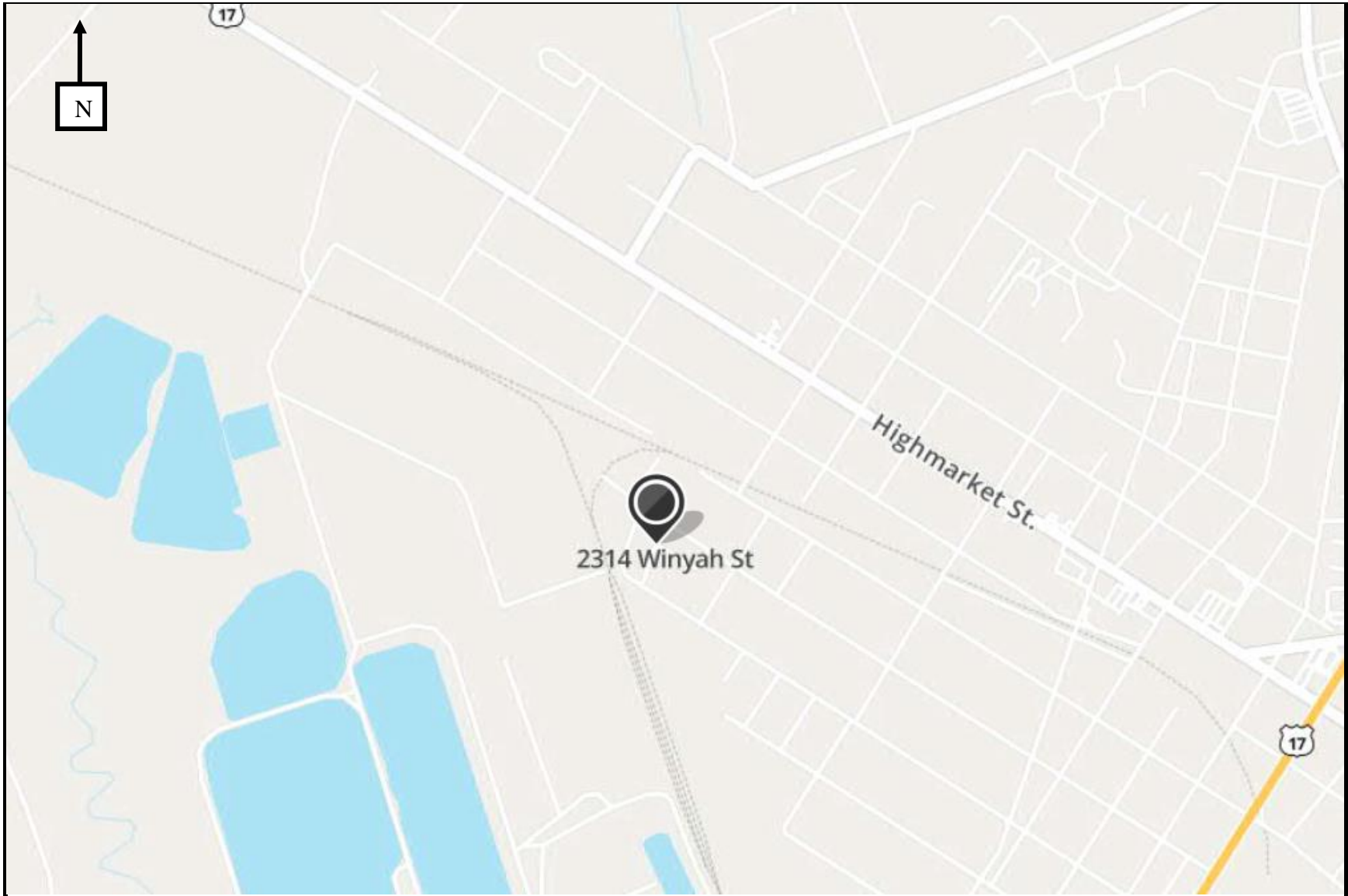


Figure 1
Site Location Map

2314 Winyah St
Georgetown, South Carolina



SUMMIT ELT, Inc.
Project: 0069.E0001

APPENDIX A
ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: West-End Neighborhood Demo - 2314 Winyah St.

Summit #: 2022-11-28-0069.E0001

Date Analyzed: 11/28/2022

Date Reported: 11/28/2022

Total Samples Analyzed: 28

Samples >1% Asbestos: 4

Method of Analysis: EPA 600 / R93 / 116 / M4-082/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-11-21-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 11/21/2022
Date Analyzed: 11/28/2022
Date Reported: 11/28/2022

Project : West-End Neighborhood Demo - 2314 Winyah St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1-Shingle 2022-11-21-0069.E0001-1	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-1-Felt 2022-11-21-0069.E0001-1A	Roofing Material	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
RF-2-Shingle 2022-11-21-0069.E0001-2	Roofing Material	Black, Gray Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2-Felt 2022-11-21-0069.E0001-2A	Roofing Material	Black Fibrous Homogeneous	60% Cellulose	40% Non-fibrous (other)	None Detected
BM-1-Brick 2022-11-21-0069.E0001-3	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Mortar 2022-11-21-0069.E0001-3A	Brick and Mortar	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Brick 2022-11-21-0069.E0001-4	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Mortar 2022-11-21-0069.E0001-4A	Brick and Mortar	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Brick 2022-11-21-0069.E0001-5	Brick and Mortar	Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Mortar 2022-11-21-0069.E0001-5A	Brick and Mortar	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WG-1 2022-11-21-0069.E0001-6	Window Glazing	Beige, White Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WG-2 2022-11-21-0069.E0001-7	Window Glazing				Positive stop (not analyzed)
WG-3 2022-11-21-0069.E0001-8	Window Glazing				Positive stop (not analyzed)
CM-1 2022-11-21-0069.E0001-9	Cementitious Board	White, Gray Fibrous Homogeneous		80% Non-fibrous (other)	20% Chrysotile



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-11-21-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 11/21/2022
Date Analyzed: 11/28/2022
Date Reported: 11/28/2022

Project : West-End Neighborhood Demo - 2314 Winyah St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
CM-2 2022-11-21-0069.E0001-10	Cementitious Board				Positive stop (not analyzed)
CM-3 2022-11-21-0069.E0001-11	Cementitious Board				Positive stop (not analyzed)
WB-1-Wallboard 2022-11-21-0069.E0001-12	Wallboard and Joint Compound	White, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-1-Joint Compound 2022-11-21-0069.E0001-12A	Wallboard and Joint Compound	Off-white Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-2-Wallboard 2022-11-21-0069.E0001-13	Wallboard and Joint Compound	White, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-2-Joint Compound 2022-11-21-0069.E0001-13A	Wallboard and Joint Compound	Off-white Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-3-Wallboard 2022-11-21-0069.E0001-14	Wallboard and Joint Compound	White, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-3-Joint Compound 2022-11-21-0069.E0001-14A	Wallboard and Joint Compound	Off-white Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WB-4-Wallboard 2022-11-21-0069.E0001-15	Wallboard and Joint Compound	White, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-4-Joint Compound 2022-11-21-0069.E0001-15A	Wallboard and Joint Compound	Off-white Non-fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WB-5-Wallboard 2022-11-21-0069.E0001-16	Wallboard and Joint Compound	White, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-5-Joint Compound 2022-11-21-0069.E0001-16A	Wallboard and Joint Compound	Off-white Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CTex 1-1 2022-11-21-0069.E0001-17	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CTex 1-2 2022-11-21-0069.E0001-18	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-11-21-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 11/21/2022
Date Analyzed: 11/28/2022
Date Reported: 11/28/2022

Project : West-End Neighborhood Demo - 2314 Winyah St.

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous (other)	% Asbestos
CTex 1-3 2022-11-21-0069.E0001-19	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
CTex 2-1 2022-11-21-0069.E0001-20	Ceiling Texture	Off-white Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
CTex 2-2 2022-11-21-0069.E0001-21	Ceiling Texture				Positive stop (not analyzed)
CTex 2-3 2022-11-21-0069.E0001-22	Ceiling Texture				Positive stop (not analyzed)
FL-1 2022-11-21-0069.E0001-23	Flooring	Cream, Beige Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected
FL-2 2022-11-21-0069.E0001-24	Flooring	Cream, Beige Fibrous Homogeneous	12% Cellulose	88% Non-fibrous (other)	None Detected




METHOD: EPA 600 / R93 / 116 /M4-082 / 020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain

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Analysis is determined by Calibrated Visual Estimate (CVE).
Temperature at the time of analysis (°C) : 24
(Refractive index is adjusted according to temperature)

Analyst(s): 
Cass E. Rupert

Approved By: 
Michael Zavislak
Approved Signatory

UES Laboratories, 2520 Whitehall Park Dr. Ste. 250, Charlotte, NC Phone: (704) 504-1717



2520 Whitehall Park Dr – Suite 250,
 Charlotte, SC 28273
 Tel: 704-626-0834; Fax: 704-504-1125

CHAIN OF CUSTODY

LAB USE ONLY:

Summit Order Number: 2022-11-21-0069.ECCY

COMPANY CONTACT INFORMATION

Company: Summit ELT	Job Contact: L. Smith/ A. Monk
Address: 1539 Meeting Street – Suite A	Email: amonk@summit-companies.com
	Tel: 704.965.9235
	Fax:
Project Name: West-End Neighborhood Demo	State Collected In: SC
Project ID #: 0069.E0001	

