Invitation to Bid

ITB 16-06 Demolition of the Theater at Brook Run Park

The City of Dunwoody is soliciting competitive sealed bids from qualified contractors for **Demolition of the Theater Building at Brook Run Park** for the Department of Parks and Recreation.

Bids should be typed or submitted in ink and returned in a sealed container marked on the outside with the ITB# and Company Name. Bids will be received until 2:00 P.M. local time on August 23, 2016 at the City of Dunwoody, 41 Perimeter Center East, Suite 250, Dunwoody, Georgia 30346. Any bid received after this date and time will not be accepted. Bids will be publicly opened and read at 2:05 P.M. Apparent bid results will be available the following business day on our website www.dunwoodyga.gov.

A **Pre-Bid Conference will be held at 10:00 am on August 3, 2016** at the Brook Run Theater facility, 4770 North Peachtree Road, Dunwoody, GA 30346. The conference will include a review of the Bid Documents, tour of the building and a question and answer period. Attendance at the Pre-Bid Conference is strongly encouraged, but it is not required. Bidders are expected to be familiar with the Bid Documents and to provide the City with any questions regarding the Bid Documents at the Pre-Bid conference or by the deadline for questions to be submitted.

Questions regarding bids should be directed to John Gates, Purchasing Manager, at purchasing@dunwoodyga.gov no later than August 5, 2016. Bids are legal and binding upon the bidder when submitted. All bids should be submitted in duplicate.

The written bid documents supersede any verbal or written prior communications between the parties.

Award will be made to the supplier submitting the lowest responsive and responsible bid. The City reserves the right to reject any or all bids to waive technicalities and to make an award deemed in its best interest. Bids may be split or awarded in entirety. The City reserves the option to negotiate terms, conditions and pricing with the lowest responsive, responsible bidder(s) at its discretion.

All companies submitting a bid will be notified in writing of award.

We look forward to your bid and appreciate your interest in the City of Dunwoody.

John Gates Purchasing Manager

SCOPE OF SERVICES

The purpose of this Invitation to Bid (ITB) is to select a qualified contractor for the demolition and removal of two (2) structures from Brook Run Park. These structures are designated as the Theater Building and the Pump Room/Chiller on the provided site plan and environmental test correspondence. All Stain Glass will be removed prior to demolition and is not a responsibility of the contractor.

The contractor will furnish all labor, materials, equipment, and all things necessary for demolition and disposal of the two structures including:

- Asbestos abatement
- Mitigation of other hazardous and non-hazardous materials
- Site security and safety
- Structure demolition
- Foundation removal
- Utilities disconnected
- Debris removal
- Site grading
- Seeding
- Erosion Control
- Other incidental items as necessary

PART 1 PROTECTION

1.1 Existing Facilities: Protect adjacent park areas during demolition operations. Maintain exits from existing buildings.

1.2 Existing Utilities: Locate and mark all utilities within the affected area.

1.2.1 Arrange to shut off service for affected utilities.

1.2.2 Disconnect, seal or cap off utilities serving buildings and structures to be demolished.

1.2.2.1 If removal, relocation, or abandonment of utility services will affect adjacent occupied buildings, then provide temporary utilities that bypass buildings and structures to be demolished and that maintain continuity of service to other buildings and structures.

1.2.2.2 Cut off pipe or conduit a minimum of 24 inches (610 mm) below grade. Cap, valve, or plug and seal remaining portion of pipe or conduit after bypassing according to requirements of authorities having jurisdiction.

1.2.2.3 Remove all disconnected power lines and power poles from the demolition area.

1.3 Temporary Protection: Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction and as indicated.

1.3.1 Protect adjacent buildings and facilities from damage due to demolition activities.

1.3.2 Protect existing site improvements, appurtenances, and landscaping to remain.

1.3.3 Erect a plainly visible tree fence around drip line of individual trees or around perimeter drip line of groups of trees to remain.

1.3.4 Install and maintain erosion control devices as indicated on the Erosion and Sediment Control Plan.

1.3.5 Erect temporary security fencing to prevent site access by the public during demolition.

1.3.6 Provide temporary barricades and other protection required to prevent injury to people and damage to adjacent buildings and facilities to remain.

1.3.7 Provide protection to ensure safe passage of people around building demolition area and to and from occupied portions of adjacent buildings and structures.

1.3.8 Protect walls, windows, roofs, and other adjacent exterior construction that are to remain and that are exposed to building demolition operations.

1.3.9 Erect and maintain dustproof partitions and temporary enclosures to limit dust, noise, and dirt migration to occupied portions of adjacent buildings.

1.3.10 Remove temporary barriers and protections where hazards no longer exist. Where open excavations or other hazardous conditions remain, leave temporary barriers and protections in place.

2 ASBESTOS ABATEMENT

2.1 RELATED DOCUMENTS

Asbestos-containing building materials (ACBMs) were identified by GEOHydro Inc. in an Asbestos Survey Report dated January 23, 2014 and addendum report dated March 8,2016 is included as Attachment A.1 and A.2 and a Phase I Environmental Study and Limited Sampling and Testing completed by Matrix Engineering Group dated February 5, 1998 is included as Attachment B . A Demolition Plan is also included as Attachment C

2.2 WORK IDENTIFICATION

2.2.1 Summary of Work: Attachment A is included as a description of asbestos-containing materials found to be present in the Dorm Building. It is the Asbestos Abatement Contractor's responsibility to determine actual quantities prior to bid submittal. The Scope of Work includes removal of all asbestos-containing materials including but not necessarily limited to, removal and disposal of items identified in Attachment A.

2.2.2 The Asbestos Contractor is responsible for verifying Site conditions prior to bid submittal.

2.3 SPECIAL REPORTS

2.3.1 Reporting Unusual Events: When an event of unusual and significant nature occurs at site (examples: failure of negative pressure system, rupture of temporary enclosures, emergencies, etc.), prepare and submit a field report to the owner.

2.3.2 Reporting Accidents: Prepare reports of significant accidents at the site and submit to the Owner. For this purpose, a significant accident is defined to include events where personal injury is sustained, or property loss of substance is sustained, or where the event posed a significant threat of loss or personal injury.

2.4 TERMINOLOGY

The following commonly used terms are defined in the context of these specifications.

2.4.1 Abatement: Procedures to control or decrease fiber release from asbestos-containing building materials or insulation material containing asbestos. Includes removal, enclosure, and encapsulation.

2.4.2 Aggressive Sampling: Air monitoring samples collected while a leaf blower, fans, or other such devices are used to generate air turbulence within the work area.

2.4.3 Air Lock: A system for permitting ingress or egress to the work area while permitting minimal air movement between a contaminated area and an uncontaminated area, typically consisting of two curtained doorways placed a minimum of three feet apart.

2.4.4 Air Monitoring: The process of measuring the fiber content of a specific volume of air in a stated period of time. Personal air sampling results shall be calculated to reflect the employee's eight-hour time weighted average (TWA) exposure. Area sampling results are reported directly, without calculating the TWA.

2.4.5 Amended Water: Water to which a surfactant has been added to decrease the surface tension to 35 or less dynes.

2.4.6 Asbestos: The asbestiform varieties of serpentine (chrysotile), riebeckite (crocidolite), cummingtonite-grunerite (amosite), anthophyllite, and actinolite-tremolite. For purposes of determining respiratory and worker protection both the asbestiform and non-asbestiform varieties of the above minerals and any of these materials that have been chemically treated and/or altered shall be considered as asbestos.

2.4.7 Asbestos Consultant: The Asbestos Consultant is the Owner’s representative authorized to perform work related to asbestos air monitoring, contractor observation and PCM analysis.

2.4.8 Asbestos-Containing Material (ACM): Any material containing more than 1% by weight of asbestos of any type or mixture of types.

2.4.9 Asbestos-Containing Building Material (ACBM): Surfacing ACM, thermal system insulation ACM, or miscellaneous ACM that is found in or on interior and exterior structural members or other parts of a building.

2.4.10 Asbestos-Containing Waste Material: Any material which is or is suspected of being or any material contaminated with an asbestos-containing material which is to be removed from a work area for disposal.

2.4.11 Asbestos Debris: Pieces of ACBM that can be identified by color, texture, or composition, or means dust if determined by an accredited inspector to be ACM.

2.4.12 Asbestos Removal Encapsulant: A chemical solution used in place of amended water during asbestos removal to penetrate, bind, and encapsulate the asbestos-containing material.

2.4.13 Barrier: Any surface that seals off the work area to inhibit the movement of air.

2.4.14 Breathing Zone: A hemisphere forward of the shoulders with a radius of approximately 6 to 9 inches.

2.4.15 Class I and Class II Asbestos Work: Work as defined by OSHA in Standard 29 CFR 1926.1101(b).

2.4.16 Curtained Doorway: A device to allow ingress or egress from one room to another while permitting minimal air movement between the rooms.

2.4.17 Decontamination Enclosure System: A series of connected rooms for the decontamination of workers (a Personnel Decontamination Enclosure System) or of materials and equipment (Equipment Decontamination Enclosure System).

2.4.18 Disposal Bags: Properly labeled 6-mil thick leak-tight plastic bags used for transporting asbestos waste from regulated area to the disposal site.

2.4.19 Equipment Decontamination Enclosure System: A decontamination system for waste materials and equipment, typically consisting of a designated area of the work area, a washroom, and a holding area, with an air lock between any two adjacent rooms and a curtained doorway between the holding area and the non-work area. Not to be used for personnel entry/exit.

2.4.20 Encapsulant (Sealant): A liquid material which can be applied to ACM and which controls the possible release of asbestos fibers from the material, either by creating a membrane over the surface (bridging encapsulant) or by penetrating into the material and binding its components together (penetrating encapsulant).

2.4.21 Encapsulation: Application of an encapsulant to asbestos-containing building materials to control the possible release of asbestos fibers into the ambient air.

2.4.22 Friable ACM: A term as defined in CFR 40 Part 61, Subpart M and EPA 340/1-90-018 that means any material containing more than 1 percent asbestos as determined using the method specified in CFR

40 Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that when dry, can be crumbled, pulverized, or reduced to powder by hand pressure.

2.4.23 HEPA Filter: A High Efficiency Particulate Air (HEPA) filter capable of trapping and retaining 99.97% of asbestos fibers 0.3 microns in diameter.

2.4.24 Nonfriable ACM: A term as defined in CFR 40 Part 61, Subpart M and EPA 340/1-90-018 that means any material containing more than 1 percent asbestos as determined using the method specified in CFR 40 Part 763, Appendix A, Subpart F, Section 1, Polarized Light Microscopy, that, when dry, cannot be crumbled, pulverized or reduced to powder by hand pressure.

2.4.25 Personnel Decontamination Enclosure System: A decontamination system for personnel and limited equipment, typically consisting of an equipment room, shower room, and clean room, with an air lock between any two adjacent rooms, and a curtained doorway between the equipment room and the vbv, and a curtained doorway between the clean room and the non-work area. The decontamination system serves as the only entrance/exit for the work area.

2.4.26 Plasticize: To cover floors and walls with plastic sheeting as herein specified.

2.4.27 RACM: Means “regulated asbestos-containing material” to include: a) friable asbestos material; b) Category I non-friable ACM that has become friable; c) Category I non-friable ACM that will be or has been subjected to sanding, grinding, cutting, or abrading, or; d) Category II non-friable ACM that has a high probability of becoming or has become crumbled, pulverized, or reduced to powder by the forces expected to act on the material in the course of demolition or renovation operations.

2.4.28 Regulated Area: Area established by the employer to demarcate areas where Class I & Class II asbestos work is conducted, and any adjoining area where debris and waste from such asbestos work accumulates. Requirements for regulated areas are set out in 29 CFR 1926.1101(e).

2.4.29 Removal: The act of removing and transporting asbestos-containing or asbestos-contaminated materials from the work area to a suitable disposal site.

2.4.30 Surfactant: A chemical wetting agent added to water to improve penetration, thus reducing the quantity of water required for a given operation or area.

2.4.31 Time Weighted Average (TWA): The average concentration of a contaminant in air during a specific time period.

2.4.32 Work Area: Designated rooms, spaces, or areas of the project where asbestos abatement actions are to be undertaken or which may become contaminated as a result of such abatement actions. A Contained Work Area has been sealed, plasticized, and equipped with a decontamination enclosure system. A Non-Contained Work Area is an isolated or controlled-access area which has not been plasticized.

2.5 REGULATORY REQUIREMENTS

2.5.1 All applicable federal, state, and local laws and regulations concerning environmental pollution control and asbestos abatement, as well as the specific requirements stated elsewhere in the Contract Documents, shall be complied with. The Contractor shall be familiar with the following applicable codes and regulations. The most recent issue of each document shall govern. Where conflict exists among various requirements or with these specifications, the more stringent requirements shall apply.

2.5.2 Title 29, Code of Federal Regulations, U.S. Department of Labor, Occupational Safety and Health Administration (OSHA) Standards.

2.5.2.1 Part 1910.20: Access to Employee Exposure and Medical Records

2.5.2.2 Part 1910.134: Respiratory Protection

2.5.2.3 Part 1926.21: Safety Training and Education

2.5.2.4 Part 1926.59: Hazard Communication

2.5.2.5 Part 1926.1101: Asbestos

2.5.2.6 Subpart L: Scaffolds

2.5.2.7 Subpart X: Stairways & Ladders

2.5.3 Title 40, Code of Federal Regulations, U.S. Environmental Protection Agency (EPA) Standards.

2.5.3.1 Part 61, Subpart A: National Emissions Standard for Hazardous Air Pollutants -General Provisions

2.5.3.2 Part 61, Subpart M: National Emission Standards for Hazardous Air Pollutants – Asbestos NESHAP Revision; Find Rule, Effective November 20, 1990.

2.5.4 Title 49, Code of Federal Regulations, U.S. Department 0f Transportation (DOT) Standards

2.5.4.1 Part 171: Hazardous Substances

2.5.4.2 Part 172: Hazardous Materials Tables and Hazardous Materials Communications Regulations

2.5.4.3 Part 173: Shippers -General Requirements

2.5.5 State of Georgia:

2.5.5.1 Georgia Asbestos Safety Act, Title 12 of the Official Code of Georgia, Annotated.

2.5.5.2 Rules of the Georgia Department of Natural Resources Environmental Protection Division, Land Protection Branch.

2.5.5.3 Rules for Air Quality Control, Chapter 391-3-1, revised June 1998.

2.5.6 State of Georgia License Requirements: The Contractor shall hold a current license as a State of Georgia Asbestos Contractor through the Department of Natural Resources following all requirements presented in Chapter 391-3-14.

2.5.7 Daily Perimeter Monitoring: Clearance air samples will be analyzed by PCM, NIOSH 7400 Method; at least 3000 liters and a 16 liters per minute flow rate using standard (0.8 µm) PCM cassettes. Phased Contract Microscopy (PCM) shall be ≤ 0.01 f/cc for outside abatement work area.

2.6 PRODUCTS-GENERAL

2.6.1 Materials and Equipment: Provide new or used materials and equipment that are undamaged, in serviceable condition and clean from any and all debris. Provide only materials that are recognized as being suitable for their intended use by compliance with the appropriate standards. The contractor shall put NEW HEPA filters in all negative exhaust at the job site before the start of the project. The shower pump filters shall be new before the start of this project and changed as needed during the work schedule.

2.6.2 Wetting Materials: For wetting prior to disturbance of asbestos-containing materials, use amended water.

2.6.3 Amended Water: Provide water to which a surfactant has been added. Use a mixture of surfactant and water which results in wetting of the asbestos-containing material and retardation of fiber release during disturbance of the material equal to or greater than that provided by the use of one ounce of a surfactant consisting of 50 percent polyoxyethylene ester and 50 percent polyoxyethylene ether mixed with 5 gallons of water.

2.6.4 Polyethylene Sheet: A single polyethylene film in the largest sheet size possible to minimize seams, 6-mils thick as indicated, clear, frosted, or black as indicated.

2.6.5 Duct Tape: Provide duct tape in 2-or 3-inch widths, with adhesive that is formulated to aggressively stick to sheet polyethylene.

2.6.6 Spray Cement: Provide spray adhesive in aerosol cans which is specifically formulated to stick tenaciously to sheet polyethylene.

2.6.7 Disposal Bags and Impermeable Containers: Provide 6-mil thick, leak-tight polyethylene bags. Provide containers suitable to receive and retain asbestos-containing or contaminated material until proper disposal. Disposal bags must be labeled with the following labels.

2.6.7.1 First Label: Provide in accordance with 29 CFR 1910.1200(f) of OSHA's Hazardous Communication standard:

DANGER CONTAINS ASBESTOS FIBERS

AVOID CREATING DUST CANCER AND LUNG DISEASE HAZARD

Impact Resistance – Minimum 245.5 mm/N (43 in/lb) Gardner Impact Test	ASTM D 2794
Flexibility – no rupture or cracking Mandrel Bend Test	ASTM D 522

2.7 SUBMITTALS

2.7.1 Pre-Job Submittals:

2.6.7.2 Second Label: United States Department of Transportation requires labeling of reportable quantities (greater than 1 pound) of asbestos with the label:

RQ HAZARDOUS SUBSTANCE WASTE, ASBESTOS MIXTURE NA2212

2.6.8 Danger Signs and Labels: Provide OSHA-required danger signs at all approaches to asbestos control areas containing potential concentrations of airborne asbestos fibers. Locate signs at such a distance that personnel may read the sign and take necessary protective steps required before entering the work area. Provide OSHA-required labels and affix to all asbestos materials, scrap, waste, debris, and other products contained with asbestos.

2.6.9 Provide a red barrier tape, approximately 3 inches wide, preprinted with the words “Asbestos Hazard.”

2.6.10 Transportation: As required for loading, temporary storage, transit, and unloading of contaminated waste without exposure to persons or property.

2.6.11 Encapsulants

2.6.11.1 Shall conform to current USEPA requirements, shall contain no toxic or hazardous substances as defined in 29 CFR 1926.59, and shall conform to the following performance requirements.

2.6.11.2 Penetrating Encapsulant:

Requirement Test Standard

Flame Spread – 25, Smoke Emission – 50 ASTM E 84

Life Expectancy – 20 years ASTM C 732 Accelerated Aging Test Permeability – Minimum 0.4 perms ASTM E 96 Cohesion/Adhesion Test -ASTM E 796

729.5 N of force/meter (50 lbs of force/foot)

Fire Resistance – Negligible effect on fire ASTM E 119 resistance rating over 3 hour test (Classified by UL for use over fibrous and cementitious sprayed Fireproofing)

2.7.1.1 Send written notification and obtain licenses and permits as required by law. Include copies of notification, licenses, permits, etc., with pre-job submittal package.

2.7.1.2 Submit documentation that each and every employee to be utilized on the Project has had instruction on the hazards of asbestos exposure, on protective dress, on use of showers, on entry and exit from work areas, and on all aspects of work procedures and protective measures regarding asbestos removal and a copy of the asbestos handling certificate for each employee.

2.7.1.3 Submit documentation that each and every worker to be utilized on the Project by the Contractor is actively involved in a company employee respiratory protection program, has had appropriate training in respiratory protection, and is actively involved in a company employee medical surveillance program.

2.7.1.4 For each employee, submit written opinion from physician who conducted medical examination within the last 12 months as part of compliance with OSHA medical surveillance requirements. Physician's Written Opinion shall include the following:

2.7.1.4.1 Whether worker has any detected medical conditions that would place the worker at an increased risk of health impairment from exposure to asbestos.

2.7.1.4.2 Any recommended limitations on the worker or on the use of personal protective equipment such as respirators.

2.7.1.4.3 Statement that the worker has been informed by the physician of the results of the medical examination and of any medical conditions that may result from asbestos exposure.

2.7.1.5 Individually signed and witnessed Certificate of Worker's Acknowledgment for each and every worker to be utilized on the Project by the Contractor or subcontractor.

2.7.1.6 Copy of the Contractor's Asbestos Handling License.

2.7.1.7 Submit complete information relative to the following:

2.7.1.7.1 Insurance coverage including general comprehensive liability, asbestos liability, workman's compensation and employer's liability. Also submit notarized Special Endorsement signed by insurance company's authorized representative.

2.7.1.7.2 Names of supervisory personnel and their qualifications and training.

2.7.1.8 Submit laboratory qualifications for lab to be used for Contractor’s OSHA compliance air samples.

2.7.1.9 Submittals Following Initiation of Work:

2.7.1.9.1 Physician's statement, certificates of worker's acknowledgment, asbestos abatement training documentation and respirator training certification for all new employees hired during the course of the Project, prior to the first day of work on the project for each employee.

2.7.1.9.2 Submit copies of the preceding week's manifests and disposal site receipts to Asbestos Consultant weekly. Receipts shall include date, quantity of material delivered, and signature of authorized representative of landfill.

2.7.1.10 Consultant's Review:

2.7.1.10.1 Review of submittals does not relieve the Contractor from responsibility for errors which may exist in the submitted data.

2.7.1.10.2 Make revisions if required by the Consultant and resubmit for approval.

2.8 DECONTAMINATION UNITS

2.8.1 Description of Requirements: Provide a separate personnel and equipment decontamination facility at each work area. Require that the Decontamination Unit be the only means of ingress and egress for the work area. Require that all materials exit the work area through the Equipment/Waste Load-out Decontamination Unit. 2.8.1.1

2.8.1.1General:

2.8.1.1.1 Three-Stage Decontamination Unit for personnel, waste and equipment. They shall consist of a serial arrangement of connected rooms or spaced: Clean Room, Shower Room, and Dirty Room. Require all persons without exception to pass through this decontamination unit for entry into and exiting from the work area for any purpose. Do not allow parallel routes for entry or exit.