Bill to: Same Different – If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: Send TEM to lab of choice.		<input checked="" type="checkbox"/>	Accept Samples
2314 Winyah		<input type="checkbox"/>	Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
<i>L. Smith</i>	11.15.22	<i>F. AdER</i>	11.15.22
		<i>[Signature]</i>	11/21/22 1100

Samples will be disposed of 60 days after analysis



SAMPLING FORM

LAB USE ONLY:

Summit Order Number:

COMPANY CONTACT INFORMATION

Company: Summit ELT

Job Contact: L. Smith/ A. Monk

Project Name: West-End Neighborhood Demo

Project ID #: 0069.E0001

Tel: 704.965.9235

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/AREA	DATE/TIME SAMPLED
RF-1	Roofing Material		
-2	"		
-3	"		
B.M-1	Brick + Mortar		
-2	"		
-3	"		
WGe-1	Window Glazing		
-2	"		
-3	"		
CM-1	Cementitious Board		
-2	"		
-3	"		
WB-1	Wallboard / Joint compound		
-2	"		
-3	"		
-4	"		
-5	"		
CTex-1-1	Ceiling Texture		
-1-2	"		
-1-3	"		
CTex-2-1	Ceiling Texture		
-2-2	"		
-2-3	"		
FL-1	Flooring		
-2	"		
-3	"		

November 22, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: West-End Neighborhood Demo - 2314 Winyah St., 0069.E0001
LAB CODE: ST220411

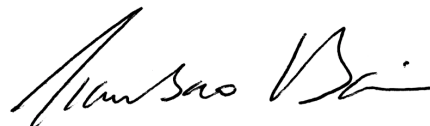
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on November 21, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: West-End Neighborhood Demo - 2314 Winyah St., 0069.
E0001

LAB CODE: ST220411

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 11/22/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220411
Date Received: 11-21-22
Date Analyzed: 11-22-22
Date Reported: 11-22-22

Project: West-End Neighborhood Demo - 2314 Winyah St., 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST02729	Black Shingle	0.1786	42.5	32.7	24.8	None Detected
RF-3 ST02730	Black Felt Paper	0.2937	96	1.6	2.4	None Detected
FL-3 ST02731	Cream Sheet Flooring	0.05	67.8	18.8	13.4	None Detected

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)

REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

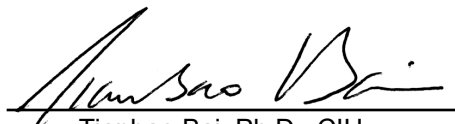
Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Eurofins CEI recommends between 0.500 and 0.200 grams of sample material. *Any weight below 0.100 grams is considered below protocol guidelines.*

ANALYST:


Miguel Angel Maysonet

APPROVED BY:


Tianbao Bai, Ph.D., CIH
Laboratory Director

Dr 11/30 5:00 PM



CEI

CHAIN OF CUSTODY

2752 Pleasant Rd. Suite 100A Fort Mill, SC 29708
Tel: 803-526-5146; Fax: 919-481-1442

ECEI Lab Code: <i>51220411</i>
ECEI Lab I.D. Range:

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Job Contact: Logan Smith / Tony Monk
Company: SUMMIT Engineering, Laboratory & Testing, Inc.	Email / Tel: LSmith@summit-companies.com / AMonk@summit-companies.com
Address: 3575 Centre Circle	Project Name: West-End Neighborhood Demo - 2314 Winyah St.
Fort Mill, NC 29715	Project ID#: 0069.E0001
mcao@summit-companies.com; mzavislak@summit-companies.com; Billing Email: crupert@summit-companies.com; envirolab@summit-companies.com;	PO #:
Tel: 803-238-1080	State of sample origin SC

ECEI standard terms are Net 30 days

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-19	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

TEM INSTRUCTIONS	
Begin TEM Analysis After Negative PLM	<input type="checkbox"/>
Analyze TEM Samples Simultaneously with PLM	<input type="checkbox"/>

REMARKS / SPECIAL INSTRUCTIONS:		<input checked="" type="checkbox"/> Accept Samples	
		<input type="checkbox"/> Reject Samples	
Relinquished By:	Date/Time	Received By:	Date/Time
<i>C. Rupert</i>	11/21/2022	<i>Emf</i>	11/21 2:48 PM

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
Samples will be disposed of 30 days after analysis

APPENDIX B
ASBESTOS LICENSES

SCDHEC ISSUED

Asbestos ID Card

Logan Smith

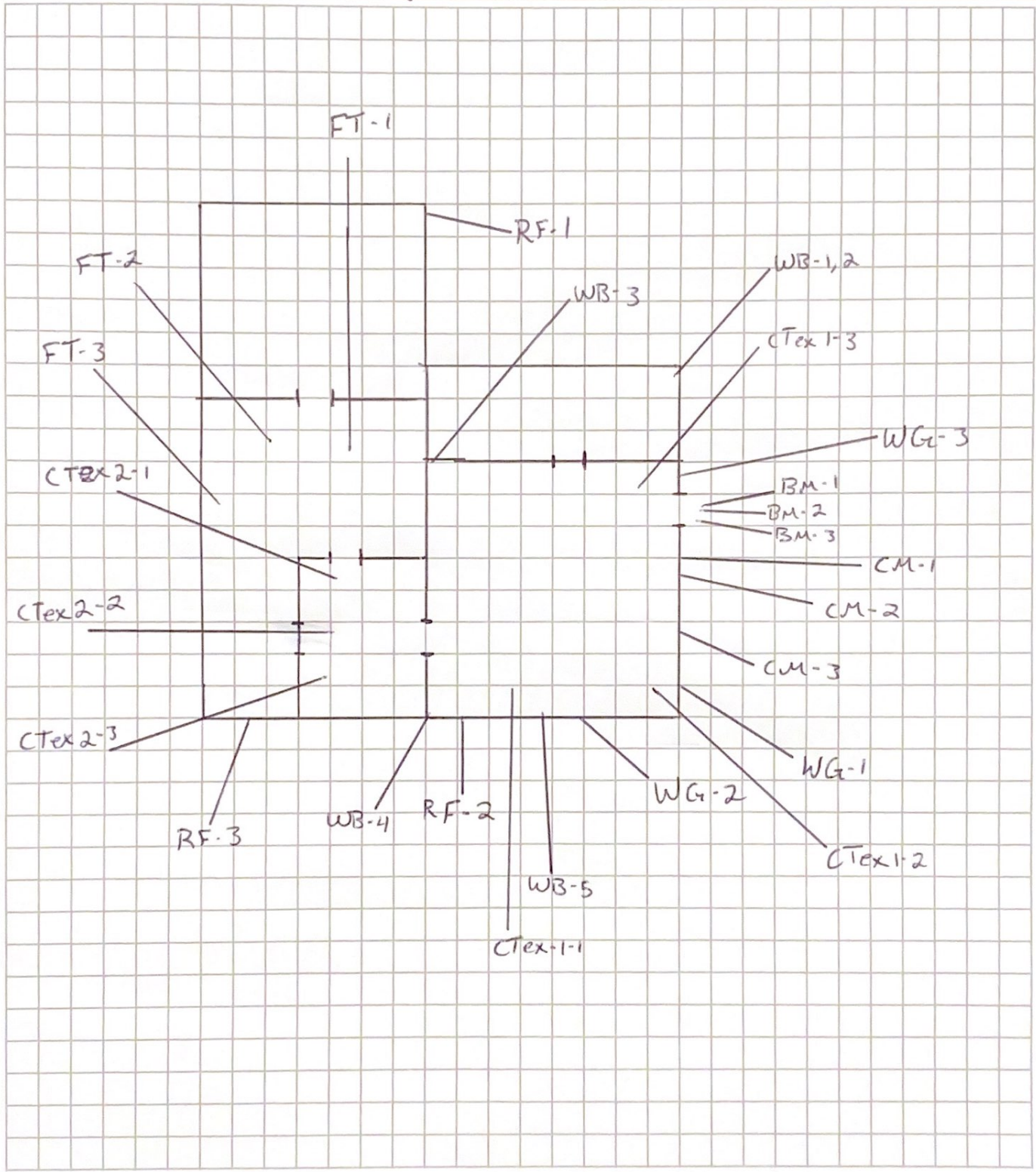


		Expiration Date:
AIRSAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

APPENDIX C
SUMMIT DOCUMENTATION



PREPARED BY: <i>IF</i>	DATE: 1/4/22	CHECKED BY:	DATE:	PROJECT NO: 0069.E0001
PROJECT NAME: West-End Neighborhood Demo - 2314 Winyah St.				SHEET NO ___ OF ___



SITE PHOTOGRAPHS



House structure



Inside of structure



**AHERA/NESHAP ASBESTOS PROJECT DESIGN
2405 WINYAH STREET
GEORGETOWN, SC**

CLIENT:

*City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440*

LOCATION:

*2405 Winyah Street
Georgetown, South Carolina 29440*

DATE OF DESIGN:

January 20, 2023

PREPARED BY:

Julian P. Lago

*Julian Lago
Environmental Staff Professional
SC DHEC AHERA Asbestos Project Designer PD-00202, Exp: 4/5/23*

*SUMMIT Engineering, Laboratory & Testing, INC. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
(843) 606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS PROJECT DESIGN

*2405 Winyah Street
Georgetown, South Carolina*

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1.0 DOCUMENT INTENT

This document represents the Asbestos Abatement Specifications for the abatement of Asbestos Containing Materials (ACMs) for 2405 Winyah Street, located in Georgetown, South Carolina. The CONTRACTOR shall be responsible for adhering to the Specifications contained in the Asbestos Abatement Specifications.

The Summary of Work is intended to limit the scope and locations of items of the Work included therein. It is not intended to limit the Scope of Work should plans, schedules or notes indicate an increased scope. Inadvertent omission of an item from its proper section of the Specifications and its inclusion in another section shall not relieve the CONTRACTOR of responsibilities for the item specified.

Project:

2405 Winyah Street, Georgetown, South Carolina

Consultant:

SUMMIT Engineering Laboratory & Testing, INC.

Julian Lago, Environmental Staff Professional

1539 Meeting Street - Suite A

Charleston, SC 29405

(843) 606-6268

SC DHEC AHERA Asbestos Project Designer No. PD-00202 Expiration Date: April 5, 2023

SC DHEC AHERA Asbestos Building Inspector No. BI-01697

SC DHEC AHERA Asbestos Management Planner No. MP-00262

SC DHEC AHERA Asbestos Air Sampler No. AS-00551

SC DHEC AHERA Asbestos Supervisor No. SA-02985

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The CONTRACTOR shall assume full responsibility and liability for compliance with all applicable federal, state and local regulations pertaining to work practices, hauling, disposal and protection of workers, visitors to the site, and persons occupying areas adjacent to the site.

The CONTRACTOR shall be responsible for inspecting the site prior to commencing work to confirm the scope of work. Any quantities listed by the designer in the plans, specifications or survey are so as approximations. The calculation and verification of actual quantities of materials to be encountered is the responsibility of the CONTRACTOR.

The CONTRACTOR has and assumes the responsibility of proceeding in such a manner that they offer their employees, the OWNER's representative, the CONSULTANT and any other authorized visitors, a workplace free of recognized hazards causing or likely to cause death or serious injury.

The CONTRACTOR will be responsible for all costs associated with employee monitoring to meet the OSHA requirements.

2.0 SCOPE OF WORK

Owner:

City of Georgetown

Project Location

All of the work described within this report will be conducted at the following location:

Location:

2405 Winyah Street, Georgetown, South Carolina

Project Type: Asbestos Abatement Specifications for the removal of the following materials prior to renovation. Estimated quantities of ACM to be abated include:

Asbestos Abatement:

- **Approx. 80 LF of window glazing (Class II – Non-Friable, Exterior)**

The project involves the removal and disposal of the above noted items.

The CONTRACTOR will be responsible for complete removal of the asbestos containing materials listed above in accordance with the project design.

Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges. The CONTRACTOR is responsible for selecting the appropriate respiratory protection for each work task and expected exposure to each employee.

The OWNER shall provide the following utility services for proper completion of the project: potable water and 110-volt electricity. The CONTRACTOR shall ensure that all electrical cords are connected to GFI devices. Hoses and cords not suspended shall be taped to the floor utilizing caution tape in high traffic areas. The OWNER shall allow the CONSULTANT the use of the power and water as necessary to complete the air monitoring during the entire course of the project.

3.0 SUMMARY OF WORK

A. Furnish all labor, materials, services, employee training and testing, permits, insurance (pertaining to asbestos abatement activity), tools and equipment necessary for safe completion of all work in accordance with all federal, state, local laws and regulations. The CONTRACTOR shall have complete understanding of all contract documents as supplied by CONSULTANT. Work shall include abatement activities defined below and as represented by the accompanying drawings. The CONTRACTOR is responsible for securing the job site and is solely responsible for their materials and equipment.

B. Abatement Work

1. **Location:**

2405 Winyah Street, Georgetown, South Carolina

Asbestos Abatement:

- **Approx. 80 LF of window glazing (Class II – Non-Friable, Exterior)**

Qualifications

The CONTRACTOR shall be licensed by the South Carolina Department of Health and Environmental Control (SC DHEC) to abate asbestos containing materials in the state of South Carolina. CONTRACTOR's employees shall be licensed by SC DHEC in their respective job/worker category.

4.0 DEFINITIONS

1. "Abatement" - Procedures to control fiber release from regulated asbestos-containing materials. This includes removal, enclosure, encapsulation, repair, and any associated preparation, clean up and disposal activities having the potential to disturb regulated asbestos-containing material.
2. "Adequately wet" - To sufficiently mix or penetrate with liquid to prevent the potential release of particulates. The absence of visible emissions is not sufficient evidence of being adequately wet.
3. "Aggressive clearance sampling" - A method of sampling which uses electric fan(s), electric leaf blower(s), and other devices to simulate vigorous activity in the abated area while air samples are being collected.
4. "AHERA" - Regulations developed pursuant to the Asbestos Hazard Emergency Response Act, 40 CFR Part 763, Asbestos Containing Materials in Schools (December 20, 1987).
5. "AIHA" - American Industrial Hygiene Association.
6. "Airlock" - A chamber which permits entrance and exit with minimum air movement between a contaminated area and an uncontaminated area, consisting of two doorways protected by two overlapping polyethylene sheets and separated by a sufficient distance such that one passes through one doorway into the chamber, allowing the doorway sheeting to overlap and close off the opening before proceeding through the second doorway. The airlock maintains a pressure differential between the contaminated and uncontaminated areas, thereby minimizing flow-through contamination further.
7. "Air sampler" - A person licensed by SC DHEC to implement air-monitoring plans and analysis schemes during abatement.
8. "Air sampling" - A method such as NIOSH 7400 for PCM, the OSHA Reference Method, 40 CFR 763 Appendix A for TEM, or an equivalent method accepted by SC DHEC used to determine the fiber content of a known volume of air during a specified period of time.
9. "Amended water" - Water to which a surfactant (for example, a non-sudsing detergent) has been added.
10. "Area air sampling" - Any form of air sampling whereby the sampling device is placed at a stationary location either inside or outside the regulated work area.
11. "Asbestos" - The asbestiform varieties of Serpentine (chrysotile), Riebeckite (crocidolite), Cummingtonite-Grunerite (amosite), Anthophyllite, and Actinolite-Tremolite.
12. "Asbestos Containing Material (ACM)" - Material containing asbestos of any type, either alone or mixed with other materials, in an amount greater than one percent (1%) as determined by using the method specified in 40 CFR Part 763, Appendix A, Subpart F, Section 1, as amended, or an accepted equivalent. (NOTE: "Appendix A to Subpart F" has been redesignated as, and shall hereinafter be referred to as, "Appendix E to Subpart E" - 60 FR 31917, June 19, 1995.)
13. "Asbestos containing waste materials" - As applied to demolition and renovation operations, this term includes regulated asbestos-containing waste materials and materials contaminated with asbestos, including disposable equipment and clothing.
14. "Asbestos project" - Any activity associated with abatement including inspection, design, air monitoring, in-place management, encapsulation, enclosure, renovation, repair, removal, any disturbance of regulated asbestos containing materials (RACM), and demolition of a facility.

15. "Asbestos project design" - A written or graphic plan prepared by an accredited project designer specifying how an asbestos abatement project will be performed that includes, but is not limited to, scope of work and technical specifications.
16. "ASHARA" - Regulations developed pursuant to 40 CFR Part 763, Subpart E, Appendix C Model Accreditation Plan, Asbestos School Hazard Abatement Reauthorization Act (November 28, 1992).
17. "Background monitoring" - Area sampling performed prior to abatement to obtain an index of existing airborne fiber levels under typical activity.
18. "Category I nonfriable asbestos containing material (ACM)" - Nonfriable asbestos or nonfriable asbestos-containing packing, gaskets, and resilient floor covering; and asphalt roofing products containing greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
19. "Category II nonfriable ACM" - Any material that cannot, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations, excluding Category I nonfriable ACM and containing greater than one percent (1%) asbestos as determined using the methods specified in 40 CFR Part 763, Appendix E, Subpart E, or an accepted equivalent.
20. "Clean room" - An uncontaminated area or room that is part of the decontamination enclosure system and that has provisions for storage of street clothing and protective equipment.
21. "Clearance monitoring" - Area air sampling performed using SC DHEC accepted aggressive clearance sampling techniques to determine the airborne concentrations of residual fibers upon conclusion of asbestos abatement.
22. "Contractor" - Any individual, partnership, corporation or other business concern that performs asbestos abatement but is not a permanent employee of the facility owner.
23. "Control measure" - Use of amended water, negative pressure differential equipment, encapsulant, high efficiency particulate air filtration device, glove bag or other state-of-the-art equipment designed to prevent fiber release into the air.
24. "Critical barrier" - At minimum, two independent layers of 6-mil plastic sheeting applied to any opening into a work area in a manner that creates a leak-tight seal within the work area to isolate vents, windows, doors, switches, outlets, and any other cavity or opening to the contaminated work area.
25. "Cut" - To penetrate with a sharp-edged instrument. This includes sawing, but may not include shearing, slicing, or punching.
26. "Decontamination enclosure system" - An enclosed area adjacent and connected to the regulated work area consisting of an equipment room, shower area, and clean room, each separated by airlocks, that is used for the decontamination of employees, materials, and equipment that are contaminated with asbestos.
27. "Demolition" - Wrecking or taking out any load-supporting structural member of a facility together with any related handling operations, the burning of any facility, or moving of a structure.
28. "SC DHEC" - The South Carolina Department of Health and Environmental Control.
29. "Encapsulation" - A form of abatement involving the treatment of regulated asbestos-containing material (RACM) with a liquid that covers the surface with a protective coating