2.8.1.1.2 Clean Room: Provide a room that is physically and visually separated from the rest of the building for the purpose of changing into protective clothing. Construct using polyethylene sheeting to provide an airtight seal between the Clean Room and the rest of the building. Locate so that access to the Equipment Room and Work Area from Clean Room is through Shower Room. Separate Clean Room from the building by a sheet polyethylene flapped doorway.

2.8.1.1.2.1 Require workers to remove all street clothes in this room, dress in clean, disposable coveralls, and don respiratory protection equipment. Provide workers with individual lockers to store street clothes. Do not allow asbestos-contaminated items to enter this room. Require workers to enter this room either from outside the structure dressed in street clothes or naked from the showers.

2.8.1.1.2.2 Maintain floor of changing room dry and clean at all times. Do not allow overflow water from shower to wet floor in Clean Room.

2.8.1.1.2.3 Damp wipe all surfaces twice after each shift change with a disinfectant solution.

2.8.1.1.2.4 Provide a continuously adequate supply of disposable bath towels.

2.8.1.1.2.5 Post all emergency telephone numbers and information regarding emergency procedures.

2.8.1.1.2.6 Provide one storage locker per employee.

2.8.1.1.3 Shower Room: Provide a watertight operational shower to be used for transit by cleanly dressed workers heading for the Work Area from the Clean Room, or for showering by workers headed out of the Work Area after undressing in the Equipment Room. A Shower Room or Wash Room in the Equipment Decon Unit shall be used for final cleaning of bagged or drummed asbestos-containing waste materials passed from the work area.

2.8.1.1.3.1 Construct room by providing a shower pan and two shower walls in a configuration that will cause water running down walls to drip into pan. Install a freely draining wooden floor in shower pan at elevation of top of pan.

2.8.1.1.3.2 Separate this room from the rest of the building with airtight walls fabricated of 6mil polyethylene.

2.8.1.1.3.3 Separate this room from the Clean and Equipment Rooms by airlock with curtained doorways fabricated of 6-mil polyethylene.

2.8.1.1.3.4 Provide a minimum of one shower per six workers, based on maximum shift size.

2.8.1.1.3.5 Provide shower head and controls, hot and cold water adjustable at the tap, and drainage, as necessary for a complete and operable shower.

2.8.1.1.3.6 Provide a soap dish and a continuously adequate supply of soap and maintain in sanitary condition.

2.8.1.1.3.7 Arrange water shutoff and drain pump operation controls so that a single individual can shower without assistance from either inside or outside of the work area.

2.8.1.1.3.8 Pump wastewater to drain or to storage for use in amended water. If pumped to drain, provide 20-micron and 5-micron wastewater filters in line to drain or wastewater storage. Change filters daily or more often, if necessary.

2.8.1.1.4 Removal of Equipment or Material: Take all equipment or material from the work area through the Decontamination Unit according to the following procedure:

2.8.1.1.4.1 At washdown station in the work area, thoroughly wet-clean contaminated equipment or sealed polyethylene bags, seal plasticized drums, and pass into Equipment

Room.

2.8.1.1.4.2 When passing equipment or containers into the Equipment Room, close all doorways of the Decontamination Unit, other than the doorway between the Washdown Station and the Equipment Room. Keep all outside personnel clear of the Decontamination Unit.

2.8.1.1.4.3 Once inside the Equipment Room, damp wipe the bags and/or equipment. Remove protective outer plastic bag from drums and wet-wipe lid of drum.

2.8.1.1.4.4 When cleaning is complete, pass items into the shower and then into the Clean Room. Do not open more than one curtained doorway at a time.

2.8.1.1.4.5 Workers from the building exterior enter Clean Room and remove decontaminated equipment and/or containers for disposal. Require these workers to wear full protective clothing and appropriate respiratory protection.

2.8.1.2 Construction of Decontamination Units:

2.8.1.2.1 Walls and Ceiling: Construct airtight walls and ceiling using polyethylene sheeting. Attach to existing building components or a temporary framework.

2.8.1.2.2 Doors: Fabricate from overlapping sheets with openings a minimum of 3 feet wide. Configure so that sheeting overlaps adjacent surfaces. Weight sheets at bottoms as required so that they quickly close after being released. Provide a minimum of 6 feet between entrance and exit of any room.

2.8.1.2.3 Solid Barrier: Where the area adjacent to the decontamination area is accessible to the public, construct a solid barrier on the public side of the sheeting to protect the sheeting. Construct barrier with wood or metal studs, 16 inches on center, covered with minimum ・-inch plywood. Provide a solid wood door, equipped with a hasp and padlock, to prevent access to the work area by the public. Lock door to secure the work area between shifts.

2.8.1.3 Cleaning of Decontamination Units: Clean debris and residue from inside of Decontamination Units twice daily. Damp wipe all surfaces after each shift change. Clean debris from shower pans on a daily basis.

2.8.1.4 Signs:

2.8.1.4.1 Post an approximately 20-inch by 14-inch manufactured caution sign at each entrance to the work area displaying the following legend with letter sizes and styles of a visibility required by 29 CFR 1926:

DANGER

ASBESTOS CANCER AND LUNG DISEASE HAZARD

AUTHORIZED PERSONNEL ONLY

RESPIRATORS AND PROTECTIVE CLOTHING ARE REQUIRED IN THIS AREA

2.8.1.4.2 Post an approximately 10-inch by 14-inch manufactured sign at each entrance to each work area displaying the following legend:

NO FOOD, BEVERAGES, OR TOBACCO PERMITTED

ALL PERSONS SHALL DON PROTECTIVE CLOTHING (COVERINGS) BEFORE

ENTERING THE WORK AREA

ALL PERSONS SHALL SHOWER IMMEDIATELY AFTER LEAVING WORK AREA AND BEFORE

ENTERING THE CHANGING AREA

2.8.1.4.3 Post, in Clean Room of the Decontamination Unit, telephone numbers and locations of emergency services including, but not limited to, fire, ambulance, doctor, hospital, police, power company, and telephone company.

2.8.4 Products:

2.8.4.1 Shower Pan: Provide one-piece waterproof shower pan. Fabricate from seamless fiberglass minimum 1/16-inch thick reinforced with wood, 18 gauge stainless steel with welded seams, or a seamless liner of minimum 60-mil thick rubber roofing.

2.8.4.2 Shower Walls: Provide approximately 7-foot high walls fabricated from rigid, impervious, waterproof material, either corrugated fiberglass roofing or equivalent. Structurally support as necessary for stability.

2.8.4.3 Shower Head and Controls: Provide a factory-made shower head producing a spray of water which can be adjusted for spray size and intensity. Feed shower with water mixed from hot and cold supply lines. Arrange so that control of water temperature, flow rate, and shut off is from inside shower without outside aid.

2.8.4.4 Filters: Provide cascaded filter units on drain lines from showers or any other water source carrying asbestos-contaminated water from the work area. Provide units with disposable filter elements as indicated below. Connect so that discharged water passes primary filter and output of primary filter passes through secondary filter.

2.8.4.4.1 Primary Filter -Pass only particles 20 microns and smaller.

2.8.4.4.2 Secondary Filter -Pass only particles 5 microns and smaller.

2.8.4.5 Sump Pump: Provide totally submersible waterproof sump pump with integral float switch. Provide unit sized to pump two times the flow capacity of all showers or hoses supplying water to the sump, through the filters specified herein when they are loaded to the extent that replacement is required. Provide unit capable of pumping debris, sand, plaster, or other materials washed off during decontamination procedures without damage to mechanism of pump.

2.9 NEGATIVE PRESSURE SYSTEM

2.9.1 General:

2.9.1.1 Description of Requirements: Isolate each Work Area from all adjacent areas by installing a system of HEPA-filtered exhaust fan units, creating a pressure differential that will cause a movement of air from outside to inside at any breach in the physical isolation of the work area.

2.9.1.2 HEPA-Filtered Fan Units:

2.9.1.2.1 General: Supply the required number of HEPA-filtered exhaust fan units to maintain pressure differentials and to provide air changes in accordance with these specifications. Each unit shall include the following:

2.9.1.2.1.1 Provide HEPA filters that are individually tested and certified by the manufacturer to have an efficiency of not less than 99.97 percent when challenged with 0.3 um dioctylphthalate (DOP) particles. Each filter shall be marked with the name of the manufacturer, serial number, air flow rating, efficiency and resistance, and the direction of test air flow.

2.9.1.3 Miscellaneous Products:

2.9.1.3.1 Exhaust ducts from negative air machines shall be flexible polyethylene ducts manufactured for this purpose and sized to fit the outlet of the machines. Ducts field-fabricated from plastic sheeting will not be permitted. If direction of discharge from fan unit is not alighted with duct, use sheet metal elbow to change direction.

2.9.2 Execution:

2.9.2.1 Preparation of the Work Area:

2.9.2.1.1 Determining the Ventilation Requirements: Provide fully operational negative pressure systems supplying a minimum four air changes per hour.

2.9.2.1.2 Location of Exhaust Units: Locate exhaust unit(s) so that makeup air enters work area primarily through decontamination facilities or other supplemental makeup air locations and traverses work area as much as possible. This may be accomplished by positioning the exhaust unit(s) at a maximum distance from the worker access opening or other makeup air sources.

2.9.2.1.3 Place exhaust duct from unit through an opening in the plastic barrier or wall covering and vent to outside of building. The plastic around the duct shall then be sealed with tape.

2.9.2.2 Use of the Negative Pressure System:

2.9.2.2.1 General: Place each isolated work area under negative air pressure utilizing HEPA filtration systems. Allow no air movement system or air filtering equipment to discharge unfiltered air outside the work area. Maintain a negative pressure on the work area continuously (24 hours per day) from the start of asbestos removal and until the area has been decontaminated and certified as such by the required air testing. Maintain a minimum of 0.02 inch of water negative pressure. Exhaust all filtered and discharged air outside the building away from any air intake devices.

2.9.2.2.2 Electrical: Each unit shall be serviced by a dedicated circuit.

2.9.2.2.3 Testing the System: Test negative pressure system before any asbestos-containing material is disturbed. After the work area has been prepared, the decontamination facility set up, and the exhaust unit(s) installed, start the unit(s) (one at a time).

2.9.2.2.4 Demonstrate operation of the negative pressure system to the RPR. Demonstration will include, but not be limited to, the following:

2.9.2.2.4.1 Plastic barriers move lightly in toward work area.

2.9.2.2.4.2 Curtain of decontamination units move lightly in toward work area.

2.9.2.2.4.3 There is a noticeable movement of air through the decontamination unit. Use smoke tube to demonstrate air movement from Clean Room to Shower Room, from Shower Room to Equipment Room, and from Equipment Room to Work Area.

2.9.2.2.4.4 Use smoke tubes to demonstrate a positive motion of air across all areas in which work is to be performed.

2.9.2.2.5 Use of System During Abatement Operations:

2.9.2.2.5.1 Start exhaust units before disturbing or removing any asbestos-containing material. After abatement work has begun, run units continuously to maintain a constant 0.02 inches negative pressure until decontamination of the work area is complete. Do not turn off units at the end of the work shift or when abatement operations temporarily stop.

2.9.2.2.5.2 Start abatement work at a location farthest from the exhaust units and proceed toward them. If an electric power failure occurs, immediately stop all abatement work and do not résumé until full power is restored and all exhaust units are operating again. When power failure or loss of negative pressure equipment is expected to last longer than one-half hour:

2.9.2.2.5.2.1 Seal makeup air inlets airtight.

2.9.2.2.5.2.2 Seal decontamination units airtight after evacuation of all personnel from the work area.

2.9.2.2.5.3 Allow exhaust units to run until completion of work area clearance, as specified under Part 1.11.6.4, to remove airborne fibers that may have been generated during abatement work and cleanup and to purge the work area with clean makeup air.

2.9.2.2.6 Dismantling the System: When a final inspection and the results of final air tests indicate that the area has been decontaminated, exhaust units may be removed from the work area. Before removal from the work area, remove and properly dispose of prefilter, and seal intake to the machine with 6-mil polyethylene to prevent environmental contamination from the filters.

2.10 WORK AREA PREPARATION

2.10.1 Work Area is the location where asbestos abatement work occurs.

2.10.2 Completely isolate the work area from other parts of the building to prevent asbestos-containing dust or debris from passing beyond the isolated area. Should the area beyond the work area(s) become contaminated with asbestos-containing dust or debris as a consequence of the work, immediately stop all abatement work and clean those areas in accordance with the procedures indicated in *Cleanup and Clearance Inspection* (Part 1.11.6.4). Perform all such required cleaning or decontamination at no additional cost to owner.

2.10.3 Designate a decontamination area for abatement activities.

2.10.4 For interior work, remove all furniture, objects, etc., from work areas and establish critical barriers and decontamination units.

2.11 REQUIRED BARRIER SYSTEMS

2.11.1 Critical Barriers for Interior Work:

2.11.1.1 Completely separate the work area from other portions of the building and the outside by a sheet plastic barrier at least 6 mil in thickness, sealed with duct tape or spray cement. Exterior barriers shall be adequate to resist normal environmental conditions.

2.11.1.2 Individually seal all ventilation openings (supply and exhaust), lighting fixtures, doorways and windows, and other openings into the work area with duct tape along or with two polyethylene sheets at least 6-mil in thickness, taped securely in place with duct tape. Maintain seal until all work including Project Decontamination is completed.

2.11.1.3 Clean all surfaces in work area with a HEPA-filtered vacuum and by wet wiping prior to the installation of any sheet plastic (do not wet wipe carpets).

2.11.1.4 Remove all electrical and mechanical items, such as lighting fixtures, clocks, diffuses, registers, escutcheon plates, etc., which cover any part of the surface to be worked.

2.11.1.5 Remove all general remaining construction items such as casework, doors and window trim, moldings, ceiling trim, etc., which cover the surface of work, as required, to prevent interference with the work. Do not remove items that may disturb wall and ceiling system or generate fibers. The suspended ceiling tile system may be removed as non-asbestos containing construction debris prior to start of asbestos abatement work.

2.11.1.6 Construct and maintain decontamination units.

2.11.1.7 Provide two sheet plastic barriers at least 6-mil in thickness as required to completely seal openings from the work area into adjacent areas. Seal the perimeter of all sheet plastic barriers with duct tape or spray cement.

2.11.1.8 Mechanically support sheet plastic independently of duct tape or spray cement seals so that seals do not support the weight of plastic.

2.11.2 Primary Barriers

Cover floor of work areas with at least two individual layers of clear polyethylene sheeting, at least 6-mil in thickness. Both spray-glue and duct tape all seams in the floor covering. Locate seams in the top layer 6 feet from, or at right angles to, seams in bottom layer. Install sheeting so that top layer can be removed independently of bottom layer.

2.11.3 Asbestos Abatement Work Will Not Commence Until the Following Requirements are Met:

2.11.3.1 Arrangements have been made for disposal of waste at an acceptable site.

2.11.3.2 Tools, equipment, and material waste receptors are on hand.

2.11.3.3 Proper notification has been made to the appropriate regulatory agency.

2.11.3.4 All other preparatory steps have been taken and applicable notices are posted and permits obtained.

2.11.3.5 All worker training has been completed.

2.11.3.6 All security requirements have been met.

2.11.3.7 The engineer authorizes work to commence, in writing.

2.12 ASBESTOS REMOVAL

2.12.1 General Applicability of Codes and Regulations: Except to the extent that more explicit or more stringent requirements are written directly into the contract documents, all applicable codes, regulations, statutes, laws, and rules 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 are bound herewith.

2.12.2 Contractor Responsibility: The Contractor shall assume full responsibility and liability for the 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 is responsible for providing medical examinations and maintaining medical records of personnel as required by the applicable federal, state, and local regulations. The Contractor shall hold the Owner and Asbestos Consultant harmless for failure to comply with any applicable work, hauling, disposal, safety, health, or other regulation on the part of himself, his employees, or his subcontractors.

2.12.3 Prepare work area(s) as previously specified.

2.12.4 Remove and properly dispose of all asbestos-containing material in accordance with federal, state and local regulations or as more stringently specified herein.

2.13 CLEANUP AND CLEARANCE INSPECTION – INTERIORS

2.13.1 Provide general cleanup of work area concurrently with the removal of asbestos-containing materials. Do not permit removed materials to accumulate.

2.13.2 Remove all visible accumulations of asbestos material and debris.

2.13.3 Wet clean all surfaces in the work area(s)

2.13.4 Notify Engineer for observation of cleaning to determine completeness.

2.13.5 Clean all sealed impermeable containers and all equipment (excluding that which will be needed for further cleaning) used in the work area(s) and remove from work area(s) via the decontamination enclosure system.

2.13.6 The work area will not be considered ready for second cleaning until work area fiber concentrations are equal to or less than 0.03 fibers per cubic centimeters of air.

2.13.7 Perform second wet-cleaning of all surfaces in work area(s) and immediately adjacent contaminated areas.

2.13.8 Final Clearance Testing will not be performed until final work area inspection has been performed by the Contractor and Engineer. The appended Final Work Area Inspection Form must be signed by both parties.

2.13.9 The Engineer will test final air quality clearance level of 0.01 f/cc or less upon notice from Contractor that work areas and other decontaminated and cleaned areas are ready and Final Work Area Inspection Form has been executed by the Contractor and the Engineer. Final Clearance Test shall be analyzed as specified. Consider work areas and all other decontaminated and cleaned areas ready for

acceptance when final clearance air testing performed by the engineer indicates that airborne fiber concentration is less than 0.01 f/cc of air.

2.13.10 Air testing shall be performed with air environmentally agitated by mechanical devices, such as portable electric leaf blowers as directed by Engineer. The Asbestos Contractor shall provide power and sufficient outlets to conduct final testing.

2.13.11 Reclean at Contractor's expense all areas which do not comply with the final clearance standard. Continue cleaning until the specified final air quality clearance level is achieved. Contractor shall bear cost of all follow-up testing necessitated by the failure of the air tests to meet the specified final clearance level. Owner will deduct the cost of such follow-up tests from whatever monies remain due to the contractor.

2.13.12 Following acceptance of final clearance level test results and after Engineer determines work area(s) to be visually decontaminated:

2.13.12.1 Dismantle decontamination enclosure system and thoroughly wet clean immediate areas.

2.13.12.2 Dispose of debris, used cleaning materials, unsalvageable materials used for sturdy barriers, and any other remaining materials. Consider the aterials as contaminated and dispose of accordingly.

2.13.13 Asbestos abatement work is complete upon meeting the work area clearance criteria and fulfilling the following:

2.13.13.1 Remove all equipment, materials, debris from the work site.

2.13.13.2 Dispose of all asbestos-containing waste materials as specified.

2.14 ASBESTOS CONTAINING WASTE DISPOSAL

2.14.1 Asbestos-containing waste materials and debris which is packaged in accordance with the provisions of this Specification may be disposed of at designated sanitary landfills. The Contractor will dispose of accumulated waste at appropriate intervals.

2.14.2 For all interior work, Contractor shall use the decontamination unit for final cleaning of bagged ACM and equipment.

2.14.3 All waste and debris removed from the work area after the start of asbestos abatement will be double bagged and disposed of as asbestos-containing waste.

2.14.4 Decontaminated and sealed single-bagged waste will be double-bagged and sealed prior to being removed from the work area.

2.14.5 All double-bagged and poly-wrapped waste shall be placed into an appropriately lined and enclosed vehicle for transportation to the disposal site unless otherwise authorized in writing by the Engineer. All waste containers and dumpsters used for storage of waste

outside the building shall be sealed, locked and secured at all times waste is not being transferred.

2.14.6 Waste container shall be lined with two layers of 6-mil polyethylene.

2.14.7 LABELING

2.14.7.1 The Disposal bags shall be labeled as required by 29 CFR 1910.26 and the Department of Transportation Regulations classifying asbestos as a hazardous waste.

2.14.7.2 An additional label will be placed between layers of disposal bags if bags are clear or attached to the outer layer if bags are opaque. The additional label will have the name of the owner and the location where the waste was generated, in accordance with EPA's NESHAP requirements.

2.14.8 TRANSPORTATION, LOADING AND UNLOADING

2.14.8.1 Place double bagged waste in drums or enclosed carts when transporting waste outside of the work area.

2.14.8.2 Provide pedestrian barricades and post with visible Danger Signs during activities involving movement of containerized asbestos waste from the work area, or when loading or unloading containerized asbestos waste. Place signed barricade in a manner that will sufficiently block passage of a pedestrian into a waste handling area. Barricade Danger Sign legend, text size, style and arrangement shall conform to the requirements of EPA Standard 40 CFR Part 61.149 (d)(1).

2.14.8.3 Sealed and labeled disposal bags shall be used to transport RACM waste to the landfill. Procedures for hauling and disposal shall comply with 40 CFR Part 61, 49 CFR Part 171 and 172, and other applicable state, regional, and local government regulations.

2.14.8.4 Manifest and Waste Receipt: A properly completed "Waste Shipment Record" form shall accompany asbestos waste transported to a disposal site. Refer to 40 CFR Part 61 for example format of the form.

2.14.8.5 Post “Danger Asbestos” signs on truck or dumpster during loading and unloading.

2.14.8.6 Place red “Danger Asbestos” barrier tape around truck or dumpster during loading and unloading.

2.14.8.7 Carefully load containerized waste on sealed trucks, dumpster or other appropriate vehicles for transport. Exercise care before and during transport, to ensure that no unauthorized persons have access to the material. Keep truck or dumpster locked.