- (bridging) or embeds fibers in an adhesive matrix (penetrating) to prevent the release of asbestos fibers.
30. "Enclosure" - A form of abatement involving placement of a leak-tight, impermeable, permanent barrier to prevent access to regulated asbestos-containing material and to prevent the release of asbestos fibers.
 31. "EPA" - United States Environmental Protection Agency.
 32. "Equipment room" - A contaminated area or room that is part of the decontamination enclosure system and that has provisions for the storage of contaminated clothing and equipment.
 33. "F/cc" - Fibers per cubic centimeter.
 34. "Friable" - Refers to ACM, which may, when dry, be crumbled, pulverized, or reduced to powder by the forces expected to act upon it in the course of demolition or renovation operations. This also refers to previously non-friable ACM after such material becomes damaged to the extent that when dry, can be or has been crumbled, pulverized, or reduced to powder.
 35. "Friable asbestos containing material" - Any material that, when dry, can be or has been crumbled, pulverized, or reduced to powder and contains greater than one percent (1%) asbestos as determined using the method specified in 40 CFR Part 763, Appendix E, Subpart E, as amended, or an accepted equivalent.
 36. "Goose neck" - Process for sealing the outer bag by twisting the opening of the bag, folding twisted portion of bag over, and creating a loop. Adequately secure the opening of the bag to the base of the twist, using duct tape.
 37. "Glovebag" - A sealed compartment with attached inner gloves used for the handling of asbestos containing materials. Information on glovebag installation, equipment and supplies, and work practices is contained in the Occupational Safety and Health Administration's (OSHA's) final rules on occupational exposure to asbestos, 29 CFR 1926.1101 (August 10, 1994), as amended, and any subsequent amendments or editions.
 38. "HEPA filter" - A high efficiency particulate air filter that will capture particles with an aerodynamic diameter of 0.3 micrometers with a minimum efficiency of 99.97 percent.
 39. "Homogeneous area" - Area of surfacing material, thermal system insulation material, or a miscellaneous material that is uniform in color or texture.
 40. "HVAC" - Heating, ventilation, and air conditioning.
 41. "In poor condition" - Refers to any ACM where the binding of the material is losing its integrity as indicated by peeling, cracking, or crumbling of the material.
 42. "Installation" - Any building or structure or any group of buildings or structures at a single demolition or renovation site that are under the control of a single owner or operator (or of owners or operators under common control).
 43. "Leak-tight" - Dust, solids, or liquids cannot escape or spill out.
 44. "License" - A document issued by SC DHEC that allows an asbestos abatement contractor, building inspector, project designer, management planner, air sampler, supervisor, worker, or other to engage in asbestos projects.
 45. "Manometer" - Instrument for the measurement of gas pressure whose units are represented in inches of water column.
 46. "Minor project" - A project where 25 or fewer square or linear feet of regulated asbestos-containing material (RACM) are removed, or where 10 or fewer cubic feet of RACM off a facility component are cleaned up.

47. "Movable object" - A structure within the work area that can be moved (e.g., chair, desk, etc.).
48. "Negative pressure differential equipment" - A portable exhaust system equipped with a HEPA filter.
49. "NESHAP" - National Emission Standards for Hazardous Air Pollutants, 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.
50. "NESHAP project" - An asbestos project which involves at least 160 square feet or 260 linear feet of regulated asbestos containing material (RACM), or 35 or more cubic feet of RACM off a facility component such that the area or length could not be measured prior to abatement. If several contemporaneous projects in the same area within the same building being performed by the same contractor are smaller than 160 square or 260 linear feet individually but add up to that amount, then the combination of the smaller projects shall be considered one NESHAP project.
51. "NIOSH" - National Institute for Occupational Safety and Health.
52. "OSHA" - Occupational Safety and Health Administration.
53. "Owner/operator" - Any person or contractor who owns, leases, operates, controls, or supervises a facility being demolished or renovated, or any person who operates, controls, or supervises the demolition or renovation operation, or both.
54. "Owner's representative" - A licensed supervisor, management planner, project designer, or air sampler designated by the facility owner to manage the asbestos project, and who serves to ensure that abatement work is completed according to specification and in compliance with all relevant statutes and regulations.
55. "Personal air sampling" - A method used to obtain an index of an employee's exposure to airborne fibers. Samples are collected outside the respirator in the worker's breathing zone.
56. "Project designer" - A person licensed by SC DHEC who is directly responsible for planning all phases of an asbestos abatement project design from project site preparation through complete disassembly of all abatement area barriers.
57. "Regulated area" - An area established by the owner/operator of an asbestos project to demarcate areas where asbestos abatement activities are conducted; any adjoining area where debris and waste from such asbestos work is stored; and any work area within which airborne concentrations of asbestos exceed, or there is a reasonable possibility they may exceed, the permissible exposure limit.
58. "Regulated asbestos-containing material (RACM)" - (a) Friable asbestos-containing material; (b) Category I nonfriable ACM that has become friable; (c) Category I nonfriable ACM that will be or has been subjected to sanding, grinding, cutting, drilling, or abrading; or (d) Category II nonfriable ACM that is likely to become 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.
59. "Removal" - Taking out RACM or facility components that contain or are covered with RACM from any facility.
60. "Renovation" - Altering a facility or one or more facility components in any way, including the stripping or removal of RACM from a facility component. Operations in which load-supporting structural members are wrecked or taken out are demolitions.
61. "Repair" - Returning damaged asbestos-containing material to an undamaged condition or to an intact state so as to prevent fiber release.

62. "Shower room" - A room located between the clean room and the equipment room in the decontamination enclosure system containing a shower with hot and cold or warm running water controllable at the tap.
63. "Start date" - The date printed on SC DHEC-issued asbestos abatement project license, which indicates when asbestos renovation or demolition operations, including any abatement activity having the potential to disturb RACM, will begin.
64. "Strip" - To remove RACM from any part of a facility or facility component.
65. "Structures per square millimeter" - Reporting measure for Transmission Electron Microscopy (TEM) Analysis. TEM clearance requires fewer than 70 structures per square millimeter (70s/mm²).
66. "Supervisor" - A person licensed by SC DHEC and designated as the contractor's representative to provide direct on-site supervision and guidance to workers engaged in abatement of RACM.
67. "Surfactant" - A chemical wetting agent added to water to improve penetration, such as a non-sudsing detergent.
68. "Variance" - Written SC DHEC approval for the use of alternative work practices at an asbestos project.
69. "Visible emissions" - Any emissions that are visually detectable without the aid of instruments that originate from RACM or asbestos-containing waste material or a regulated work area.
70. "Waste shipment record" - The shipping document, required to be originated, prepared, and signed by the waste generator, used to track and substantiate the disposition of asbestos-containing waste material.
71. "Wet cleaning" - The process of removing asbestos contamination from facility surfaces and objects by using cloths, mops, or other cleaning tools that have been dampened with amended water.
72. "Work area" - Designated rooms, spaces, or areas in which asbestos abatement activities are to be undertaken, or that may be contaminated as a result of such abatement activities.
73. "Worker" - A person licensed by SC DHEC to perform asbestos abatement under the direct guidance of an accredited and licensed supervisor.
74. "Working day" - Monday through Friday, including holidays that fall on any of the days Monday through Friday.

5.0 PROJECT COORDINATION

5.1 Action Plan

- A. Coordinate with OWNER/CONSULTANT to determine availability of facilities.
- B. Schedule abatement operations in the sequence required to obtain the best results where execution of one part of the Work depends on execution of other components, before or after its own execution.
- C. Where necessary, prepare memoranda for distribution to each party involved, outlining special procedures required for coordination. Include such items as SC DHEC notifications, surveys, notices, reports, CONTRACTOR lists, work schedules, and attendance at meetings.
- D. Prepare a plan of the procedures proposed for use in complying with the requirements of this specification. Include in the plan the location and layout of decontamination areas, the sequencing of asbestos work, and methods used to assure the safety of workers and visitors to the site. A disposal plan should include the location of the approved disposal site, a detailed description of the methods to be employed to control pollution, methods of removal to prohibit visible emissions, and packaging of removed asbestos debris.

5.2 Project Directory

- A. Develop and post a directory of all entities involved in the project. Include the CONTRACTOR'S principal staff assignments, including the Superintendent and other personnel in attendance at the site. Identify individuals, their duties and responsibilities. List business name, contact person, normal business and emergency telephone, pager and fax numbers, and addresses of:
 - 1. CONTRACTOR'S general superintendent, supervisory personnel, and CONTRACTOR'S home office
 - 2. Emergency services including but not limited to fire, ambulance, doctor, hospital, police, power company, telephone company, water company
 - 3. Local, state, and federal agencies with jurisdiction over the project.

5.2 Miscellaneous

- A. Workers are to dress appropriately when out of the construction area and in view of the public (e.g. street clothing unless involved in asbestos abatement activities). Workers are to decon and change into street clothes prior to exiting the sight barriers. Respirators shall remain in bags when not in use.
- B. No flames or flammable materials are to be used or brought into buildings. Solvents for the removal of resilient floor covering cutback adhesives must have a flashpoint greater than 140 degrees Fahrenheit.
- C. All electrical equipment shall utilize ground fault circuit interrupters (GFCI).
- D. The CONTRACTOR shall ensure an adequate number of fire extinguishers are on-site. A minimum of one fire extinguisher with a National Fire Protection Association rating of 10BC (dry chemical) shall be placed in each per 3,000 square feet of containment space or fraction thereof, of containment area. Each fire extinguisher shall be maintained in a fully charged and operable condition.
- E. SC DHEC licenses and accreditations, current fit test certification, current training/refresher certificates and medical surveillance documentation for each worker involved in the abatement work must be on-site and made available for review to the CONSULTANT and SC DHEC upon request.

6.0 SUBMITTALS

- A. Have a complete bound set of pre-job submittals prior to the start of work. Work is prohibited until submittal package has been reviewed and approved by the PROJECT DESIGNER or their Designee. A copy of the approved submittals shall be kept in a 3-ring binder (project log) by the CONTRACTOR at the project site in the Clean Room or in the on-site office of the CONTRACTOR.
1. Notifications: Where applicable, provide copies of the Asbestos Permit application and the notification for Demolition/Renovation, which provide written notice to all required agencies, including SC DHEC.
 2. Employee List: Provide copies of lists of Supervisors and Workers, along with their accreditation/license numbers.
 3. Medicals: Provide copies of current medical information indicating the employee has been medically cleared to wear respirator and perform the work outlined herein.
 4. Respirator Training: Copies of the most recent fit testing records, individually signed for each worker to be utilized on the project.
 5. Project schedule: Time schedule for the project, outlining the proposed start date, working hours and expected completion date.
 6. Initial Exposure Assessment: As required by the OSHA construction asbestos standard 29 CFR 1926.1101.
- B. Submit the following to the CONSULTANT upon the completion of the project:
1. All asbestos waste manifests within five (5) days of receipt from the landfill if not previously submitted.
 2. Copy of all notes, logs and reports maintained or prepared by the CONTRACTOR'S security personnel within five (5) days of project completion if not previously submitted.
- C. Emergency telephone numbers for the local fire department, police department, and emergency medical services shall be posted at the entrance to the Clean Room.

7.0 AIR MONITORING AND TEST LABORATORY SERVICES

A. QUALITY ASSURANCE

1. All environmental baseline and daily air monitoring will be performed in accordance with the procedures outlined in the latest edition of the National Institute for Occupational Safety and Health (NIOSH) 7400 Method and guidelines issued by Environmental Protection Agency regarding detection limits.

B. The OWNER has contracted CONSULTANT to perform all required perimeter and area air monitoring during the abatement process.

C. Samples shall be collected during abatement according to the following schedule: Background samples in the abatement area shall be collected prior to the CONTRACTOR starting. Daily air samples shall be collected during each 8-hour work shift. The daily air samples shall be collected a minimum 2.5-hours of every 4-hours worked, and not to exceed 4-hour intervals. Clearance samples shall only be collected after the area has passed final visual inspection by the Air sampler.

D. The CONTRACTOR shall be responsible for personnel monitoring of his employees as regulated by OSHA 1926.1101 and must be conducted by SC DHEC licensed personnel.

E. PHASE CONTRAST MICROSCOPY (PCM)

1. Exterior

PCM air samples outside of the work area will be obtained daily throughout the duration of the abatement to ensure public air space meets SC DHEC criteria.

The number and volume of air samples taken and analytical methods used by **SUMMIT** for sampling will generally be as follows:

Location Sampled	Scheduled Number of Samples	Minimum Volume (Liters)	Filter Media
Outside Work Area (Daily)	4	1,200	Mixed Cellulose Ester

The air monitoring shall be performed of the outside ambient air on each corner of the construction site (north, east, south and west).

Analysis: Asbestos fibers on each 0.8-micron filter will be measured using analysis per NIOSH 7400 counting rules A.

Fiber concentrations must be maintained below 0.1 f/cc at the edge of the regulated area.

8.0 REGULATED AREAS

Securing Work Area

- A. Secure work area from access by non-authorized personnel. Accomplish this, where possible, by constructing temporary barriers with signs and warning tape.

Demarcation of Regulated Area (Refer to Section 4.0)

Demarcate the Regulated Area with signs and barrier tape. Configure the Regulated Area to minimize the number of persons within the area and to protect persons outside the area from exposure to airborne concentrations of asbestos. Establish sight barriers utilizing black plastic sheeting inside the Regulated Area and post the Asbestos Signs so that they are out of public view.

- A. SIGNS
 1. Signs must be posted (in both English and Spanish) at all entrances to the Regulated Area, at least 20" x 14", with the legend:

**DANGER
ASBESTOS
MAY CAUSE CANCER
CAUSES DAMAGE TO LUNGS
AUTHORIZED PERSONNEL ONLY
RESPIRATORS AND PROTECTIVE CLOTHING
ARE REQUIRED IN THIS AREA**
- B. Post warning signs at each side of the building.
- C. Barrier tape must be used to establish the Regulated Area. Delineate the area with 3-inch wide polyethylene ribbon printed with the warning "CAUTION ASBESTOS REMOVAL". Install at a height of between three and four feet above the floor or ground level. The controlled access points shall be clearly marked with the signs required as noted above.
- D. General procedures
 1. Management of the Regulated Area is to be under the supervision of an OSHA Competent Person as described in Project Coordination.
 2. Do not allow eating, drinking, smoking, chewing tobacco or gum, or applying cosmetics in the Regulated Area.
 3. Before start of work, comply with requirements for worker protection in Respiratory Protection Section.

9.0 RESPIRATORY PROTECTION

General Requirements

Instruct and train each worker involved in asbestos abatement/demolition in proper respirator use and require that each worker always wear a respirator, properly fitted on the face in the Regulated Area from the start of any operation which may cause airborne asbestos fibers until the Regulated Area is completely decontaminated. Use respiratory protection appropriate for the fiber level encountered in the work place or as required for other toxic or oxygen-deficient situations encountered. Respiratory protection will not be required during preparation of the Negative Pressure Enclosures and Regulated Areas. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.

Standards

Except to the extent that more stringent requirements are written directly into the Contract Documents, the following regulations and standards have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith. Where there is a conflict in the regulations and standards, the more stringent requirement must be met.

1. SC DHEC REGULATION 61-86.1, STANDARDS OF PERFORMANCE FOR ASBESTOS PROJECTS
2. OSHA - U.S. Department of Labor Occupational Safety and Health Administration, Safety and Health Standards 29 CFR 1910, Section 1001 and Section 134 and 29 CFR 1926.1101.
3. ANSI - American National Standard Practices for Respiratory Protection, ANSI Z88.2-1990.
4. NIOSH - National Institute for Occupational Safety and Health

Non-permitted respirators - Do not use single use, disposable or quarter face respirators.

10.0 MATERIALS AND EQUIPMENT

Utilities

- A. The OWNER shall supply electricity (110V) and potable water.
- B. The CONTRACTOR shall supply GFCI for all electrical circuits.

Tools and Equipment

- A. Respirators
 - 1. Respiratory protection will not be required during preparation of NPE's or Regulated Areas.
 - 2. Minimum respiratory protection will be half-face air-purifying respirators equipped with HEPA cartridges.
 - 3. All respirators must be NIOSH approved.
- B. Protective clothing shall meet or exceed minimum protective clothing requirements of Title 29 CFR 1926.1101 and include full body disposable coveralls, disposable hood (separate or integral to coverall) and foot coverings (reusable footwear, 18-inch high boot type disposable foot coverings or foot coverings integral to coverall).
- C. Decontamination system for non-friable removals shall be 6-mil poly on the floor outside the enclosure (regulated area). Decontamination system for friable removals shall consist of a "clean room", a "shower room", and an "equipment room". Each room shall be separated from each other and the work area by a "Z" flap airlock (or non-friable materials that are rendered friable).
- D. Filtration systems for drain lines from showers or other water sources carrying asbestos contaminated water shall have disposable type primary and secondary filters and, if necessary, sump pump. Primary filter shall pass particles 20 microns and smaller; secondary filters, 5 microns and smaller.
- E. Miscellaneous Equipment
 - 1. Low pressure sprayer for amended water applications.
 - 2. First Aid Kit must be on-site and available at the clean room.

Materials

- A. For wetting prior to disturbance of Asbestos-Containing Materials, use either amended water or a removal encapsulant.
 - 1. Amended water must result in the retardation of fiber release equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50% polyoxethylene ester and 50% polyoxyethylene ether mixed with five gallons of water.
 - 2. Encapsulant shall be penetrating or bridging type designed to provide the same retardation of fiber release as the amended water in the above.
- B. Polyethylene sheeting shall be 'true' 6-mil OR with a dart impact of 270 grams, tear resistance of 512 grams, and transverse direction of 2067 grams (check manufacturer's specifications). Wall polyethylene sheeting must be 'true' 4 mil OR the equivalent dart impact. Width of sheeting must be the largest size possible to minimize seams, clear, frosted or black, as indicated. Disposal bags must meet the

- 'true' 6-mil requirement for disposal of ACM. Manufacturer's specifications must be on-site for any other thickness that 'true' 6-mil poly.
- C. Duct tape in 2" or 3" widths and spray cement formulated to stick aggressively to polyethylene sheeting.