2.14.8.8 Do not store containerized material outside the work area. Take containers from the work area directly to a sealed truck or dumpster.

2.14.8.9 Do not transport containerized waste materials on open trucks. Label drums with the same warning labels as bags. Treat drums that have been contaminated as asbestos-containing waste and dispose of in accordance with this specification.

2.14.9 RECEIPTS

2.14.10 Retain signed and dated receipts from landfill for materials disposed.

Special Endorsement (Insurance) Form

Attached to and forming part of Policy No. _____

of the _____issued at its

(Name of Insurance Company)

_____ _____ Agency.

(City) (State)

Date of Endorsement_____ for_____

Removal of Asbestos-Containing Materials, Buildings 15 and 16 at Brook Run Park-Dunwoody, Georgia.

In consideration of the premium for which the policy is written and proper rate adjustment when applicable, the insurance company agrees:

The insurance company agrees that this policy shall not be canceled, changed, allowed to lapse, or allowed to expire until thirty (30) days after the Owner has received written notice thereof as evidenced by return receipt of registered letter or until such time as other valid and effective insurance coverage acceptable in every respect to the Owner and providing protection equal to protection called for in the policy shown below shall have been received, accepted, and acknowledged by the Owner.

The insurance company acknowledges and agrees that this policy is applicable for Contractor or Subcontractor whose business is asbestos removal or asbestos abatement required by the Project named above.

The foregoing insurance provisions have been incorporated into the reference and are hereby made a part of Insurance Policy No._____ , this day of_____ , 2016 .

_____

(Name of Company)

_____

(Signature of Authorized Representative)

Company Seal

3.0 OTHER HAZARDOUS MATERIAL REMOVAL AND DISPOSAL

3.1 Remove, transport and dispose of lead paint and any other hazardous materials in accordance with local, state and federal regulations to ensure that hazardous material is not released or dispersed into the air, soil or water at the site.

4.0 DEMOLITION

4.1 General: Demolish indicated existing buildings completely. Use methods required to complete the Work within limitations of governing regulations.

4.2 Engineering Surveys: During demolition, perform surveys to detect hazards that may result from building demolition activities.

4.3 Site Access and Temporary Controls: Conduct building demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.

4.4 Do not close or obstruct streets, walks, walkways, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction. Provide alternate routes around closed or obstructed traffic ways if required by authorities having jurisdiction.

4.5 Use water mist and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations. Do not use water when it may damage adjacent construction or create hazardous or objectionable conditions, such as ice, flooding, and pollution.

4.6 Explosives: Use of explosives is not permitted.

4.7 DEMOLITION BY MECHANICAL MEANS

4.7.1 Below-Grade Construction: Demolish foundation walls and other below-grade construction.

4.7.2 Remove below-grade construction, including foundation walls, and footings, completely.

5.0 SITE RESTORATION

5.1 Remove all man-made materials such as rubble, wiring, plastics, wood and concrete from the building area.

5.2 Below-Grade Areas: Completely fill below-grade areas and voids resulting from building demolition operations with satisfactory soil materials. Backfill excavations over 2 feet in depth in 8-inch lifts compacted to 95% of the standard Proctor maximum dry density.

5.3 Site Grading: Uniformly rough grade area of demolished construction to a smooth surface, free from irregular surface changes and debris. Provide a smooth transition between adjacent existing grades and new grades.

5.4 Seed and Straw all graded areas to ensure proper grass growth and coverage.

6.0 DISPOSAL OF DEMOLISHED MATERIALS

6.1 Remove demolition waste materials from Project site and legally dispose of them in an EPA-approved landfill acceptable to authorities having jurisdiction.

6.2 Do not allow demolished materials to accumulate on-site.

6.3 Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

6.4 Do not burn demolished materials.

6.5 Provide documentation of the following:

6.6 Manifests and disposal documentation for hazardous materials.

6.7 Disposal documentation for non-hazardous materials.

7.0 CLEANING

Clean adjacent structures and improvements of dust, dirt, and debris caused by building demolition operations. Return adjacent areas to condition existing before building demolition operations began.

FAILURE TO RETURN THIS PAGE AS PART OF YOUR BID DOCUMENT MAY RESULT IN REJECTION OF BID.

ITB 16-06 Demolition of the Theater Building at Brook Run Park

Item	Project	Amount
1	Demolition of Theater and Pump Room	
	Total Bid	

Certification of Non-Collusion in Quote Preparation Signature_____
Date _____

Termination for Cause: The City may terminate this agreement for cause upon ten days prior written notice to the contractor of the contractor's default in the performance of any term of this agreement. Such termination shall be without prejudice to any of the County's rights or remedies by law.

Termination for Convenience: The City may terminate this agreement for its convenience at any time upon 30 days written notice to the contractor. In the event of the City's termination of this agreement for convenience, the contractor will be paid for those services actually performed. Partially completed performance of the agreement will be compensated based upon a signed statement of completion to be submitted by the contractor, which shall itemize each element of performance.

Termination for fund appropriation: The City may unilaterally terminate this Agreement due to a lack of funding at any time by written notice to the Consultant. In the event of the City's termination of this Agreement for fund appropriation, the Consultant will be paid for those services actually performed. Partially completed performance of the Agreement will be compensated based upon a signed statement of completion to be submitted by the Service Provider which shall itemize each element of performance.

Work is to commence on or about October 3, 2016. The City of Dunwoody requires pricing to remain firm for the duration of the contract. Failure to hold firm pricing for the term of the contract will be sufficient cause for the City to declare bid non-responsive.

The City requires that all who enter into a contract for the physical performance of services with the City must satisfy O.C.G.A. § 13-10-91 and Rule 300-10-1-.02, in all manner, and such are conditions of the contract.

In compliance with the attached specifications, the undersigned offers and agrees, within ninety (90) days of the date of quote opening, to furnish any or all of the items upon which prices are quoted, at the price set opposite each item, delivered to the designated point(s) within the time specified in the quote schedule.

Company Name: _____

Legal Business Name_____

Federal Tax ID _____

Address

_____

_____

Does your company currently have a location within the City of Dunwoody? Yes No

Representative Signature _____

Printed Name _____

Telephone Number_____

Fax Number _____

Email Address _____

REFERENCES

List below customers for whom you have provided similar products or services.

1.COMPANY NAME:

ADDRESS:

CONTACT PERSON:

PHONE NO.:

E-MAIL:

2. COMPANY NAME:

ADDRESS:

CONTACT PERSON:

PHONE NO.:

E-MAIL:

3. COMPANY NAME:

ADDRESS:

CONTACT PERSON:

PHONE NO.:

E-MAIL:

Solicitation No. _____

CONTRACTOR AFFIDAVIT AND AGREEMENT

By executing this affidavit, the undersigned contractor verifies its compliance with O.C.G.A. 13-10-91, stating affirmatively that the individual, firm, or corporation which is contracting with the City of Dunwoody has registered with and is participating in a federal work authorization program* [any of the electronic verification of work authorization programs operated by the United States Department of Homeland Security or any equivalent federal work authorization program operated by the United States Department of Homeland Security to verify information of newly hired employees, pursuant to the Immigration Reform and Control Act of 1986 (IRCA),

P.L. 99-603], in accordance with the applicability provisions and deadlines established in O.C.G.A 13-10-91.

The undersigned further agrees that, should it employ or contract with any subcontractor(s) in connection with the physical performance of services pursuant to this contract, contractor will secure from such subcontractor(s) similar verification of compliance with O.C.G.A 13-10-91 on the Subcontractor Affidavit provided in Rule 300-10-01-.08 or a substantially similar form. Contractor further agrees to maintain records of such compliance and provide a copy of each such verification to the City of Dunwoody at the time the subcontractor(s) is retained to perform such service.

E-Verify * User Identification Number

Company Name

BY: Authorized Officer or Agent Date (Contractor Signature)

Title of Authorized Officer or Agent of Contractor

Printed Name of Authorized Officer or Agent

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE

_____ DAY OF _____, 200__

Notary Public

My Commission Expires:

* As of the effective date of O.C.G.A. 13-10-91, the applicable federal work authorization program is "E-Verify" operated by the U.S. Citizenship and Immigration Services Bureau of the U.S. Department of Homeland Security, in conjunction with the Social Security Administration (SSA).

SAMPLE

1) _____ I am a United States citizen

OR

2) _____ I am a legal permanent resident 18 years of age or older or I am an otherwise qualified

Affidavit Verifying Status for City Public Benefit Application

By executing this affidavit under oath, as an applicant for a City of Dunwoody, Georgia Business License or Occupation Tax Certificate, Alcohol License, Taxi Permit or other public benefit as referenced in O.C.G.A. Section 50-36-1, I am stating the following with respect to my application for a City of Dunwoody, Business License or Georgia Occupational Tax Certificate, Alcohol License, Taxi Permit or other public benefit (circle one) for _____. [Name of natural person applying on behalf of individual, business, corporation, partnership, or other private entity]

alien or non-immigrant under the Federal Immigration and Nationality Act 18 years of age or older and lawfully present in the United States.*

In making the above representation under oath, I understand that any person who knowingly and willfully makes a false, fictitious, or fraudulent statement or representation in an affidavit shall be guilty of a violation of Code Section 16-10-20 of the Official Code of Georgia.

Signature of Applicant: Date

Printed Name:

SUBSCRIBED AND SWORN BEFORE ME ON THIS THE *_____ ____ DAY OF _____, 20__ Alien Registration number for non-citizens

Notary Public My Commission Expires:

*Note: O.C.G.A. § 50-36-1(e)(2) requires that aliens under the federal Immigration and Nationality Act, Title 8 U.S.C., as amended, provide their alien registration number. Because legal permanent residents are included in the federal definition of "alien", legal permanent residents must also provide their alien

registration number. Qualified aliens that do not have an alien registration number may supply another identifying number below:

ATTENTION

FAILURE TO RETURN THE FOLLOWING DOCUMENTS MAY RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION:

1 FAILURE TO USE CITY BID SCHEDULE.

2 FAILURE TO RETURN APPLICABLE COMPLIANCE SHEETS/SPECIFICATION SHEETS.

3 FAILURE TO RETURN APPLICABLE ADDENDA.

4 FAILURE TO PROVIDE INFORMATION ON ALTERNATES OR EQUIVALENTS.

5 THE CITY SHALL BE THE SOLE DETERMINANT OF TECHNICALITY VS. NON-RESPONSIVE BID.

6 FAILURE TO PROVIDE BID BOND, WHEN REQUIRED, WILL RESULT IN BID BEING DEEMED NON-RESPONSIVE AND AUTOMATIC REJECTION. BID BONDS ARE NOT REQUIRED ON ALL BIDS. BOND REQUIREMENTS ARE CLEARLY STATED ON THE INVITATION TO BID. IF YOU NEED CLARIFICATION, CONTACT PURCHASING.

CITY OF DUNWOODY

DEPARTMENT OF FINANCE AND ADMINISTRATION – PURCHASING DIVISION

GENERAL INSTRUCTIONS FOR BIDDERS, TERMS AND CONDITIONS

I. PREPARATION OF BIDS:

A. Each bidder shall examine the drawings, specifications, schedule and all instructions. Failure to do so will be at the bidder's risk, as the bidder will be held accountable for their bid response.

B. Each bidder shall furnish all information required by the bid form or document. Each bidder shall sign the bid and print or type his or her name on the schedule. The person signing the bid must initial erasures or other changes. An authorized agent of the company must sign bids.

C. Individuals, firms and businesses seeking an award of a City of Dunwoody contract may not initiate or continue any verbal or written communications regarding a solicitation with any City officer, elected official, employee or other City representative without the permission of Purchasing between the date of the issuance of the solicitation and the date of the final contract award. Violations will be reviewed by the Purchasing Manager. If determined that such communication has compromised the competitive process, the offer submitted by the individual, firm or business may be disqualified from consideration for award.

D. Sample contracts (if pertinent) are attached, as is the affidavit. These do NOT have to be filled out with the bid/proposal submittal, but are contained for informational purposes only. If awarded, the successful bidder(s) will be required to complete them prior to contract execution.

II. DELIVERY:

A. Each bidder should state time of proposed delivery of goods or services.

B. Words such as "immediate," "as soon as possible," etc. shall not be used. The known earliest date or the minimum number of calendar days required after receipt of order (delivery A.R.O.) shall be stated (if calendar days are used, include Saturday, Sunday and holidays in the number).

III. EXPLANATION TO BIDDERS:

Any explanation desired by a bidder regarding the meaning or interpretation of the invitation for bids, drawings, specifications, etc. must be requested by the question cutoff deadline stated in the solicitation in order for a reply to reach all bidders before the close of bid. Any information given to a prospective bidder concerning an invitation for bid will be furnished to all prospective bidders as an addendum to the invitation if such information is necessary or if the lack of such information would be prejudicial to uninformed bidders. The written bid documents supersede any verbal or written communications between parties. Receipt of addendum should be acknowledged in the bid. Although Purchasing will make every effort to send any addendum to known bidders, it is the bidder's ultimate responsibility to ensure that they have all applicable addenda prior to bid submittal. This may be accomplished via contact with Purchasing prior to bid submittal.

IV. SUBMISSION OF BIDS:

A. Bids shall be enclosed in sealed envelopes, addressed to the City of Dunwoody Purchasing Office with the name of the bidder, the date and hour of opening and the invitation to bid number on the face of the envelope. Telegraphic/faxed bids will not be considered. Any addenda should be enclosed in the sealed envelopes as well.

B. ADD/DEDUCT: Add or deduct amounts indicated on the outside of the envelope are allowed and will be applied to the lump sum amount. Amount shall be clearly stated and should be initialed by an authorized company representative.

C. Samples of items, when required, must be submitted within the time specified and, unless otherwise specified by the City, at no expense to the City. Unless otherwise specified, samples will be returned at the bidder's request and expense if items are not destroyed by testing.

D. Items offered must meet required specifications and must be of a quality, which will adequately serve the use and purpose for which intended.

E. Full identification of each item bid upon, including brand name, model, catalog number, etc. must be furnished to identify exactly what the bidder is offering. Manufacturer's literature may be furnished.

F. The bidder must certify that items to be furnished are new and that the quality has not deteriorated so as to impair its usefulness.

G. Unsigned bids will not be considered except in cases where bid is enclosed with other documents, which have been signed. The City will determine this.

H. The City of Dunwoody is exempt from federal excise tax and Georgia sales tax with regard to goods and services purchased directly by the City. Suppliers and contractors are responsible for federal excise tax and sales tax, including taxes for materials incorporated in county construction projects. Suppliers and contractors should contact the State of Georgia Sales Tax Division for additional information.

I. Information submitted by a bidder in the bidding process shall be subject to disclosure after the public opening in accordance with the Georgia Open Records Act. Each page of proprietary information must be identified. Entire bid may not be deemed proprietary.

V. WITHDRAWAL OF BID DUE TO ERRORS:

The bidder shall give notice in writing of his claim of right to withdraw his bid without penalty due to an error within two (2) business days after the conclusion of the bid opening procedure. Bids may be withdrawn from consideration if the price was substantially lower that the other bids due solely to a mistake therein, provided the bid was submitted in good faith, and the mistake was a clerical mistake as opposed to a judgment mistake, and was actually due to an unintentional arithmetic error or an unintentional omission of a quantity of work, labor or material made directly in the compilation of the bid, which unintentional arithmetic error or unintentional omission can be clearly shown by objective evidence drawn from inspection of original work papers, documents and material used in the preparation of the bid sought to be withdrawn. The bidder's original work papers shall be the sole acceptable evidence of error and mistake if he elects to withdraw his bid. If a bid is withdrawn under the authority of this provision, the lowest remaining responsive bid shall be deemed to be low bid.

No bidder who is permitted to withdraw a bid shall, for compensation, supply any material or labor or perform any subcontract or other work agreement for the person or firm to whom the contract is awarded or otherwise benefit, directly or indirectly, from the performance of the project for which the withdrawn bid was submitted.

Supplier has up to forty-eight (48) hours to notify Purchasing of an obvious clerical error made in calculation of bid in order to withdraw a bid after bid opening. Withdrawal of bid for this reason must be done in writing within the forty-eight (48) hour period. Suppliers who fail to request withdrawal of bid by the required forty-eight (48) hours shall automatically forfeit bid bond. Bid may not be withdrawn otherwise.

Bid withdrawal is not automatically granted and will be allowed solely at the City of Dunwoody's discretion.

VI. TESTING AND INSPECTION:

Since tests may require several days for completion, the City reserves the right to use a portion of any supplies before the results of the tests are determined. Cost of inspections and tests of any item, which fails to meet the specifications, shall be borne by the bidder.

VII. F.O.B. POINT:

Unless otherwise stated in the invitation to bid and any resulting contract, or unless qualified by the bidder, items shall be shipped F.O.B. Destination. The seller shall retain title for the risk of transportation, including the filing for loss or damages. The invoice covering the items is not payable until items are delivered and the contract of carriage has been completed. Unless the F.O.B. clause states otherwise, the seller assumes transportation and related charges either by payment or allowance.

VIII. PATENT INDEMNITY:

The contractor guarantees to hold the City, its agents, officers or employees harmless from liability of any nature or kind for use of any copyrighted or uncopyrighted composition, secret process, patented or unpatented invention, articles or appliances furnished or used in the performance of the contract, for which the contractor is not the patentee, assignee or licensee.

IX. BID BONDS AND PAYMENT AND PERFORMANCE BONDS (IF REQUIRED):

A five percent (5%) bid bond, a one hundred percent (100%) performance bond, and a one hundred percent (100%) payment bond shall be furnished to the City of Dunwoody for any bid as required in bid package or document. Failure to submit appropriate bonding will result in automatic rejection of bid. Bonding company must be authorized to do business in Georgia by the Georgia Insurance Commission, listed in the Department of the Treasury's publication of companies holding certificates of authority as acceptable surety on Federal bonds and as acceptable reinsuring companies, and have an A.M. Best rating as stated in the insurance requirement of the solicitation.

X. DISCOUNTS: In connection with any discount offered, time will be computed from the date of delivery and acceptance at destination, or from the date correct invoice or voucher is received, whichever is the later date. Payment is deemed to be made for the purpose of earning the discount, on the date of the City check.

XI. AWARD:

A. Award will be made to the lowest responsive and responsible bidder. The quality of the articles to be supplied, their conformity with the specifications, their suitability to the requirements of the City, and the delivery terms will be taken into consideration in making the award. The City may make such investigations as it deems necessary to determine the ability of the bidder to perform, and the bidder shall furnish to the City all such information and data for this purpose as the City may request. The City reserves the right to reject any bid if the evidence submitted by, or investigation of such bidder fails to satisfy the City that such bidder is properly qualified to carry out the obligations of the contract.

B. The City reserves the right to reject or accept any or all bids and to waive technicalities, informalities and minor irregularities in bids received.

C. The City reserves the right to make an award as deemed in its best interest, which may include awarding a bid to a single bidder or multiple bidders; or to award the whole bid, only part of the bid, or none of the bid to single or multiple bidders, based on its sole discretion of its best interest.

XII. DELIVERY FAILURES:

Failure of a contractor to deliver within the time specified or within reasonable time as interpreted by the Purchasing Manager, or failure to make replacement of rejected articles/services when so requested, immediately or as directed by the Purchasing Manager, shall constitute authority for the Purchasing Manager to purchase in the open market articles/services of comparable grade to replace the articles/services rejected or not delivered. On all such purchases, the contractor shall reimburse the City within a reasonable time specified by the Purchasing Manager for any expense incurred in excess of contract prices, or the City shall have the right to deduct such amount from monies owed the defaulting contractor. Alternatively, the City may penalize the contractor one percent (1%) per day for a period of up to ten (10) days for each day that delivery or replacement is late. Should public necessity demand it, the City reserves the right to use or consume articles delivered which are substandard in quality, subject to an adjustment in price to be determined by the Purchasing Manager.

XIII. CITY FURNISHED PROPERTY:

No material, labor or facilities will be furnished by the City unless so provided in the invitation to bid.

XIV. REJECTION AND WITHDRAWAL OF BIDS:

Failure to observe any of the instructions or conditions in this invitation to bid may constitute grounds for rejection of bid.

XV: CONTRACT:

Each bid is received with the understanding that the acceptance in writing by the City of the offer to furnish any or all of the commodities or services described therein shall constitute a contract between the bidder and the City which shall bind the bidder on his part to furnish and deliver the articles quoted at the prices stated in accordance with the conditions of said accepted bid. The City, on its part, may order from such contractor, except for cause beyond reasonable control, and to pay for, at the agreed prices, all articles specified and delivered.

Upon receipt of a bid package containing a City of Dunwoody “Sample Contract” as part of the requirements, it is understood that the bidder has reviewed the documents with the understanding that the City of Dunwoody requires that all agreements between the parties must be entered into via this document. If any exceptions are taken to any part, each must be stated in detail and submitted as part of the bid. If no exceptions are stated, it is assumed that the bidder fully agrees to the provisions contained in the “Sample Contract” in its entirety.

When the contractor has performed in accordance with the provisions of this agreement, the City of Dunwoody shall pay to the contractor, within thirty (30) days of receipt of any department approved payment request and based upon work completed or service provided pursuant to the contract, the sum so requested, less the retainage stated in this agreement, if any.