11.0 WORK AREA CLEAN UP AND VERIFICATION

- A. Provide general clean-up of work area concurrent with the removal of all asbestos-containing materials. Do not permit accumulation of debris.

11.1 REMOVAL OF ASBESTOS-CONTAINING MATERIAL

Removal

Remove and properly dispose of all asbestos containing materials as specified in the Contact Documents in accordance with the methods and procedures outlined in the OSHA 29 CFR 1926.1101, 40 CFR Part 763, and 40 CFR 61, Subpart M, February 3, 1994, as amended, and any subsequent amendments or editions.

Maintain exposure levels below 0.1 fibers per cubic centimeter (f/cc) regardless of respiratory protection provided. The CONSULTANT'S PROJECT MANAGER reserves the right to order a cease in abatement activity should fiber counts exceed the PEL or visible emissions are observed until control measures are implemented to reduce fiber levels below the PEL and/or eliminate visible emissions.

A. Removal of ACM (Class II Work, Exterior).

The CONTRACTOR shall:

Remove the ACM in a non-friable manner. All ACM once removed shall be: thoroughly wet during stripping or removal and shall remain wet until disposed of, carefully lowered to the ground or floor, not dropped or thrown, and at no time shall the ACM to accumulate or become dry.

Assure that ACM from within the work area is not permitted outside of the work area except in sealed leak-tight containers.

Assure that any person exiting or any equipment or machinery being removed from the contaminated work area shall be thoroughly decontaminated. If equipment or machinery is not or cannot be thoroughly decontaminated, it shall be sealed in leak-tight containers. No visible residue shall appear on the outside surface of the container.

Air monitoring shall be performed during all abatement activities. Clearance shall consist of visual observation.

12.0 DISPOSAL OF ASBESTOS-CONTAINING WASTE MATERIAL

- A. Dispose of ACM and used plastic sheeting, tape, cleaning materials and disposable protective clothing as asbestos waste materials.
- B. Waste must be loaded, stored and transported in a 6 mil, poly-lined, rigid top truck or dumpster which can be locked or guarded from unauthorized access. Dumpster will remain closed and locked when not in use.
- D. Prepare for each load a SC DHEC Asbestos Waste Manifest and obtain signature on the waste manifest from the CONSULTANT'S PROJECT MANAGER prior to transporting waste.
- E. Dispose of asbestos waste in landfills approved by the EPA and/or the state as authorized disposal facilities for asbestos and operating in compliance with Title 40 CFR 61.156 at the time of disposal.
- F. Transport waste, accompanied by manifest, to an approved waste site for disposal as asbestos waste and provide the CONSULTANT'S PROJECT MANAGER a copy of manifest signed by the waste disposal facility representative.

Asbestos Inspection



**AHERA/NESHAP ASBESTOS INSPECTION REPORT
2405 WINYAH ST.
RESIDENTIAL PROPERTY**

CLIENT:

City of Georgetown
1134 North Fraser Street
Georgetown, SC 29440

LOCATION:

2405 Winyah St.
Georgetown, SC

DATE OF INSPECTION:

September 26, 2022

DATE OF REPORT:

November 7, 2022

PREPARED BY:

*Logan Smith
Environmental Staff Professional*

*SUMMIT Engineering, Laboratory & Testing, Inc. (SUMMIT)
1539 Meeting Street - Suite A
Charleston, SC 29405
843-606-6268*

SUMMIT Job No. 0069.E0001

AHERA/NESHAP ASBESTOS INSPECTION REPORT
2405 Winyah St., Georgetown, SC

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- 1.0 Site Location Map

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- B Asbestos Inspector’s License
- C SUMMIT Documentation

1.0 REPORT CERTIFICATION

SUMMIT is pleased to provide environmental consulting services for City of Georgetown. Please contact this office at 843-606-6268 with any questions or comments regarding the findings submitted in this report.

This document, entitled *AHERA/NESHAP Asbestos Inspection Report*, was prepared for City of Georgetown, and the South Carolina Department of Health and Environmental Control (SCDHEC) with sound practices and procedures and in accordance with Asbestos Hazard Emergency Response Act (AHERA), Title II of the Toxic Substance Control Act (TSCA), SCDHEC Regulation 61-86.1, 40 CFR 61, and 40 CFR 763 for Asbestos Containing Materials (ACM) guidance. The results obtained by the work documented in this report fulfill the requirements of federal, state, and local regulations regarding Asbestos Containing Materials.



11/7/2022

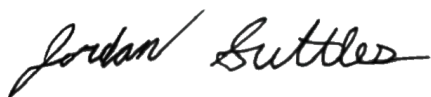
Logan Smith

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-02058
Expiration Date: November 16, 2022

SC DHEC AHERA Asbestos Air Sampler No. AS-00658
Expiration Date: December 9, 2022

SC DHEC AHERA Asbestos Supervisor No. SA-03626
Expiration Date: December 9, 2022



11/7/2022

Jordan Suttles

Date

SC DHEC AHERA Asbestos Building Inspector No. BI-002074
Expiration Date: February 1, 2023

SC DHEC AHERA Asbestos Air Sampler No. AS-000665
Expiration Date: February 17, 2023

SC DHEC AHERA Asbestos Supervisor No. SA-003673
Expiration Date: February 17, 2023

2.0 EXECUTIVE SUMMARY

On September 26, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2405 Winyah St., Georgetown, South Carolina.

One (1) dilapidated residential structure. The structure and sections of the ceiling have collapsed. The building is currently not occupied. The structure is likely a hazard to occupants. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is expected to be demolished.

A work practices variance may be required in order to abate the structure using alternate methods. The variance may be requested from SC DHEC by the abatement contractor to accomplish this. Additional requirements usually involve a letter of structural condemnation by an official, and an asbestos project design in order to abate using demo with RACM (Regulated Asbestos Containing Materials).

The purpose of this inspection was to investigate available records for the specification of asbestos containing material (ACM), inspect for suspect materials, sample, and analyze suspect materials to test for asbestos, and assess the condition and location of the ACM and other characteristics of the structure.

A homogeneous material is a material that appears to be uniform when properties such as age, color, and texture are compared. Seven (7) homogeneous areas were sampled. The homogeneous areas are described in detail in section 3.0 of this report.

The following Asbestos Containing Materials (ACMs) were identified within the structure:

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.0 SUSPECT MATERIALS

3.1 Roofing Material

RF-1, 2 AND 3

The roofing material were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.2 Brick and Mortar

BM-1, 2 AND 3

The brick and mortar were sampled from the exterior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.3 Window Glazing

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.4 Ceiling Texture

CTEX-1, 2 AND 3

The interior ceiling texture was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a friable, surfacing material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.5 Wallboard

WB-1, 2 AND 3

The wallboard was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a friable, miscellaneous material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.6 Flooring

FT-1, 02 AND 03

The flooring material was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

3.7 Joint Compound

JC-1, 2, 3, 4 and 5

The joint compound was sampled from the interior of the structure. The results indicated that the material is not classified as an Asbestos Containing Material (ACM). The material is classified as a friable, surfacing material and is in damaged condition with a high potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

4.0 SUSPECT MATERIAL QUANTITIES

Summary of Suspect Material Quantities:

SUSPECT MATERIAL	ACM (Y/N)	AMOUNT
ROOFING MATERIAL	N	3,000 SF
BRICK AND MORTAR	N	3,000 SF
WINDOW GLAZING	Y	80 LF
CEILING TEXTURE	N	1,000 SF
WALLBOARD	N	800 SF
FLOORING	N	600 SF
JOINT COMPOUND	N	1,100 SF

Quantities: SF = Square Feet, LF = Linear Feet, CF = Cubic Feet

Note 1: ACM = Material containing asbestos of any type, in an amount greater than 1%

Note 2: All quantities are estimated and should not be used for bidding purposes

5.0 CONCLUSIONS AND RECOMMENDATIONS

On September 26, 2022, SUMMIT Engineering, Laboratory & Testing, Inc. (**SUMMIT**) performed an AHERA/NESHAP Asbestos Inspection for 2405 Winyah St., Georgetown, South Carolina.

One (1) dilapidated residential structure. The structure and sections of the ceiling have collapsed. The building is currently not occupied. The structure is likely a hazard to occupants. The detailed map showing sample locations throughout the structure can be found in SUMMIT Documentation. The structure is expected to be demolished.

A work practices variance may be required in order to abate the structure using alternate methods. The variance may be requested from SC DHEC by the abatement contractor to accomplish this. Additional requirements usually involve a letter of structural condemnation by an official, and an asbestos project design in order to abate using demo with RACM (Regulated Asbestos Containing Materials).

The following Asbestos Containing Materials (ACMs) were identified within the structure:

WG-1, 2 AND 3

The window glazing was sampled from the exterior of the structure. The results indicated that the material is classified as an Asbestos Containing Material (ACM). The material contains 2% Chrysotile and there is approximately 80 LF of the material. The material is classified as a non-friable, miscellaneous material and is in good condition with a low potential for damage. The sample analysis of the material is enclosed in Appendix A. A detailed map showing the locations of the sampling locations can be found in the SUMMIT Documentation.