XVI. NON-COLLUSION:

Bidder declares that the bid is not made in connection with any other bidder submitting a bid for the same commodity or commodities, and that the bid is bona fide and is in all respects fair and without collusion or fraud. An affidavit of non-collusion shall be executed by each bidder. Collusion and fraud in bid preparation shall be reported to the State of Georgia Attorney General and the United States Justice Department.

XVII. DEFAULT:

The contract may be canceled or annulled by the Purchasing Manager in whole or in part by written notice of default to the contractor upon non-performance or violation of contract terms. An award may be made to the next low responsive and responsible bidder, or articles specified may be purchased on the open market similar to those so terminated. In either event, the defaulting contractor (or his surety) shall be liable to the City for costs to the City in excess of the defaulted contract prices; provided, however, that the contractor shall continue the performance of this contract to the extent not terminated under the provisions of this clause. Failure of the contractor to deliver materials or services within the time stipulated on his bid, unless extended in writing by the Purchasing Manager, shall constitute contract default.

XVIII. TERMINATION FOR CAUSE:

The City may terminate this agreement for cause upon ten days prior written notice to the contractor of the contractor's default in the performance of any term of this agreement. Such termination shall be without prejudice to any of the City's rights or remedies by law.

XIX. TERMINATION FOR CONVENIENCE:

The City may terminate this agreement for its convenience at any time upon 30 days written notice to the contractor. In the event of the City's termination of this agreement for convenience, the contractor will be paid for those services actually performed. Partially completed performance of the agreement will be compensated based upon a signed statement of completion to be submitted by the contractor, which shall itemize each element of performance.

XX. DISPUTES:

Except as otherwise provided in the contract documents, any dispute concerning a question of fact arising under the contract which is not disposed of shall be decided after a hearing by the Purchasing Manager, who shall reduce his/her decision to writing and mail or otherwise furnish a copy thereof to

the contractor. The decision of the Purchasing Manager shall be final and binding; however, the contractor shall have the right to appeal said decision to a court of competent jurisdiction.

XXI. SUBSTITUTIONS:

Bidders offering and quoting on substitutions or who are deviating from the attached specifications shall list such deviations on a separate sheet to be submitted with their bid. The absence of such a substitution list shall indicate that the bidder has taken no exception to the specifications contained herein.

XXII. INELIGIBLE BIDDERS:

The City may choose not to accept the bid of a bidder who is in default on the payment of taxes, licenses or other monies due to the City. Failure to respond to three (3) consecutive times for any given commodity/service may result in removal from the supplier list under that commodity/service.

XXIII. BUSINESS LICENSE:

Each successful bidder shall provide evidence of a valid City of Dunwoody business license if the bidder maintains an office within the City of Dunwoody. Unincorporated, out of City, and out of State bidders are required to provide evidence of a certificate to do business in any town, County or municipality in the State of Georgia, or as otherwise required by City ordinance or resolution.

XXIV. AMERICANS WITH DISABILITIES ACT:

All contractors for the City of Dunwoody are required to comply with all applicable sections of the Americans with Disabilities Act (ADA) as an equal opportunity employer. In compliance with the Americans with Disabilities Act (ADA), the City of Dunwoody provides reasonable accommodations to permit a qualified applicant with a disability to enjoy the privileges of employment equal to those employees with disabilities. Disabled individuals must satisfy job requirements for education background, employment experience, and must be able to perform those tasks that are essential to the job with or without reasonable accommodations.

XXV. ALTERATIONS OF SOLICITATION AND ASSOCIATED DOCUMENTS:

Alterations of City documents are strictly prohibited and will result in automatic disqualification of the firm's solicitation response. If there are "exceptions" or comments to any of the solicitation requirements or other language, then the firm may make notes to those areas, but may not materially alter any document language.

XXVI. TAX LIABILITY:

Local and state governmental entities must notify contractors of their use tax liability on public works projects. Under Georgia law, private contractors are responsible for paying a use tax equal to the sales tax rate on material and equipment purchased under a governmental exemption that is incorporated into a government construction project: excluding material and equipment provided for the installation,

repair, or expansion of a public water, gas or sewer system when the property is installed for general distribution purposes. To the extent the tangible personal property maintains its character (for example the installation of a kitchen stove), it remains tax-exempt. However, if the installation incorporates the tangible personal property into realty, e.g., the installation of sheetrock, it becomes taxable to the private contractor.

See O.C.G.A. 48-8-3(2) and O.C.G.A. 48-8-63

XXVIII. STATE LAW REGARDING WORKER VERIFICATION:

State Law requires that all who enter into a contract for the physical performance of services with the City must satisfy O.C.G.A. § 13-10-91 and Rule 300-10-1-.02, in all manner, and such are conditions of the contract.

By submitting a bid to the City, contractor agrees that, in the event the contractor employs or contracts with any subcontractor(s) in connection with the covered contract, the contractor will secure from the subcontractor(s) such subcontractor(s') indication of the employee-number category applicable to the subcontractor, as well as attestation(s) from such subcontractor(s) that they are in compliance with O.C.G.A. § 13-10-91 and Rule 300-10-1.02. Such attestation(s) shall be maintained and may be inspected by the City at any time. Any such attestation shall become a part of the contractor/subcontractor agreement.

An affidavit of such compliance with O.C.G.A. § 13-10-91 and Rule 300-10-1-.02 will be initiated by the City, signed by the contractor, and will become part of the contract.

XXIX. GENERAL CONTRACTORS LICENSE:

All General Contractors must have a current valid license from the State Licensing Board for Residential and General Contractors, unless specifically exempted from holding such license pursuant to Georgia law (O.C.G.A. Section 43-41-17).

XXXII. INDEMNIFICATION:

To the fullest extent permitted by law, the Contractor shall, at his sole cost and expense, indemnify, defend, satisfy all judgments, and hold harmless the City, the engineer, and their agents and employees from and against all claims, damages, actions, judgments, costs, penalties, liabilities, losses and expenses, including, but not limited to, attorney's fees arising out of or resulting from the performance of the work, provided that any such claim, damage, action, judgment, cost, penalty, liability, loss or expense (1) is attributable to bodily injury, sickness, disease, or death, or to injury to or destruction of tangible property (other than the work itself) including the loss of use ITB 10-33 Page 35

resulting therefrom, and (2) is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them or anyone for whose acts any of them may be liable, regardless whether such claim is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge or otherwise reduce any of the rights or

obligations of indemnity which would otherwise exist as to any party or person described in this agreement. In any and all claims against the City, the engineer, or any of their agents or employees by any employee of the Contractor, any subcontractor, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, the indemnification obligation contained herein shall not be limited in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the Contractor or any subcontractor under Worker's Compensation Acts, disability benefit acts, or other employee benefit acts.

XXXIII. ENVIRONMENTAL SUSTAINABILITY

The City of Dunwoody is committed to environmental sustainability. The City believes we have a unique opportunity to further expand our leadership in the area of environmentally preferable purchasing, and through our actions, elicit changes in the marketplace. By further incorporating environmental considerations into public purchasing, the City of Dunwoody will positively impact human health and the environment, remove unnecessary hazards from its operations, reduce costs and liabilities, and improve the environmental quality of the region. As such the City encourages the incorporation of environmental sustainability into proposals.

DIRECTIONS TO DUNWOODY CITY HALL

From I-285 take Exit 29 (Ashford-Dunwoody Rd.) and turn North. At fourth traffic light, turn right onto Perimeter Center East. The entrance to the parking lot for 41 Perimeter East will be on the right. The City of Dunwoody offices are on the second floor of 41 Perimeter Center East.

GEO HYDRO ENGINEERS

Report of Comprehensive Asbestos Survey

Brook Run Park
Dunwoody, DeKalb County, Georgia

Dunwoody Public Works
January 23, 2014

Mr. Brent Walker
Dunwoody Public Works
41 Perimeter Center East
Suite 250
Dunwoody, Georgia 30346

January 23, 2014

Report of
Pre-Demolition Environmental Assessments
Brook Run Park Buildings
Dunwoody, DeKalb County Georgia
Geo-Hydro Project Number 130572.00

Dear Mr. Walker:

Geo-Hydro Engineers, Inc. has completed the Pre-Demolition Asbestos Survey for Brook Run Park's two one-story administrative buildings, a theater, and a two-story dormitory. Brook Run Park is located at Georgia Way South in Dunwoody, DeKalb County, Georgia. The purpose of the pre-demolition surveys is to identify and quantify regulated materials that require special handling during demolition.

Our work was done in general accordance with our proposal 16291 dated October 14, 2013. This report and our observations are intended solely for the benefit of Dunwoody Public Works and may not be used or relied upon by any other party without Geo-Hydro's prior written consent.

SITE DESCRIPTION

The subject property consists of two one-story administrative buildings, a theater, and a two-story dormitory located on the Brook Run Park property located at Georgia Way South in Dunwoody, DeKalb County, Georgia. The approximate site location is shown on Figure 1 in the Appendix. Details of the two one-story administrative buildings, a theater, and a two-story dormitory listed below:

- The two one-story administrative buildings are unoccupied slab-on-grade concrete block and brick structures with shingle/paper roof systems. The exterior walls are brick. The above-ceiling space was observed to be un-insulated. The buildings' ceilings were suspended 12-inch and 24-inch ceiling tiles, the interior walls were brick and concrete block, and the concrete floor was covered by 12-inch and 36-inch floor tiles. The observed plumbing systems were un-insulated or insulated with fiberglass.

- The theatre building is an unoccupied concrete, block and brick structure with a basement and with a shingle/paper roof system. The exterior walls are brick. The attic space was observed to be un-insulated. The building's ceilings were suspended 24-inch ceiling tiles and spray-on insulated ceilings. The interior walls were brick, concrete block, and concrete block covered by a plaster skim coat. The concrete floor on the main level was covered by 12-inch and 36-inch floor tiles and the concrete floor in the basement was uncovered concrete. The observed plumbing systems were un-insulated or insulated with fiberglass.

- The dormitory building is an unoccupied concrete, block and brick structure consisting of two levels with a metal roof system. The exterior walls are brick. The attic space was observed to be un-insulated. The building's ceilings were suspended 12-inch and 24-inch ceiling tiles. The interior walls were brick, concrete block, and drywall. The concrete floor on the main level was covered by 12-inch and 36-inch floor tiles and the concrete floor in the basement was uncovered concrete. The observed plumbing systems were un-insulated or insulated with fiberglass.

PROCEDURES

Suspect Asbestos and Lead-Based Paint Sampling

Mr. Jarrett Baggett a certified Asbestos-In-Buildings Inspector (Toxic Substances Control Act (TSCA) Title II) performed an asbestos and lead-based paint screen for the subject property administrative buildings on November 1, 2013, the dormitory building on December 5, 2013, and the theatre building on December 12, 2013. The asbestos screen was performed in general accordance with **ASTM E2356-10** *Standard Practice for Comprehensive Building Asbestos Surveys*. Mr. Baggett expended reasonable time and effort to identify and sample as many homogeneous areas of suspect asbestos containing building materials (ACMs) and lead-based paint (LBP) as possible. Visually identified suspect materials were sampled to represent conditions of accessible building space.

Due to the hidden nature of many building components it may be impossible to determine if all of the suspected building materials have been located and tested. Destructive testing in some cases is not a viable option. Therefore, we cannot guarantee that all suspect ACMs have been located and sampled. For the same reasons, estimates of ACM quantities and current physical conditions are subject to observations made during the site visit. In the event that suspect ACMs are discovered, please contact Geo-Hydro to examine and possibly collect additional building material samples.

A total of 75 samples of suspect ACMs were collected and analyzed for asbestos. The suspect asbestos samples were submitted to EMSL Analytical, Inc. (EMSL) in Smyrna, Georgia. EMSL is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA) for bulk asbestos fiber analysis. The samples were analyzed for asbestos content using polarized light microscopy (PLM) and dispersion staining (EPA Method 600/R-93/116). During transportation and storage, a chain-of-custody form was maintained and signed by each individual in possession of the samples. Copies of the analytical test results and chain-of-custody form are included in the Appendix.

FINDINGS

Asbestos Containing Building Materials

The ACM samples and corresponding percent (%) of asbestos detected are noted below. The quantities of ACM noted are provided for informational purposes only, and are not to be used for asbestos abatement cost

estimates. **Asbestos contractors are expected to calculate their own ACM quantities for cost estimating and regulatory notification purposes.**

Two One-Story Administrative Buildings:

Mechanical Room Fire Doors: Laboratory analysis detected 30% chrysotile asbestos and 20% amosite asbestos in sample BRN-13 of the mechanical room fire door in the northern administrative building. All of the building's fire doors should be considered Category I non-friable ACM as long as the fire door is removed using methods that will not cause the interior of the door to be friable.

White (12-Inch Square) Ceiling Tile: Laboratory analysis detected 2% chrysotile asbestos and 2% amosite asbestos in samples BRS-05 and BRS-06 of ceiling tile. The ceiling tile system is a Category I non-friable ACM as long as the ceiling tile system is removed using methods that will not cause the ceiling tile system to be friable. Approximately 3,800 square feet of ceiling tile were observed in the northern administrative building, and approximately 2,600 square feet of ceiling tile were observed in the northern administrative building.

Dormitory Building:

Central Room Fire Door: Laboratory analysis detected 60% chrysotile asbestos and 30% amosite asbestos in samples DS-13 and DS-14 of the central room fire doors that close off the quarter sections of the dorms. The fire doors are a Category I non-friable ACM as long as the fire doors are removed using methods that will not cause the interior of the doors to be friable.

White (12-Inch Square) Ceiling Tile: Laboratory analysis detected 3% chrysotile asbestos and 3% amosite asbestos in sample DS-9 of the ceiling tile. The ceiling tile system is a Category I non-friable ACM as long as the ceiling tile system is removed using methods that will not cause the ceiling tile system to be friable. Approximately 216 square feet of ceiling tile were observed in the in the upstairs computer room of the dormitory.

Mastic under Beige (36-Inch Square) Floor Tile: Laboratory analysis detected 2% chrysotile asbestos in sample DS-07 of the beige, 36-inch square floor tile mastic, and laboratory analysis did not detect asbestos minerals in sample DS-08 of the beige, 36-inch square floor tile mastic. The floor tile system is a Category I non-friable ACM as long as the floor tile system is removed using methods that will not cause the floor tile system to be friable. Although laboratory analysis did not detect asbestos minerals in sample DS-08, it is the opinion of Geo-Hydro that mastic beneath all beige, 36-inch square floor tile be treated as an ACM. Approximately 3,500 square feet of floor tile were observed in the upstairs central room of the dormitory building.

Theatre Building:

Mastic Under Black and White (12-Inch Square) Floor Tile: Laboratory analysis detected 5%, 3%, 2%, and 2% chrysotile asbestos in samples TS-01 through TS-04, respectively, of the black and white, 12-inch square floor tile mastic. The floor tile system is a Category I non-friable ACM as long as the floor tile

system is removed using methods that will not cause the floor tile system to be friable. Approximately 1,300 square feet of black and white, 12-inch square floor tile were observed in the front lobby area of the theatre building.

White (24-Inch Square) Ceiling Tile: Laboratory analysis detected 2% amosite asbestos in samples TS-05 and TS-06 of the ceiling tile. The ceiling tile system is a Category I non-friable ACM as long as the ceiling tile system is removed using methods that will not cause the ceiling tile system to be friable. Approximately 5,000 square feet of 24-inch square ceiling tile were observed throughout the main floor of the theatre building. An additional 2,700 square feet of 12-inch square ceiling tile were observed in the chapel room and gym room of the theatre building. Although a sample of this 12-inch square ceiling tile was not collected, it is the same 12-inch square ceiling tile that was observed in the administrative buildings and found to contain 2% chrysotile asbestos and 2% amosite asbestos. It is the opinion of Geo-Hydro that all 12-inch square ceiling tile in the Theatre Building be treated as an ACM.

Spray on Surfacing Material: Laboratory analysis detected 20% chrysotile asbestos in samples TS-10 and TS-11 and TS-14 through TS-18 of the gray spray on surfacing material located on the structural steel in the basement and on the ceiling of the upstairs projection room of the theatre building. The surfacing material system is a Regulated Asbestos Containing Material (RACM). All of the structural steel in the basement and approximately 650 square feet of ceiling area in the upstairs projection room of the theatre of the theatre building contain the surfacing material. It is likely that additional structural members that are coated with the surfacing material will be uncovered during demolition.

CONCLUSIONS AND RECOMMENDATIONS

Prior to renovation or demolition, a licensed asbestos abatement contractor should remove and dispose of the asbestos-containing materials identified by this report. Georgia EPD requires notifications for demolition of ACMs encompassing 10 or more square feet. Additionally, ACMs encompassing at least 10 square feet are regulated by the U.S. Environmental Protection Agency (USEPA) under the National Emission Standards for Hazardous Air Pollutants (NESHAP) and also by the Occupational Safety and Health Administration (OSHA) under its worker protection regulations. These regulations require special handling and disposal procedures when asbestos containing materials are disturbed.

* * * * *

Geo-Hydro Engineers, Inc. has appreciated the opportunity to perform this environmental testing. If you have any questions concerning this report, or if we can be of further assistance, please call us.

Sincerely,

GEO-HYDRO ENGINEERS, INC.

Jarrett Baggett, P.G.
Environmental Services Director
jbaggett@geohydro.com

Mason F. Berryman, P.E., LEED AP
Principal Engineer
mason@geohydro.com

LJB/MFB/130572.00 Brook Run Park ACM Survey Report.doc

FIGURES and PHOTOGRAPHS

GEO HYDRO ENGINEERS

Plate 1: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample BRS-01 collected from the South Administrative Building west room.

Plate 2: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample BRS-02 collected from the South Administrative Building west room.

Plate 3: Laboratory analyses did not detect asbestos minerals within the floor tile or mastic sample BRS-03 collected from the South Administrative Building east room.

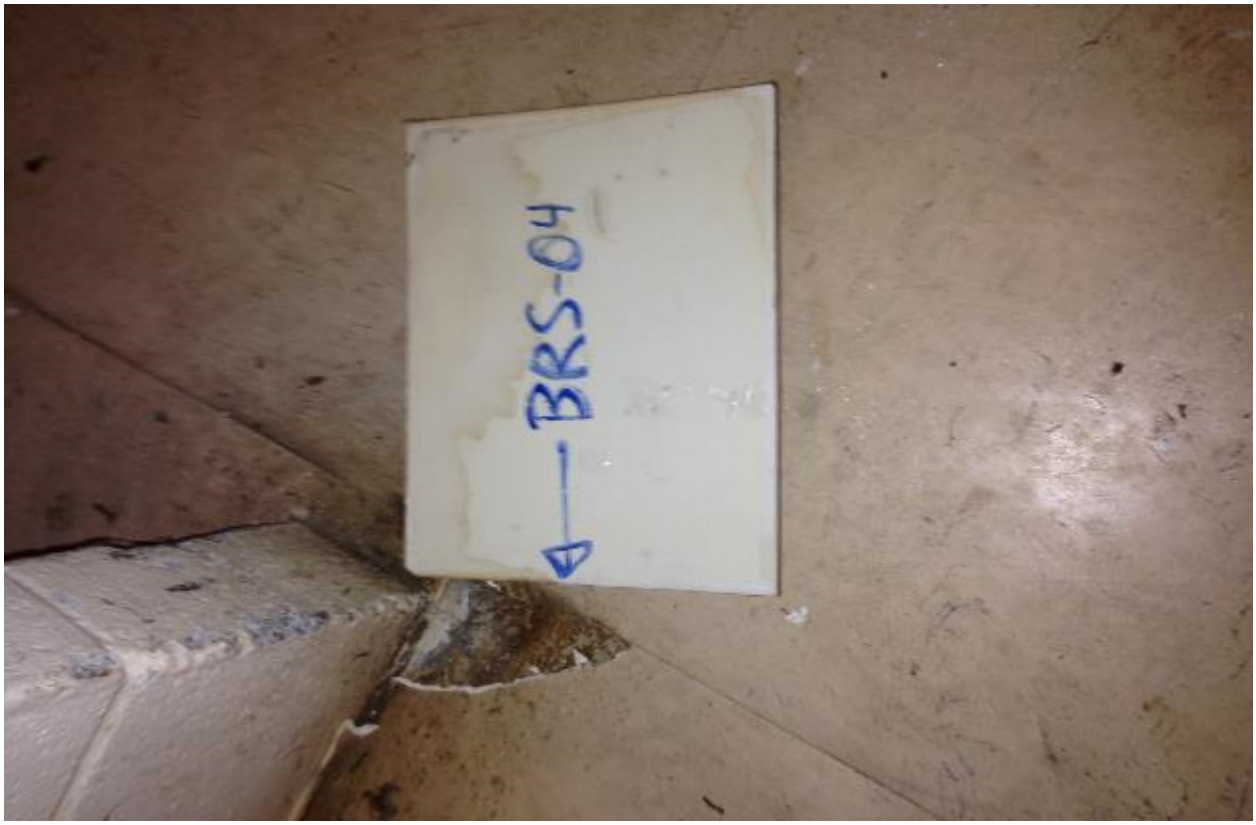


Plate 4: Laboratory analyses did not detect asbestos minerals within the floor tile or mastic sample BRS-03 collected from the South Administrative Building east room.

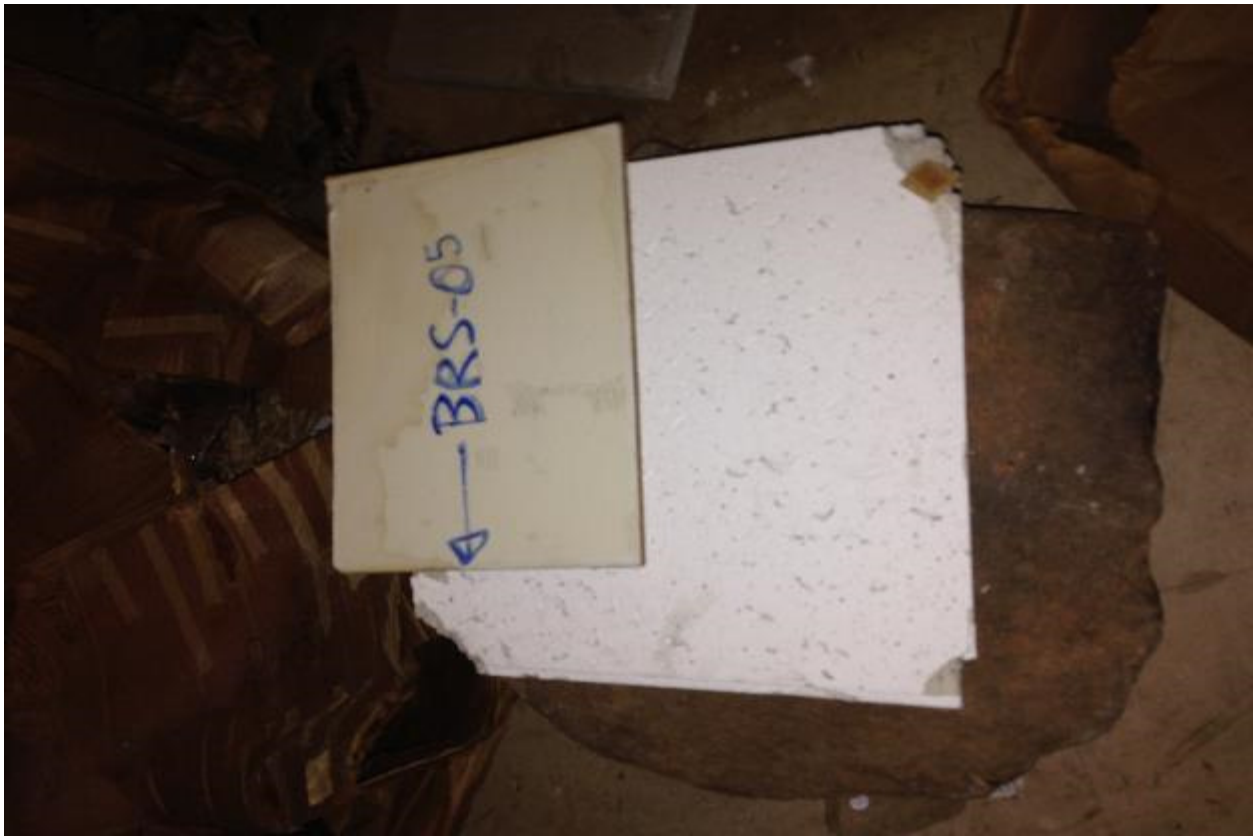


Plate 5: Laboratory analyses detected 2% chrysotile asbestos and 2% amosite asbestos within suspended ceiling tile sample BRS-05 collected from the South Administrative Building east rooms.

Plate 6: Laboratory analyses detected 2% chrysotile asbestos and 2% amosite asbestos within suspended ceiling tile sample BRS-06 collected from the South Administrative Building east rooms.

Plate 7: Laboratory analyses did not detect asbestos minerals within the window caulk sample BRS-07 collected from the South Administrative Building windows.

Plate 8: Laboratory analyses did not detect asbestos minerals within the window caulk sample BRS-08 collected from the South Administrative Building windows.

Plate 9: Laboratory analyses did not detect asbestos minerals within pipe elbow wrap sample BRS-09 collected from the South Administrative Building east rooms.

Plate 10: Laboratory analyses did not detect asbestos minerals within HVAC gasket sample BRN-10 collected from the North Administrative Building mechanical room.

Plate 11: Laboratory analyses did not detect asbestos minerals within HVAC insulation sample BRN-11 collected from the North Administrative Building mechanical room.

Plate 12: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample BRN-12 collected from the North Administrative Building mechanical room.

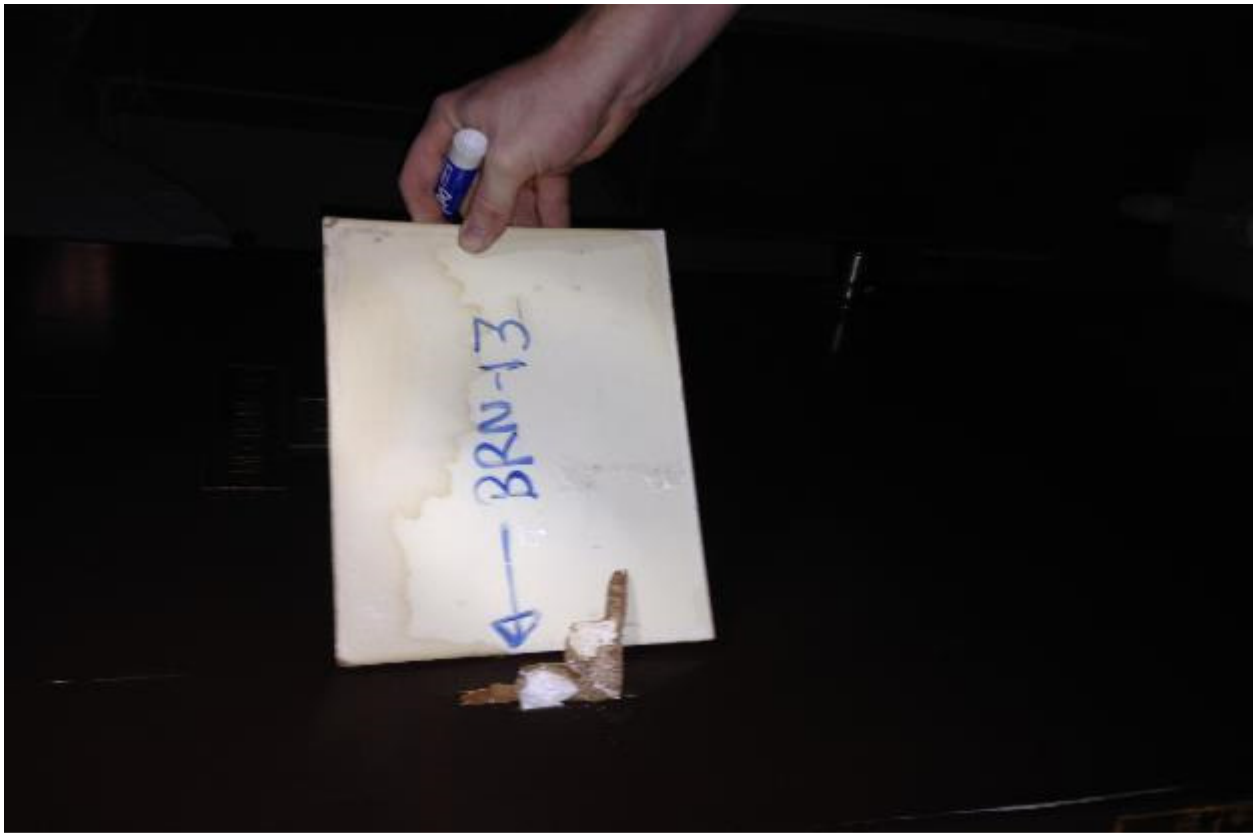


Plate 13: Laboratory analyses detected 30% chrysotile asbestos and 20% amosite asbestos within mechanical room fire door sample BRR-13 collected from the North Administrative Building mechanical room.

Plate 14: Laboratory analyses did not detect asbestos minerals within the floor tile or mastic sample BRN-14 collected from the North Administrative Building north rooms.

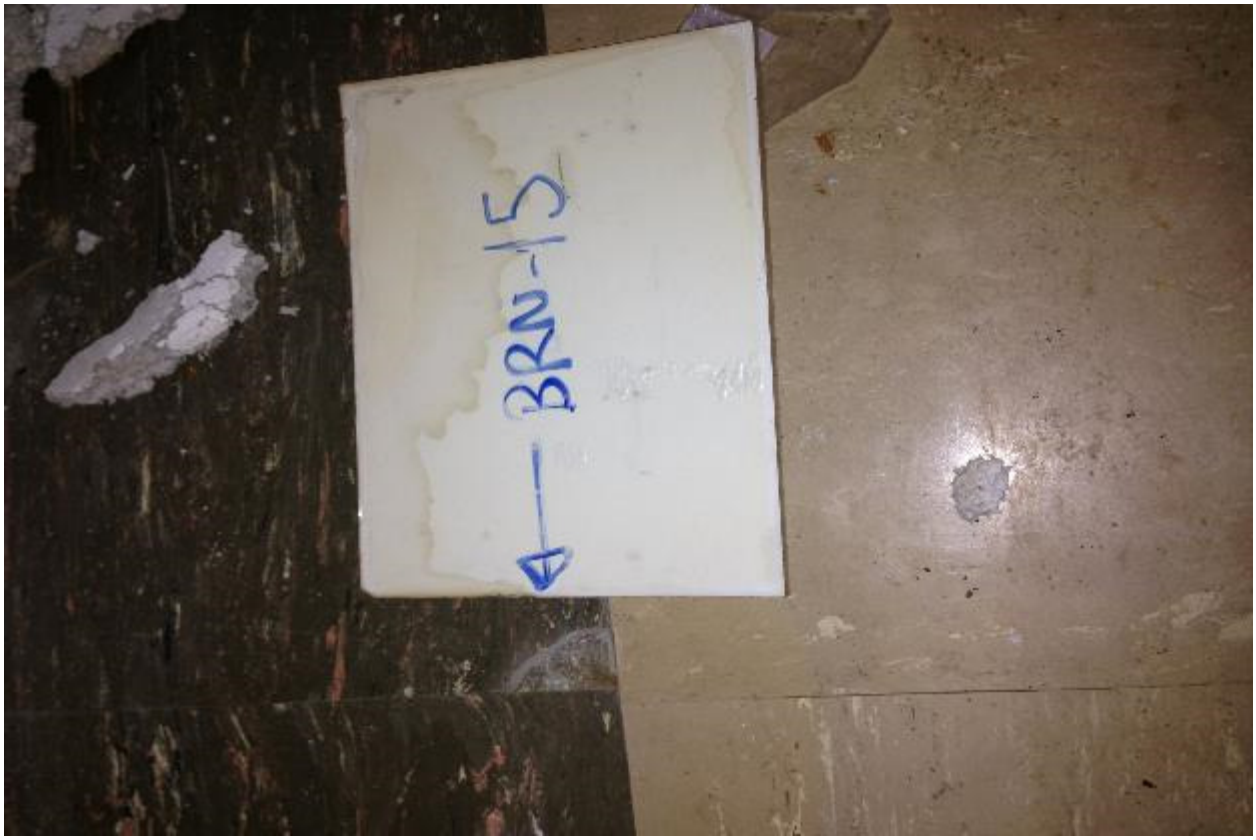


Plate 15: Laboratory analyses did not detect asbestos minerals within the floor tile or mastic sample BRN-15 collected from the North Administrative Building north rooms.

Plate 16: Laboratory analyses did not detect asbestos minerals within HVAC gasket sample BRN-16 collected from the North Administrative Building mechanical room.

Plate 17: Laboratory analyses did not detect asbestos minerals within Boiler Wrap sample BRN-17 collected from the North Administrative Building mechanical room.

Plate 18: Laboratory analyses did not detect asbestos minerals within Boiler Wrap sample BRN-18 collected from the North Administrative Building mechanical room.

Plate 19: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample BRN-19 collected from the North Administrative Building mechanical room.

Plate 20: Laboratory analyses did not detect asbestos minerals within asphalt roof sample BRN-20 collected from the North Administrative Building roof.

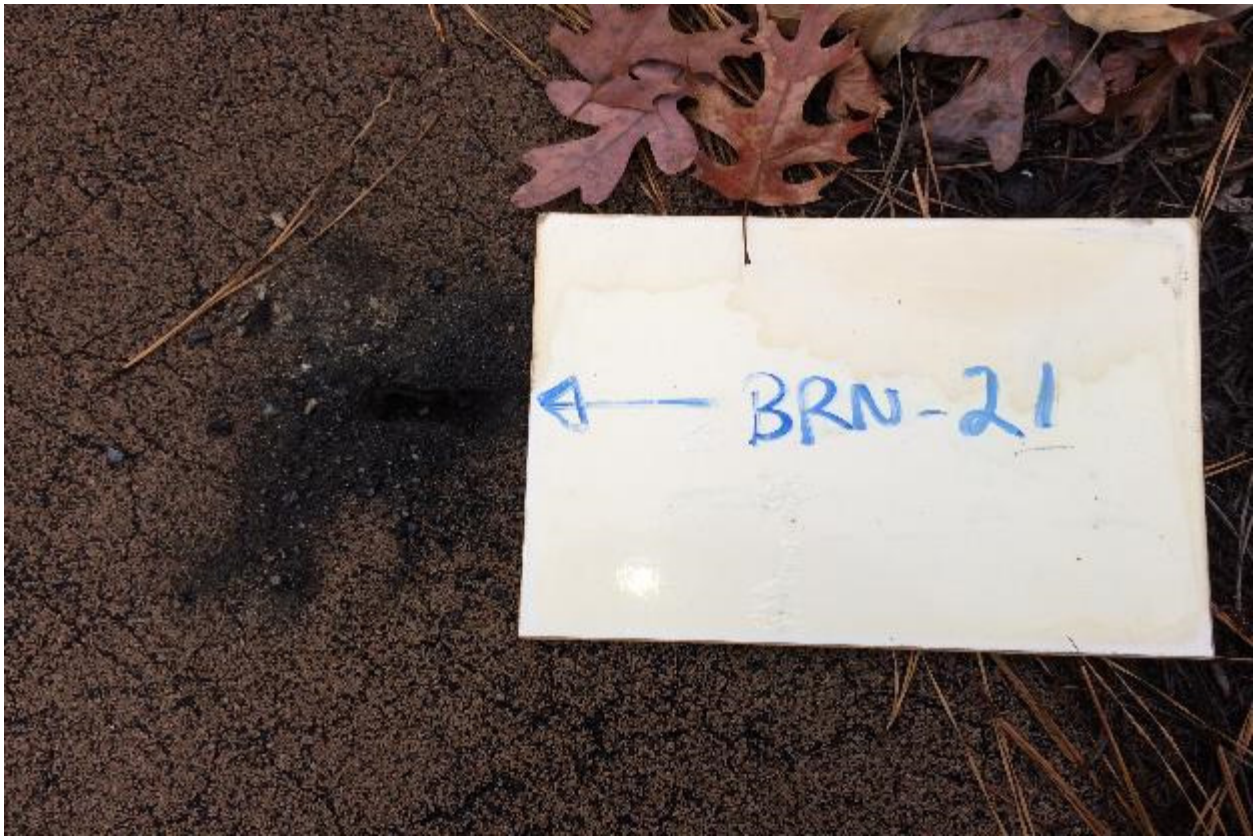


Plate 21: Laboratory analyses did not detect asbestos minerals within asphalt roof sample BRN-21 collected from the North Administrative Building roof.

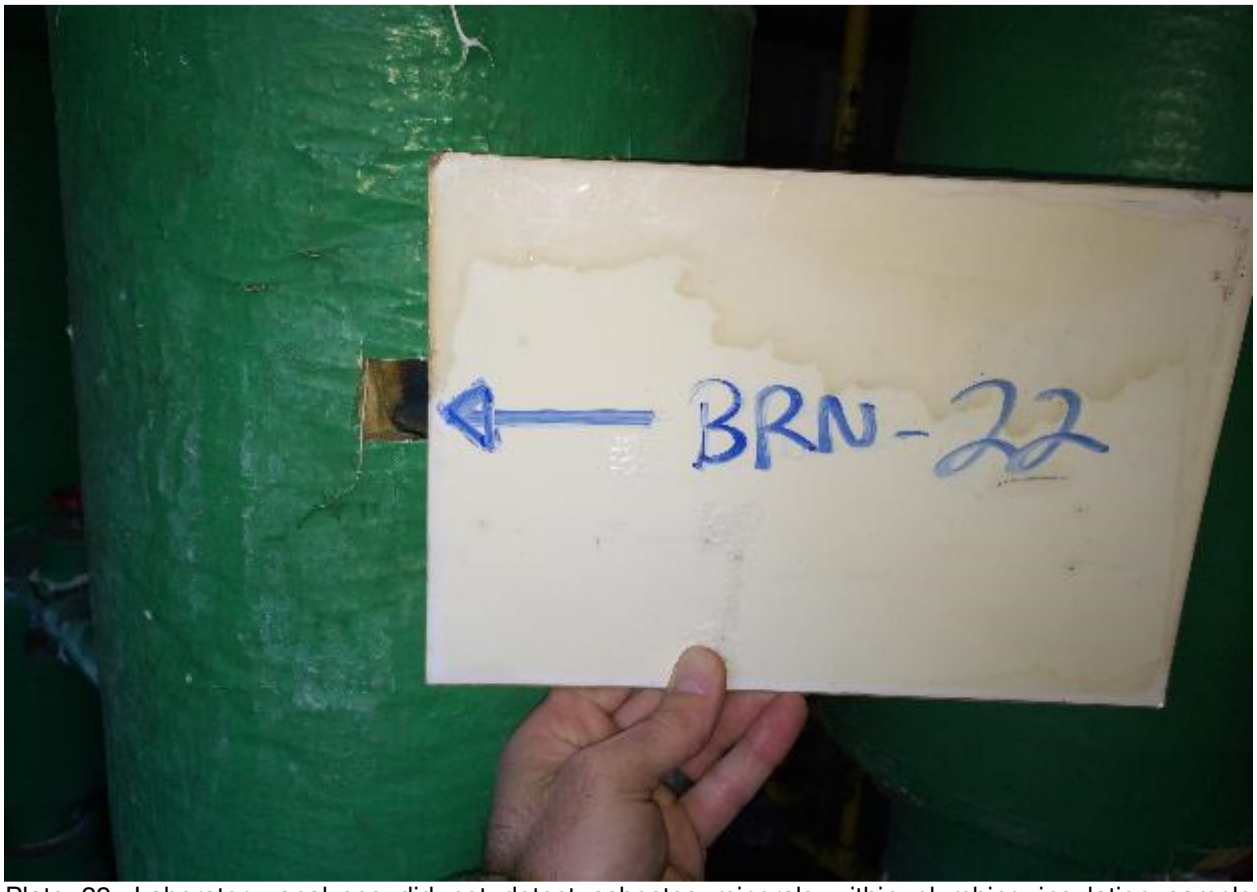


Plate 22: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample BRN-22 collected from the North Administrative Building outdoor mechanical room.

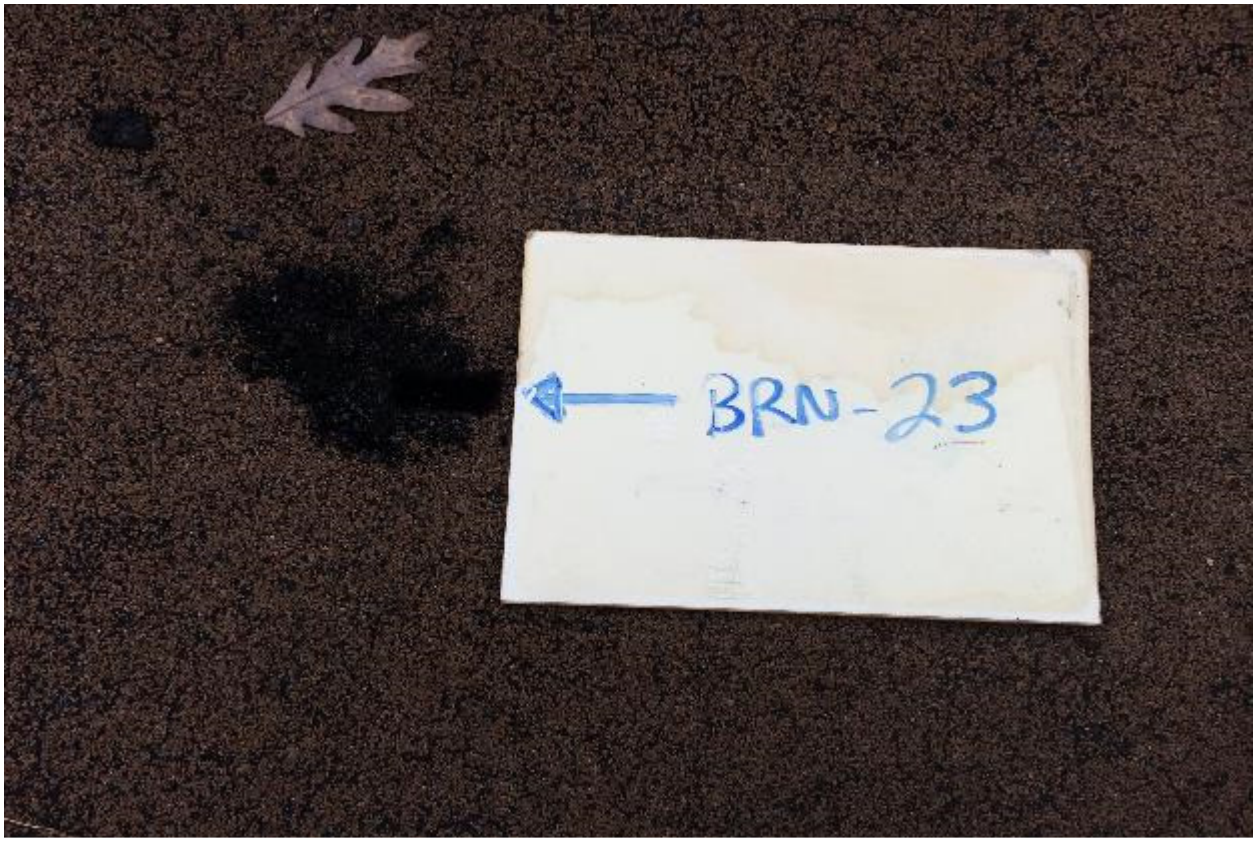


Plate 23: Laboratory analyses did not detect asbestos minerals within asphalt roof sample BRN-23 collected from the South Administrative Building roof.