If the structure is to be renovated or demolished, a copy of this report and a notification of demolition or renovation forms must be submitted to The South Carolina Department of Health and Environmental Control (SCDHEC) at least ten working days prior to these activities taking place.

Bidders are responsible for their own calculations and estimates of quantities. Actual quantities may be more or less than indicated. Though every effort was made to examine wall cavities and other areas for pipe insulation, spray-applied or trowel applied miscellaneous material or other miscellaneous materials and other Presumed Asbestos Containing Material (PACM), this survey and report only deals with accessible areas of the building. There may be additional inaccessible areas above ceiling, behind walls and below floors that become evident during demolition or renovation activities. If suspect materials are found, additional asbestos testing may be required.

FIGURES

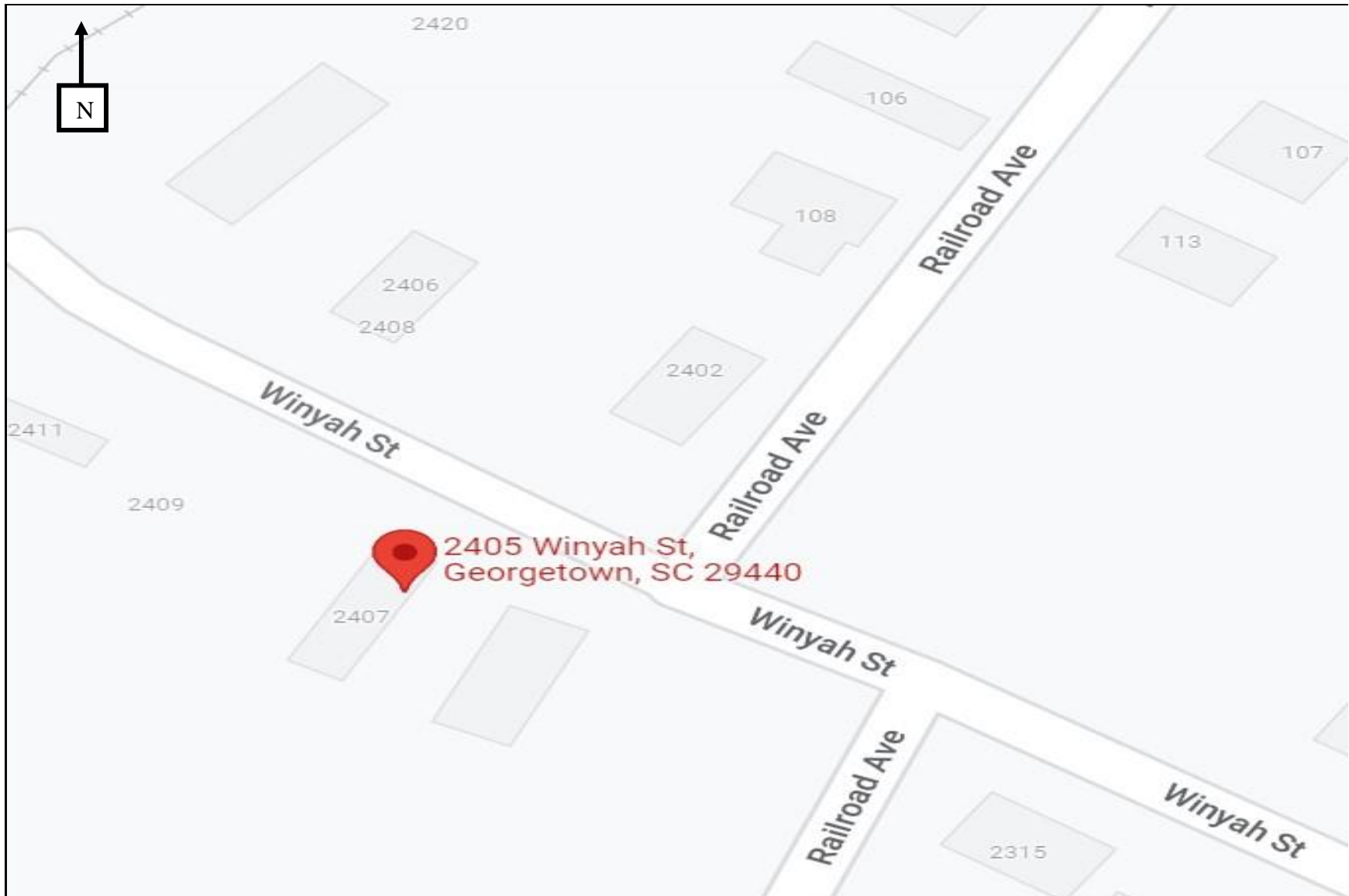


Figure 1
Site Location Map

2405 Winyah Street
Georgetown, South Carolina



SUMMIT ELT, Inc.
Project: 0069.E0001

APPENDIX A
ANALYTICAL RESULTS



Asbestos Laboratory Report

Prepared for

Summit ELT, Inc.

Project: 2405 Winyah St.

Summit #: 2022-9-29-0069.E0001

Date Analyzed: 10/3/2022

Date Reported: 10/3/2022

Total Samples Analyzed: 17

Samples >1% Asbestos: 1

Method of Analysis: EPA 600/R-93/116/M4-82/020



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
 Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022

Date Analyzed: 10/3/2022

Date Reported: 10/3/2022

Project : 2405 Winyah St

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
RF-1 2022-9-29-0069.E0001-1	Roofing Material	Black, Orange Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
RF-2 2022-9-29-0069.E0001-2	Roofing Material	Black, Orange Fibrous Homogeneous	5% Glass	95% Non-fibrous (other)	None Detected
BM-1-Brick 2022-9-29-0069.E0001-3	Brick and Mortar	Dark Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-1-Mortar 2022-9-29-0069.E0001-3A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Brick 2022-9-29-0069.E0001-4	Brick and Mortar	Dark Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-2-Mortar 2022-9-29-0069.E0001-4A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Brick 2022-9-29-0069.E0001-5	Brick and Mortar	Dark Red Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
BM-3-Mortar 2022-9-29-0069.E0001-5A	Brick and Mortar	Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
WG-1 2022-9-29-0069.E0001-6	Window Glazing	White, Beige Fibrous Homogeneous		98% Non-fibrous (other)	2% Chrysotile
WG-2 2022-9-29-0069.E0001-7	Window Glazing				Positive stop (not analyzed)
WG-3 2022-9-29-0069.E0001-8	Window Glazing				Positive stop (not analyzed)
Ctex-1 2022-9-29-0069.E0001-9	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-2 2022-9-29-0069.E0001-10	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
Ctex-3 2022-9-29-0069.E0001-11	Ceiling Texture	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



Summit Laboratories

3575 Centre Circle, Fort Mill, SC 29715 Summit Order: 2022-9-29-0069.E0001
Phone: (704) 504-1717

Summit ELT, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Date Received: 9/29/2022
Date Analyzed: 10/3/2022
Date Reported: 10/3/2022

Project : 2405 Winyah St

Test Report: Asbestos Analysis of Bulk Material via EPA 600/R-93/116 Method using Polarized Light Microscopy

Sample ID	Description	Appearance	Non-Asbestos		Asbestos
			% Fibrous	% Non-Fibrous	% Asbestos
WB-1 2022-9-29-0069.E0001-12	Wallboard	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-2 2022-9-29-0069.E0001-13	Wallboard	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
WB-3 2022-9-29-0069.E0001-14	Wallboard	Gray, Beige Fibrous Homogeneous	10% Cellulose	90% Non-fibrous (other)	None Detected
FT-1 2022-9-29-0069.E0001-15	Floor Tile	Beige, Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
FT-2 2022-9-29-0069.E0001-16	Floor Tile	Beige, Gray Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
JC-1 2022-9-29-0069.E0001-17	Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
JC-2 2022-9-29-0069.E0001-18	Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
JC-3 2022-9-29-0069.E0001-19	Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
JC-4 2022-9-29-0069.E0001-20	Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected
JC-5 2022-9-29-0069.E0001-21	Joint Compound	White Non-fibrous Homogeneous		100% Non-fibrous (other)	None Detected



METHOD: EPA 600/R-93/116/M4-82/020

For samples easily separated into homogeneous layers, each component will be analyzed separately. The sample may not be representative of the larger material in question. Interpretation and use of test results are the responsibility of the client. Due to the limitations of the EPA 600 Method, nonfriable organically bound materials (NOBs) such as vinyl floor tiles, mastic and roofing can be difficult to analyze by PLM. Reanalysis by Transmission Electron Microscopy (TEM) to verify results of <1% or None Detect for these materials is recommended. Results relate only to the items received by the laboratory as noted on the Chain of Custody.