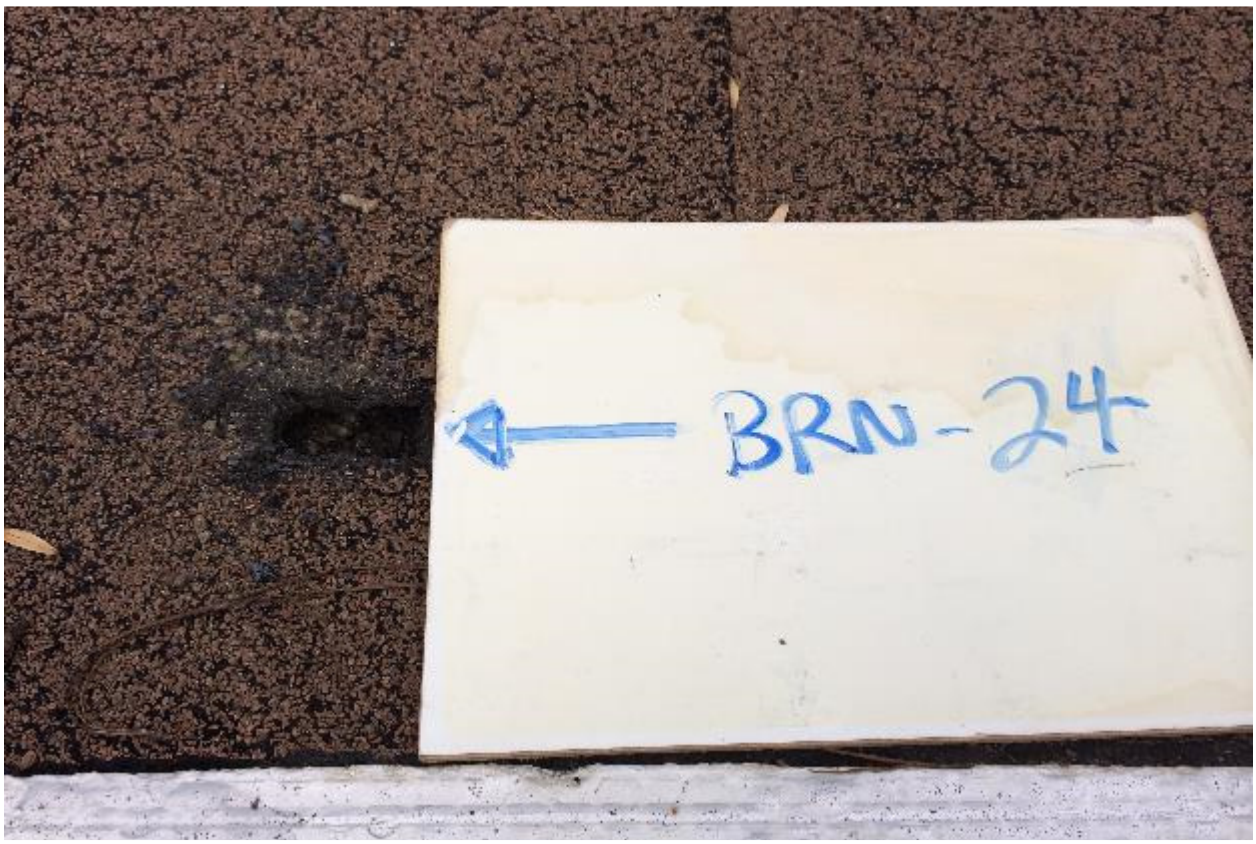


Plate 24: Laboratory analyses did not detect asbestos minerals within asphalt roof sample BRN-24 collected from the South Administrative Building roof.

Plate 25: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample BRN-25 collected from the South Administrative Building outdoor mechanical room.

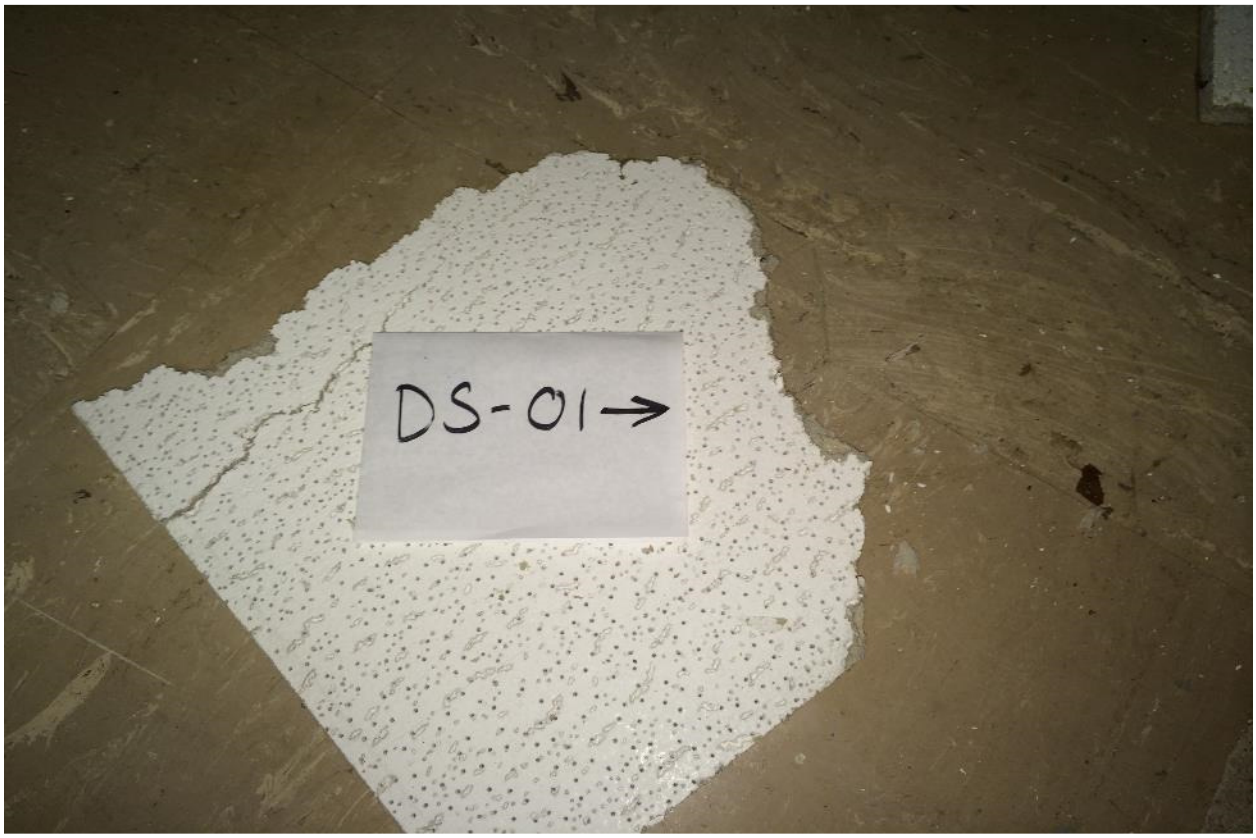


Plate 26: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample DS-01 collected from the Dormitory Building upstairs central room.

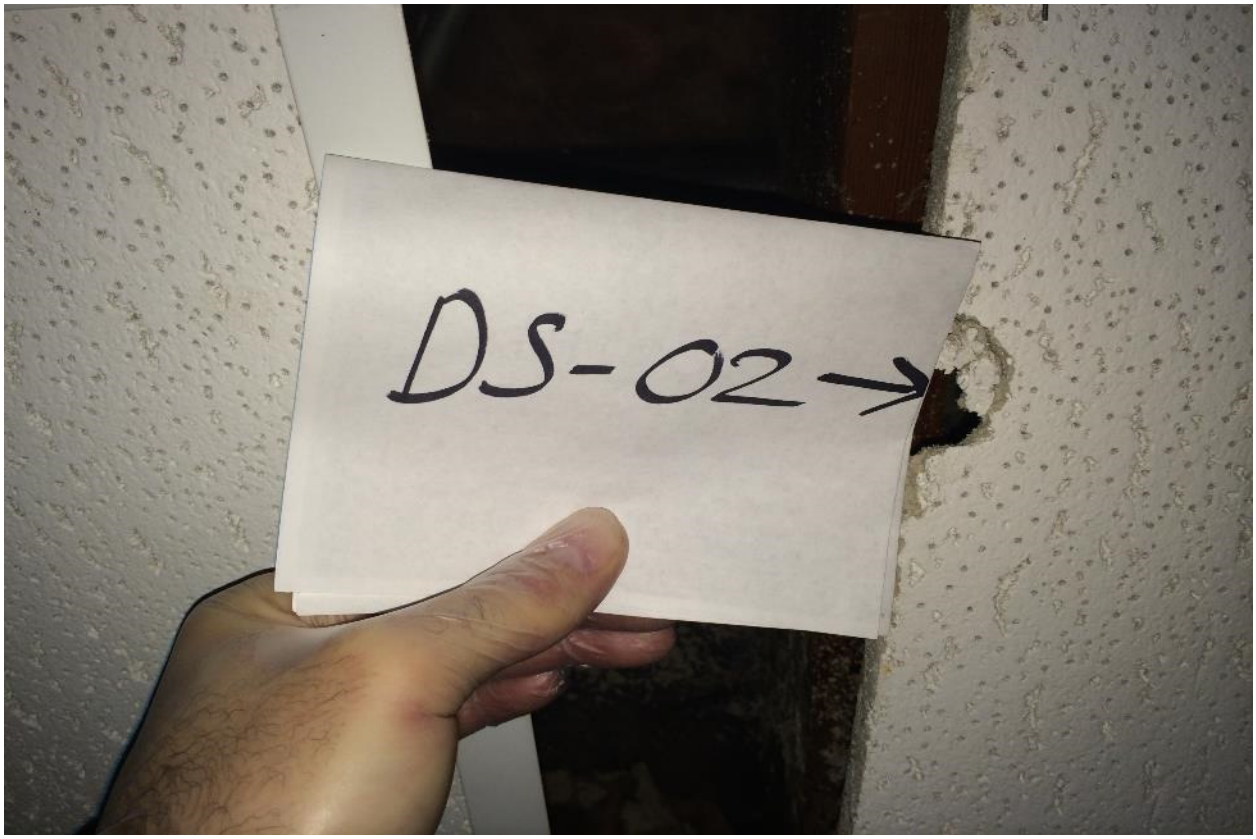


Plate 27: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample DS-02 collected from the Dormitory Building upstairs hallway.

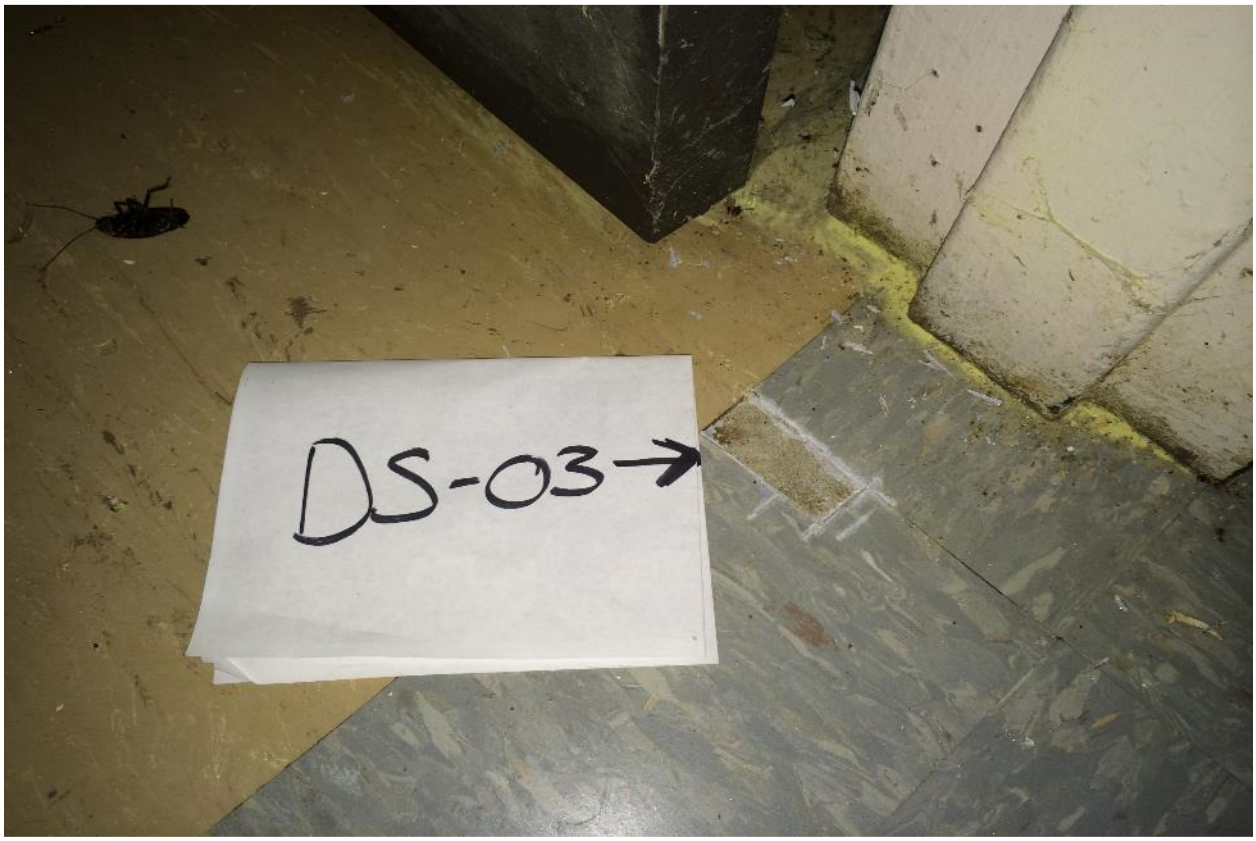


Plate 28: Laboratory analyses did not detect asbestos minerals within the blue floor tile or mastic sample DS-03 collected from the Dormitory Building upstairs central room.

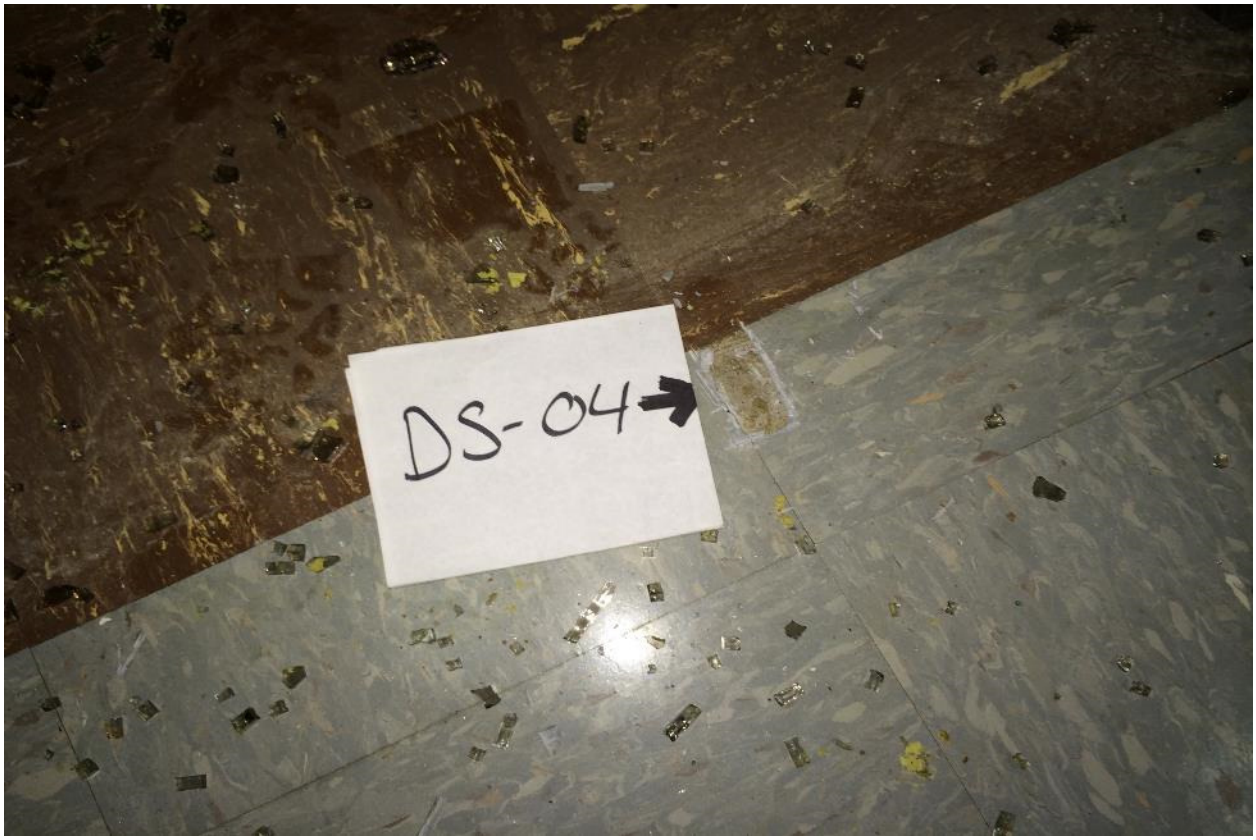


Plate 29: Laboratory analyses did not detect asbestos minerals within the blue floor tile or mastic sample DS-04 collected from the Dormitory Building upstairs central room.

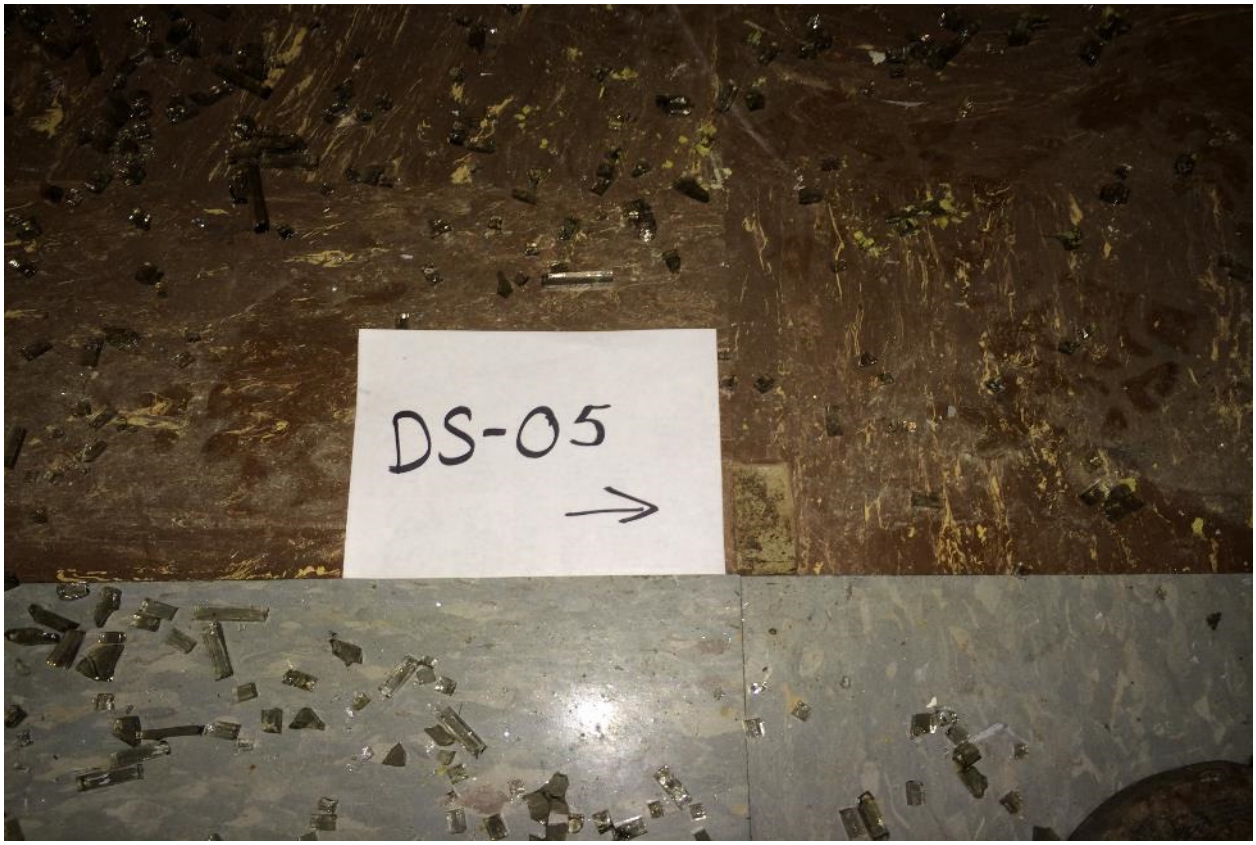


Plate 30: Laboratory analyses did not detect asbestos minerals within the brown floor tile or mastic sample DS-05 collected from the Dormitory Building upstairs computer room.