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Analyst(s): 
Cass E. Rupert

Approved By: 
Maria Cao,
Approved Signatory

Summit Laboratories, 3575 Centre Circle, Fort Mill, SC 29715, Phone: (704) 504-1717



CHAIN OF CUSTODY

LAB USE ONLY:
Summit Order Number: 2022-9-29-0069.E0001

2520 Whitehall Park Rd – Suite 250,
Charlotte, NC 28273
Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION	
Company:	Job Contact: L. Smith/ A. Monk
Address:	Email: lsmith@summit-companies.org
	Tel:
	Fax:
Project Name: W.F.N. - 2405 Winyah St.	State Collected In: SC
Project ID #: 0069.E0001	

Bill to: Same Different – If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS: Scud to CEF for TEM		<input checked="" type="checkbox"/>	Accept Samples
		<input type="checkbox"/>	Reject Samples
Relinquished By:	Date/Time	Received By:	Date/Time
<i>L. Smith</i>	9.28.22	FedEx <i>Matthew Lutz</i>	9.28.22
			9-29-22 12:30

Samples will be disposed of 60 days after analysis



CHAIN OF CUSTODY

LAB USE ONLY:

Summit Order Number: 2022-10-31-0069.E0001

3575 Centre Circle, Fort Mill, SC 29715
Tel: 704-504-1717; Fax: 704-504-1125

COMPANY CONTACT INFORMATION	
Company: Summit ELT	Job Contact: A. Monk
Address: 1539 Meeting Street - Suite A	Email: amonk@summit-companies.com
Charleston, SC 29405	Tel: 704-965-9235
	Fax:
Project Name: 2405 Winyah	State Collected In: SC
Project ID #: 0069.E0001	

Bill to: Same Different - If Bill to is different please notate in the comments section.

ASBESTOS	METHOD	TURN AROUND TIME						
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY	2 Week
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM Point Count (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	EPA NOB / Chatfield	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	AHERA 40 CFR, Part 763	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM Dust Wipe	ASTM D6480	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
POSITIVE STOP ANALYSIS: <input checked="" type="checkbox"/>								
IF TURNAROUND TIME IS NOT MARKED STANDARD 5 DAY APPLIES								

By submitting samples, you are agreeing to Summit's Terms and Conditions

COMMENTS:		<input checked="" type="checkbox"/> Accept Samples
		<input type="checkbox"/> Reject Samples
Relinquished By:	Date/Time	Received By:
<i>Julian Lago</i>	10/28/22	<i>[Signature]</i>
		Date/Time
		10/28/22 1100

Samples will be disposed of 60 days after analysis

October 5, 2022

SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

CLIENT PROJECT: 2405 Winyah St., 0069.E0001
LAB CODE: ST220236

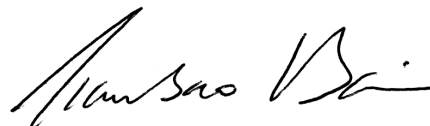
Dear Customer:

Enclosed are asbestos analysis results for TEM bulk samples received at our laboratory on September 29, 2022. The samples were analyzed for asbestos using transmission electron microscopy (TEM) per Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method.

Sample results containing > 1% asbestos are considered asbestos-containing materials (ACMs) per the EPA regulatory requirements. The detection limit for the TEM Chatfield/EPA 600/R-93/116 Sec. 2.5.5.1 method is <1% depending on the processed weight and constituents of the sample.

Thank you for your business and we look forward to continuing good relations.

Kind Regards,



Tianbao Bai, Ph.D., CIH
Laboratory Director



CEI

ASBESTOS ANALYTICAL REPORT
By: Transmission Electron Microscopy

Prepared for

SUMMIT Engineering, Laboratory & Testing, Inc.

CLIENT PROJECT: 2405 Winyah St., 0069.E0001

LAB CODE: ST220236

TEST METHOD: Bulk Chatfield
EPA 600 / R93 / 116 Sec. 2.5.5.1

REPORT DATE: 10/05/22



CEI

ASBESTOS BULK ANALYSIS

By: TRANSMISSION ELECTRON MICROSCOPY

Client: SUMMIT Engineering, Laboratory & Testing, Inc.
3575 Centre Circle
Fort Mill, SC 29715

Lab Code: ST220236
Date Received: 09-29-22
Date Analyzed: 10-05-22
Date Reported: 10-05-22

Project: 2405 Winyah St., 0069.E0001

TEM BULK CHATFIELD / EPA 600 / R93 / 116 Sec. 2.5.5.1

Client ID Lab ID	Material Description	Sample Weight (g)	Organic Material %	Acid Soluble Material %	Acid Insoluble Material %	Asbestos %
RF-3 ST01595	Roofing Shingle	0.5239	25.1	39.4	35.5	None Detected
WG-3 ST01596	Window Glaze			Cancelled Per Client		
FT-3 ST01597	Flooring	0.4626	36.9	61.8	1.3	None Detected

LEGEND: None

METHOD: CHATFIELD & EPA/600/R-93/116 Sec. 2.5.5.1

LIMIT OF DETECTION: Varies with the weight and constituents of the sample (<1%)


REGULATORY LIMIT: >1% by weight

This report relates only to the samples tested or analyzed and may not be reproduced, except in full, without written approval by Eurofins CEI. Eurofins CEI makes no warranty representation regarding the accuracy of client submitted information in preparing and presenting analytical results. Interpretation of the analytical results is the sole responsibility of the client. *Estimated measurement of uncertainty is available on request.* Samples were received in acceptable condition unless otherwise noted.

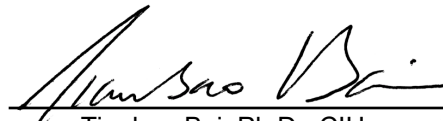
Information provided by customer includes customer sample ID, location, volume and area as well as date and time of sampling.

Eurofins CEI recommends between 0.500 and 0.200 grams of sample material. *Any weight below 0.100 grams is considered below protocol guidelines.*

ANALYST: _____


Stacy Ulrich

APPROVED BY: _____


Tianbao Bai, Ph.D., CIH
Laboratory Director



Eurofins Built Environment CEI
 2752 Pleasant Road, Suite 100A
 Fort Mill, SC 29708
 Tel: 866-481-1412; Fax: 919-481-1442

CEI

CHAIN OF CUSTODY

LAB USE ONLY:
ECEI Lab Code: <i>ST 220236</i>
ECEI Lab I.D. Range:

3

COMPANY INFORMATION	PROJECT INFORMATION
ECEI CLIENT #:	Ce: Maria Cao
Company: Summit ELT	Email / Tel: mcao@summit-companies.com
Address: 3575 Centre Circle	Project Name: 2405 Winyah St.
	Project ID#: 0069.E0001
Email: envirolabs@summit-companies.com	PO #:
Tel: 704.504.1717 Fax:	STATE SAMPLES COLLECTED IN: SC

IF TAT IS NOT MARKED STANDARD 3 DAY TAT APPLIES.

ASBESTOS	METHOD	TURN AROUND TIME					
		4 HR	8 HR	1 DAY	2 DAY	3 DAY	5 DAY
PLM BULK	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (400)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM POINT COUNT (1000)	EPA 600	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM GRAV w POINT COUNT	EPA 600		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PLM BULK	CARB 435		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
PCM AIR*	NIOSH 7400	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	EPA AHERA	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	NIOSH 7402	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR (PCME)	ISO 10312	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM AIR	ASTM 6281-15	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM BULK	CHATFIELD		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>
TEM DUST WIPE	ASTM D6480-05 (2010)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM DUST MICROVAC	ASTM D5755-09 (2014)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM SOIL	ASTM D7521-16			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM VERMICULITE	CINCINNATI METHOD			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
TEM QUALITATIVE	IN-HOUSE METHOD		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
OTHER:		<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

*Blanks should be taken from the same sample lot as field samples.

REMARKS / SPECIAL INSTRUCTIONS: Please only analyze the layers listed on the COC Please CC: <i>envirolab@summit-companies.com</i> on the results		<input checked="" type="checkbox"/> Accept Samples <input type="checkbox"/> Reject Samples	
Relinquished By:	Date/Time	Received By:	Date/Time
<i>Matthew Sule</i>	9/29/2022	<i>MA</i>	<i>4:50 9/29</i>

By submitting samples, you are agreeing to ECEI's Terms and Conditions.
Samples will be disposed of 30 days after analysis



SAMPLING FORM

CEI

COMPANY CONTACT INFORMATION	
Company: Summit ELT, P.C.	Job Contact: Logan Smith/A. Monk
Project Name: 2405 Winyah St.	lsmith@summit-companies.com
Project ID #: 0069.E0001	Tel:

SAMPLE ID#	DESCRIPTION / LOCATION	VOLUME/ AREA	TEST	
			PLM	TEM
RF-3	roofing shingle		<input type="checkbox"/>	<input checked="" type="checkbox"/>
WG-3	window glaze		<input type="checkbox"/>	<input checked="" type="checkbox"/>
FT-3	flooring		<input type="checkbox"/>	<input checked="" type="checkbox"/>

APPENDIX B
ASBESTOS LICENSES

SCDHEC ISSUED

Asbestos ID Card

Logan Smith



		Expiration Date:
AIRSAMPLER	AS-000658	12/09/22
CONSULTBI	BI-002058	11/16/22
SUPERAHERA	SA-003626	12/09/22

SCDHEC ISSUED

Asbestos ID Card

Jordan Suttles



		Expiration Date:
AIRAMPLER	AS-000665	02/17/23
CONSULTBI	BI-002074	02/01/23
SUPERAMERA	SA-003673	02/17/23

APPENDIX C
SUMMIT DOCUMENTATION

PREPARED BY:
LS

DATE:
10.28.22

CHECKED BY:

DATE:

PROJECT NO:

0069.E0001

PROJECT NAME: West-End Demolition
2405 Winyah Street

SHEET NO

OF