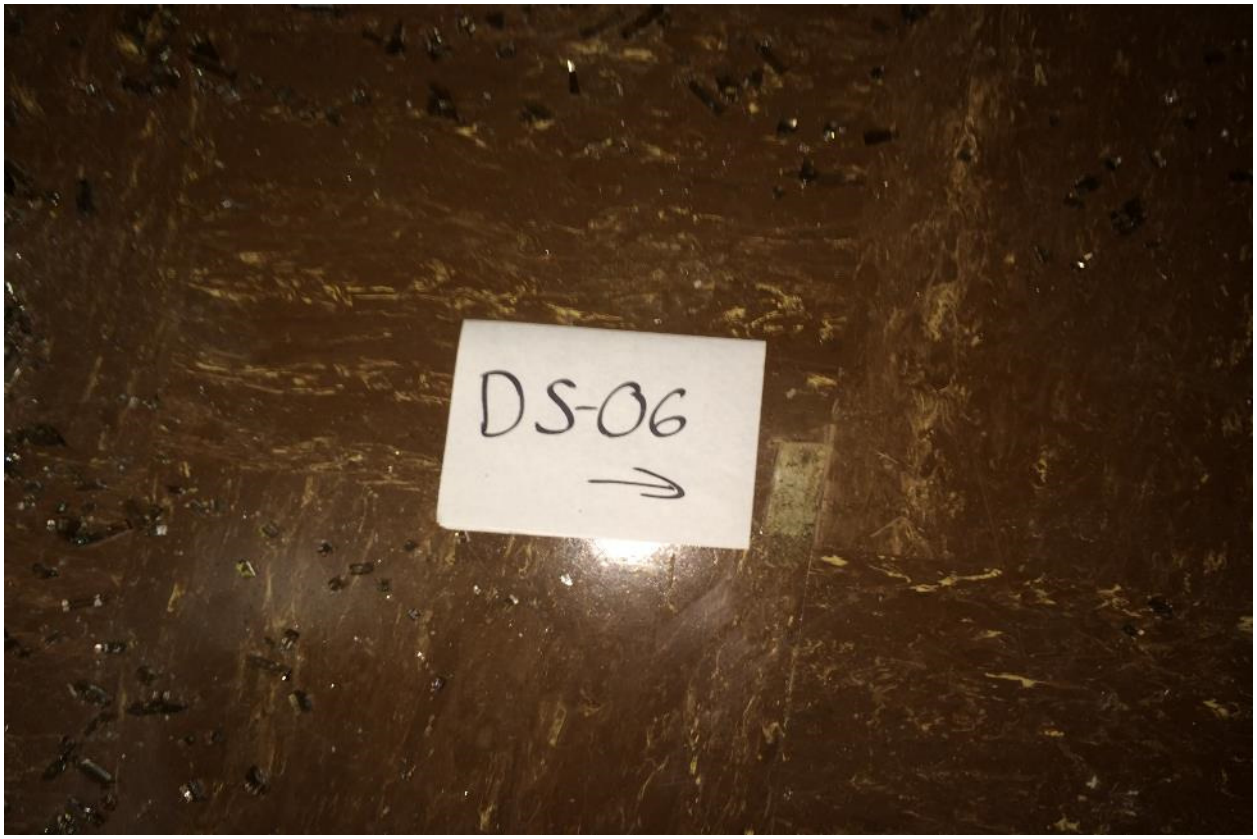


Plate 31: Laboratory analyses did not detect asbestos minerals within the brown floor tile or mastic sample DS-06 collected from the Dormitory Building upstairs computer room.

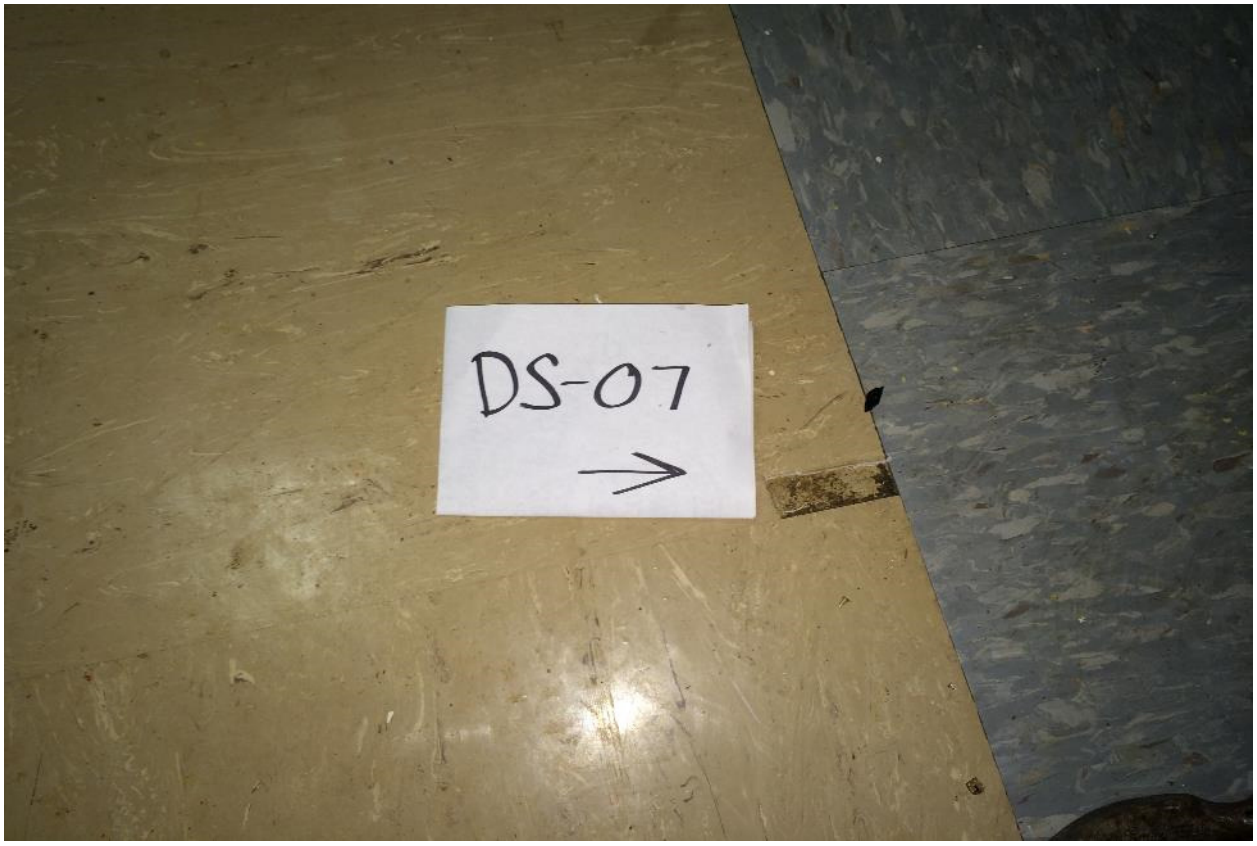


Plate 32: Laboratory analyses did not detect asbestos minerals within the beige floor tile from samle D7-07 but did detect 2% chrysotile asbestos in the mastic from sample DS-07 collected from the Dormitory Building upstairs central room.

Plate 33: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample DS-08 collected from the Dormitory Building upstairs hallway.

Plate 34: Laboratory analyses detected 3% chrysotile asbestos and 3% amosite asbestos within suspended ceiling tile sample DS-09 collected from the Dormitory Building upstairs computer room.

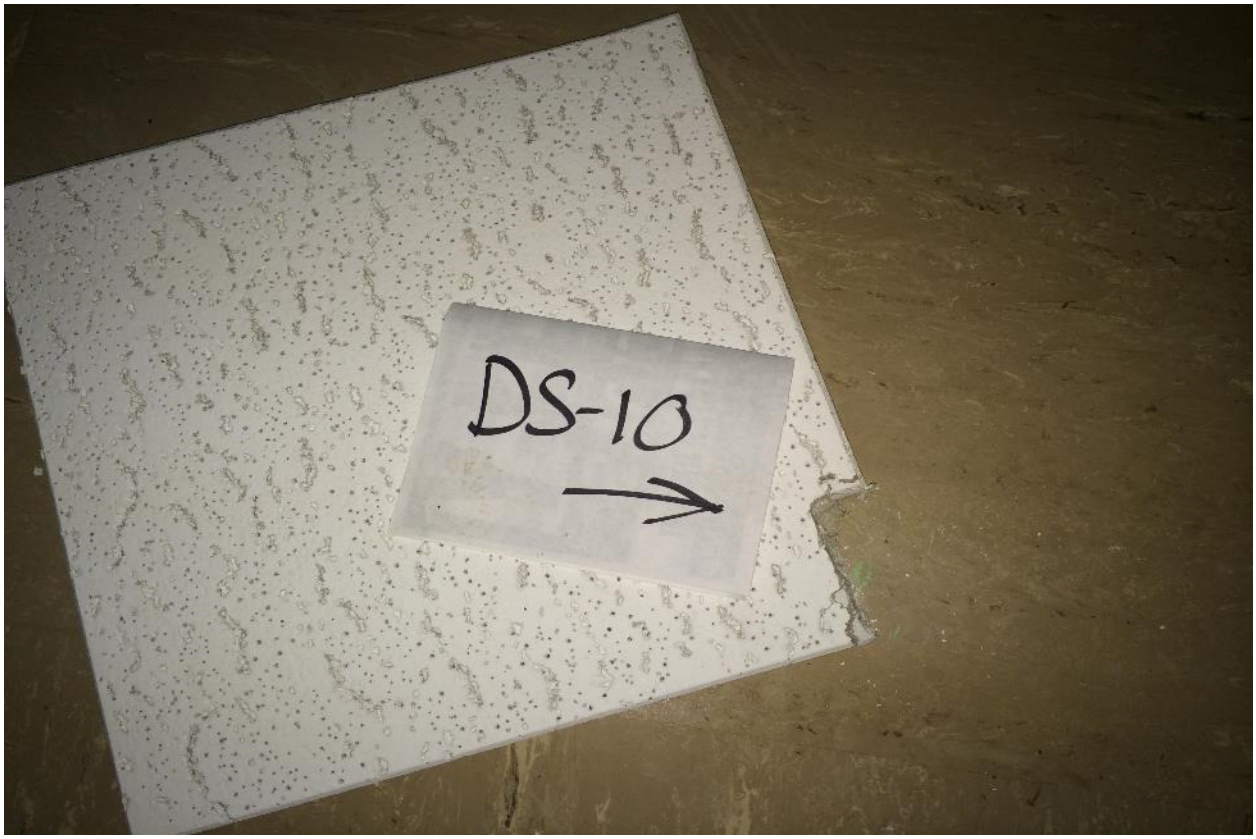


Plate 35: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample DS-10 collected from the Dormitory Building upstairs dorm room.

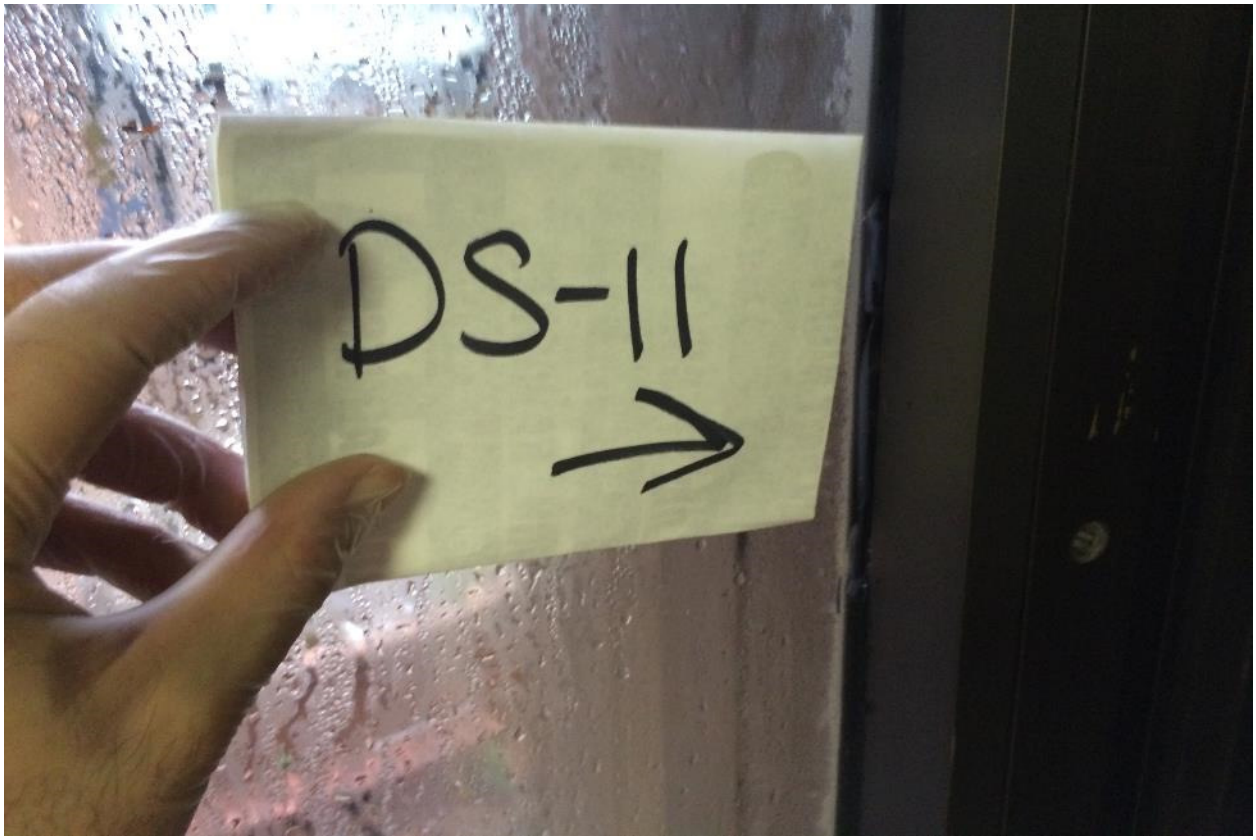


Plate 36: Laboratory analyses did not detect asbestos minerals within the window caulk sample DS-11 collected from the Dormitory Building windows.

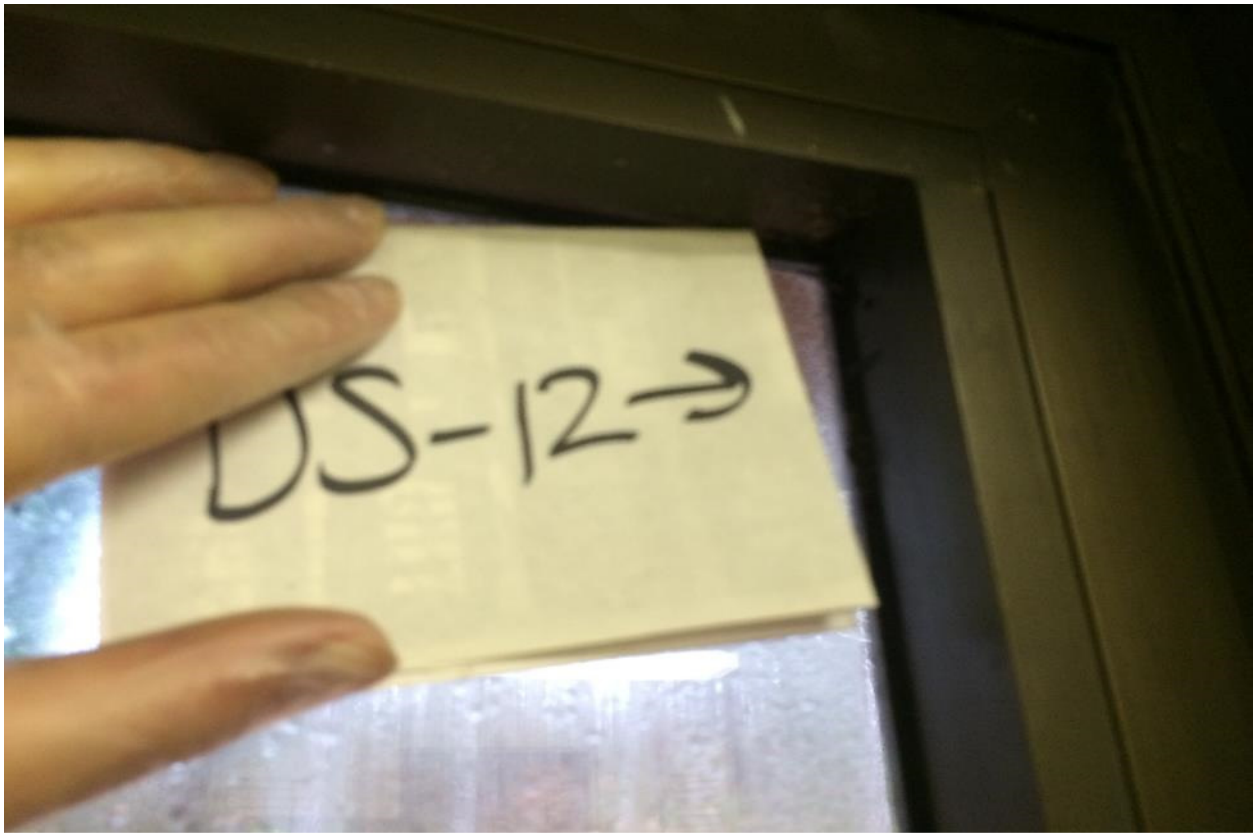


Plate 37: Laboratory analyses did not detect asbestos minerals within the window caulk sample DS-12 collected from the Dormitory Building windows.

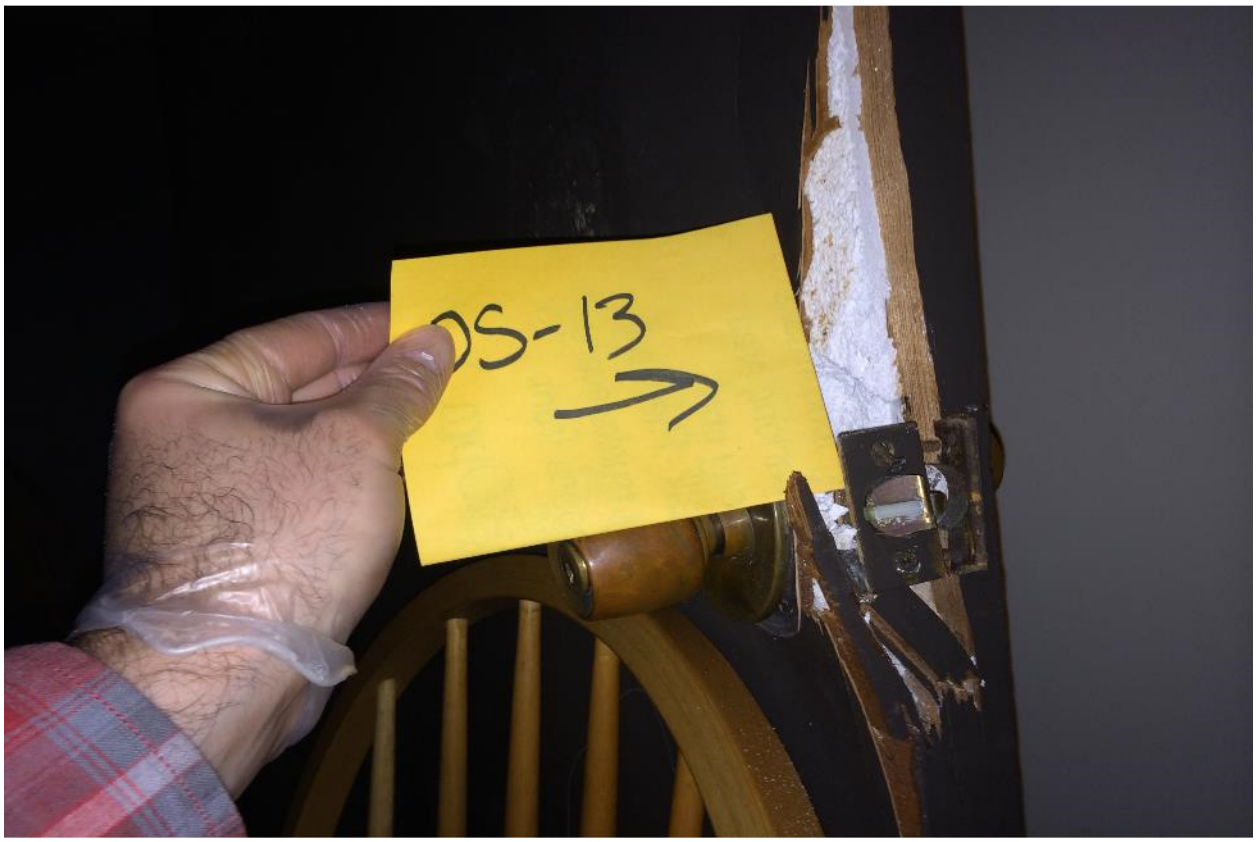


Plate 38: Laboratory analyses detected 60% chrysotile asbestos and 30% amosite asbestos within central room fire door sample DS-13 collected from the Dormitory Building central room door.

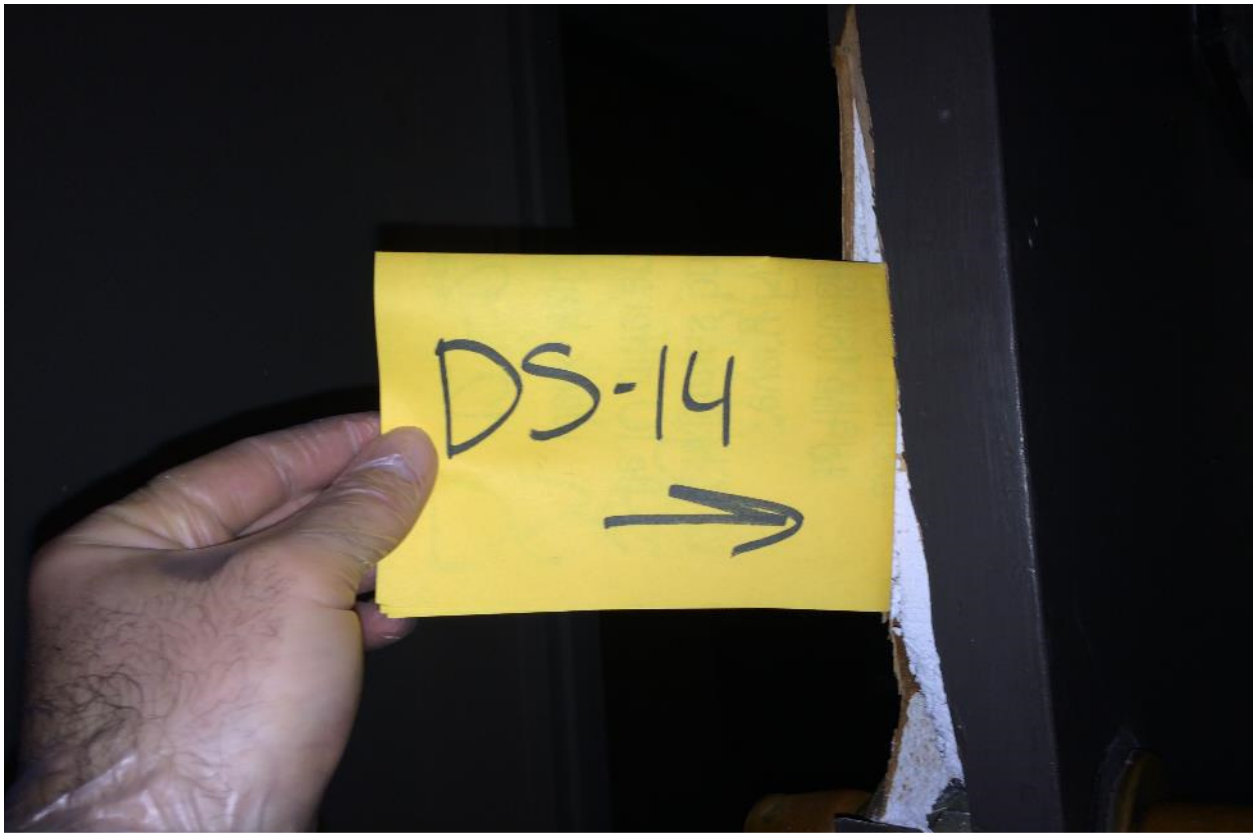


Plate 39: Laboratory analyses detected 60% chrysotile asbestos and 30% amosite asbestos within central room fire door sample DS-14 collected from the Dormitory Building central room door.

Plate 40: Laboratory analyses did not detect asbestos minerals within the tan and white floor tile or mastic sample DS-15 collected from the Dormitory Building downstairs hallways.

Plate 41: Laboratory analyses did not detect asbestos minerals within the tan and white floor tile or mastic sample DS-16 collected from the Dormitory Building downstairs hallways.

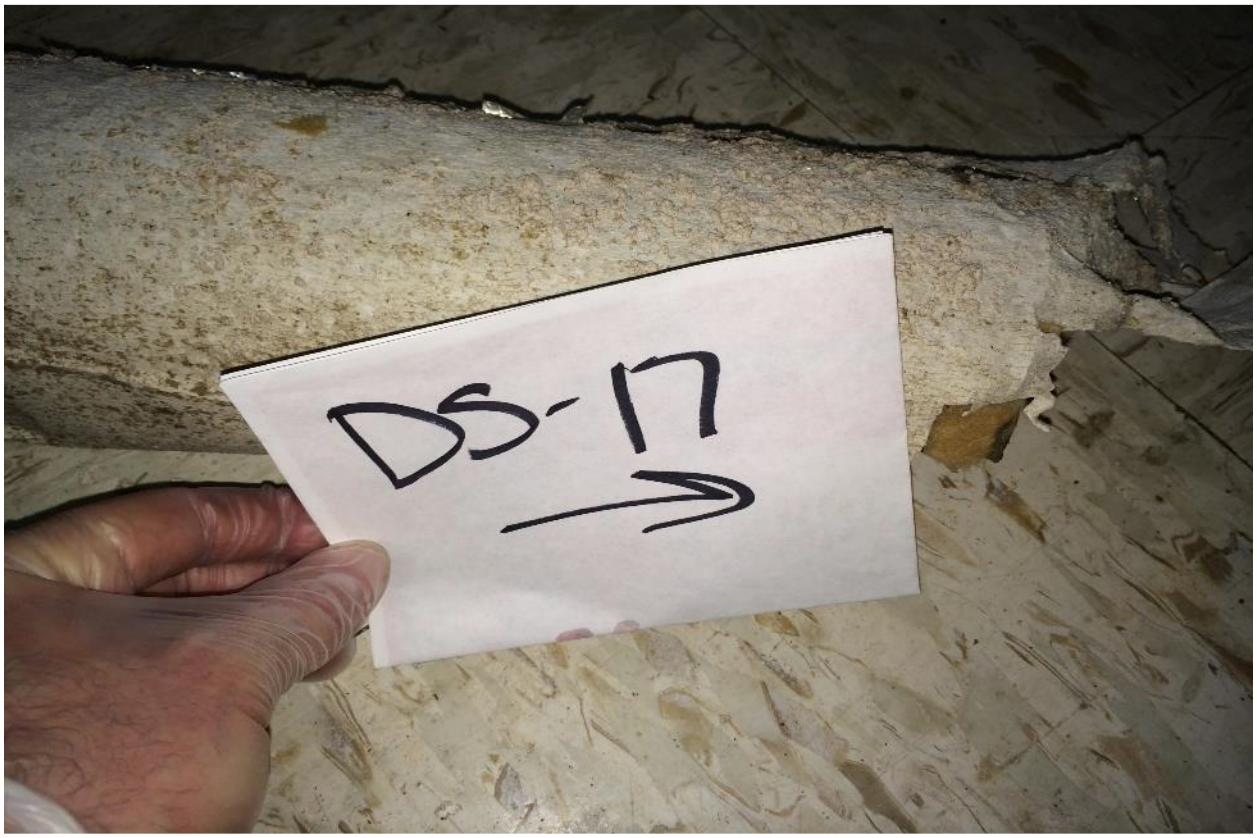


Plate 42: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample DS-17 collected from the Dormitory Building downstairs training room.

Plate 43: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample DS-18 collected from the Dormitory Building downstairs training room.

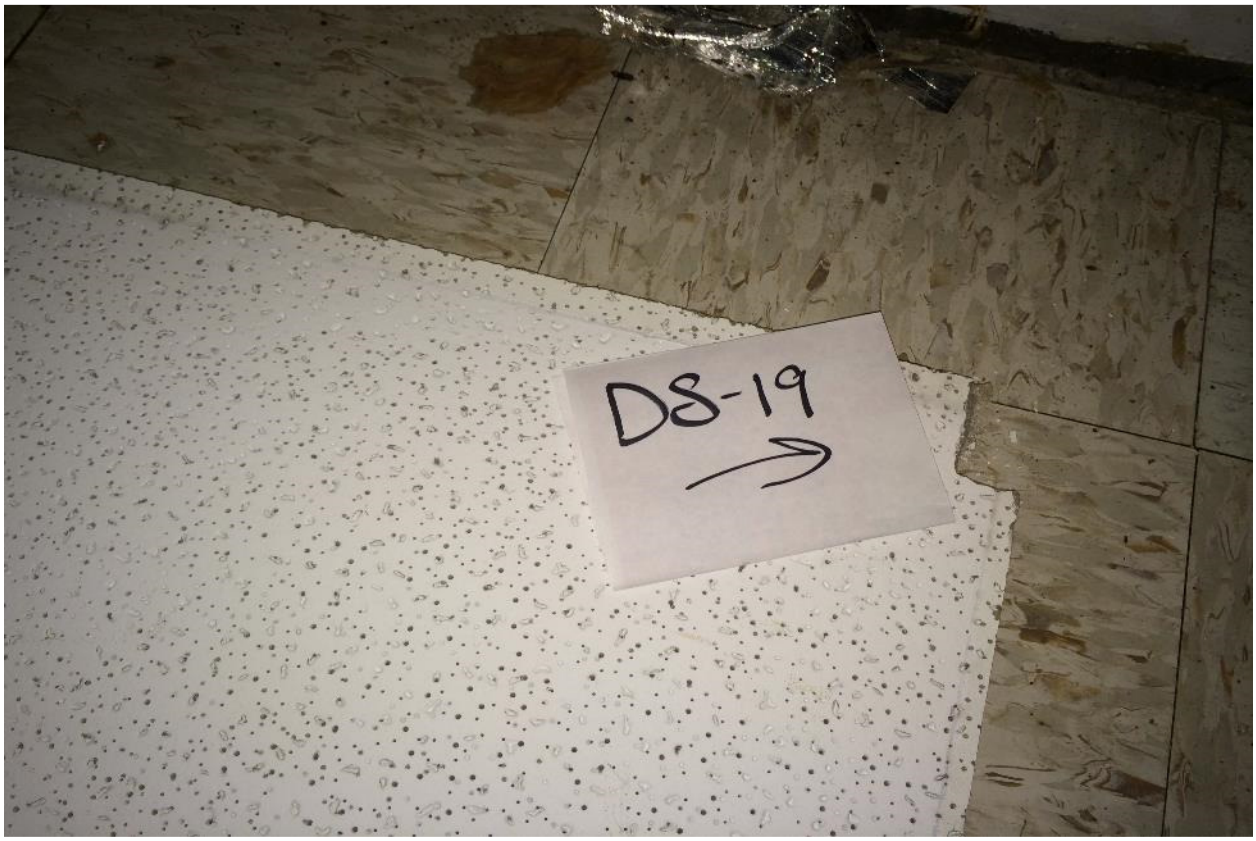


Plate 44: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample DS-19 collected from the Dormitory Building downstairs hallways.

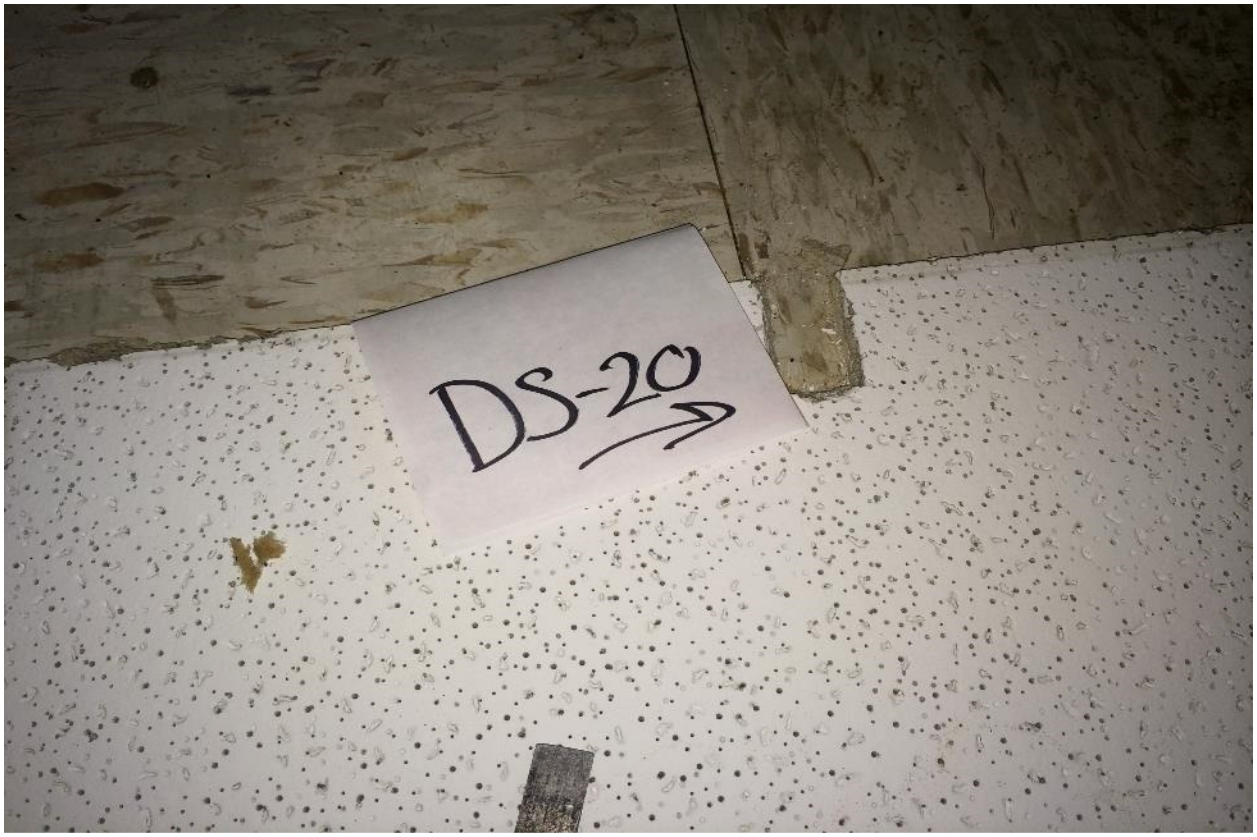


Plate 45: Laboratory analyses did not detect asbestos minerals within suspended ceiling tile sample DS-20 collected from the Dormitory Building downstairs hallways.

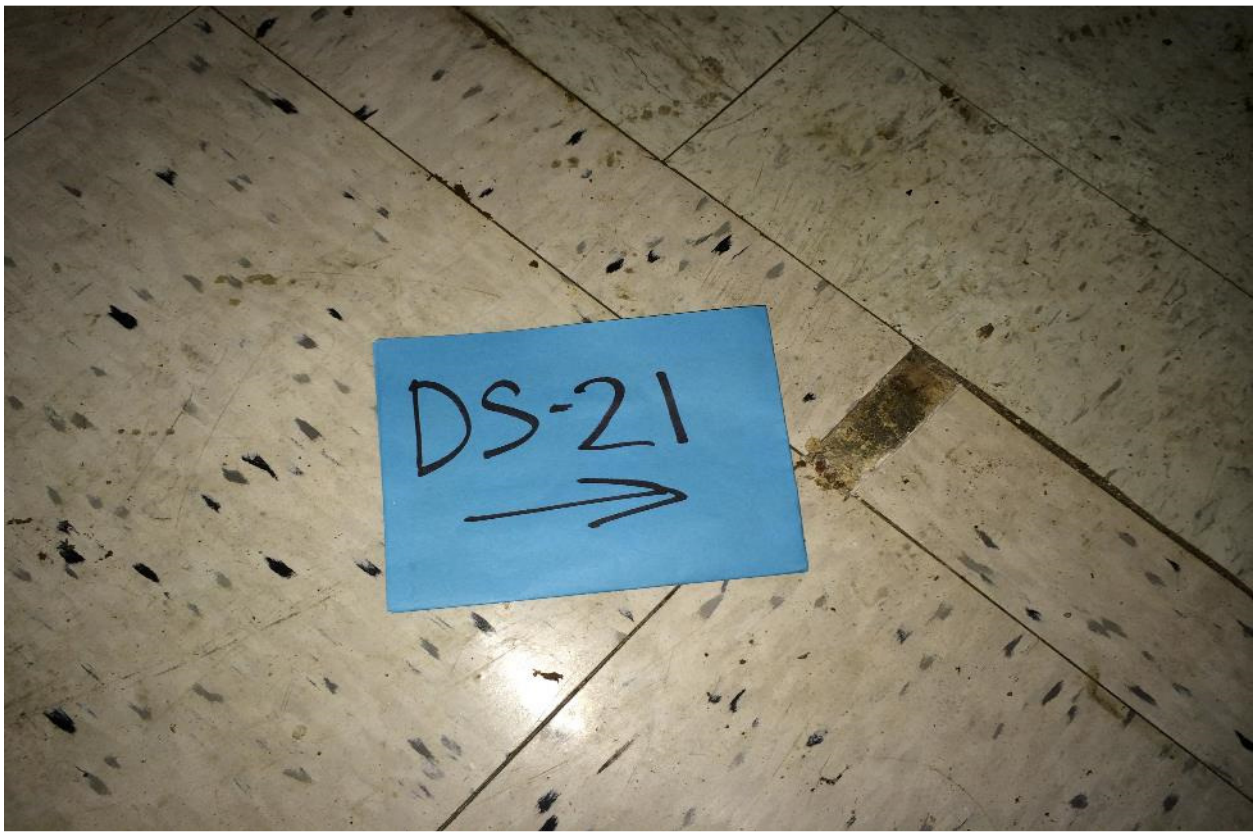


Plate 46: Laboratory analyses did not detect asbestos minerals within the black and white floor tile or mastic sample DS-21 collected from the Dormitory Building downstairs training room.

Plate 47: Laboratory analyses did not detect asbestos minerals within the black and white floor tile or mastic sample DS-22 collected from the Dormitory Building downstairs training room.

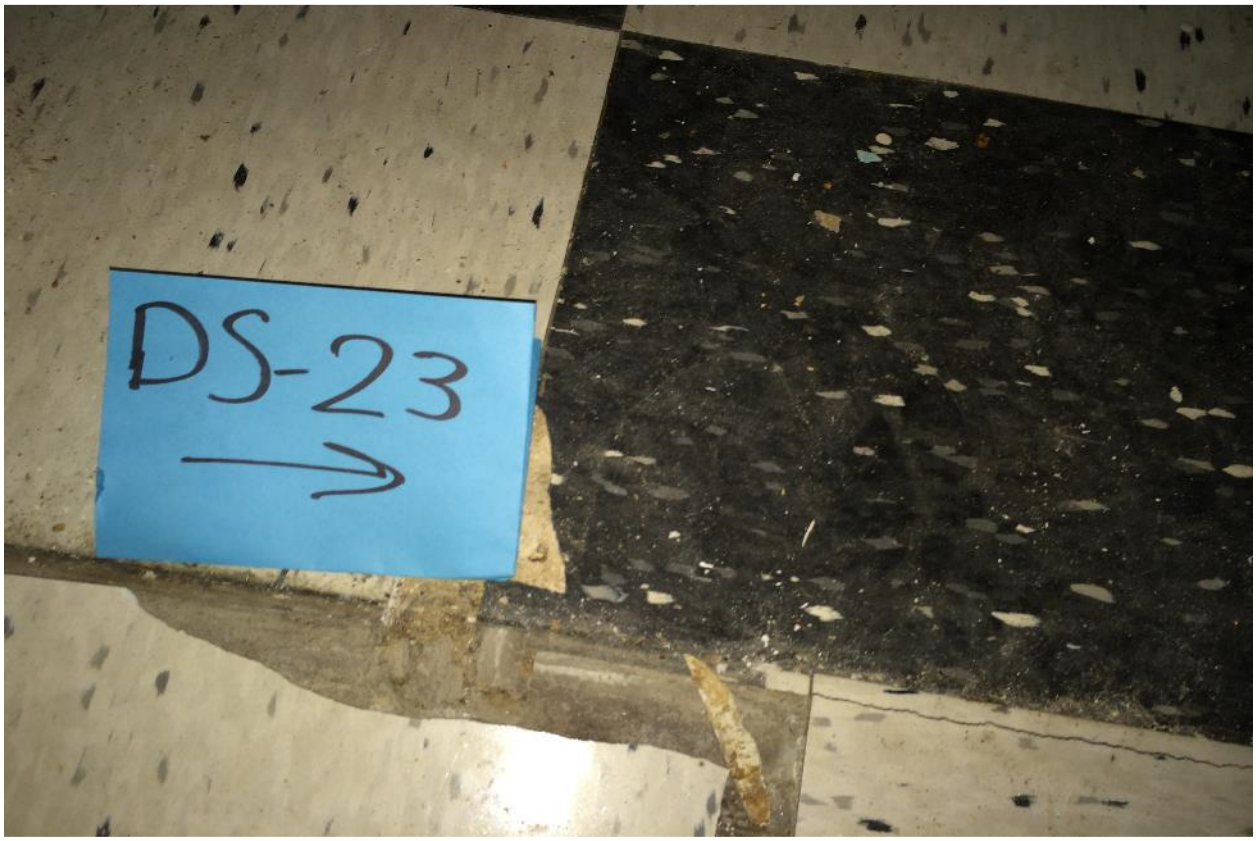


Plate 48: Laboratory analyses did not detect asbestos minerals within the black floor tile or mastic sample DS-23 collected from the Dormitory Building downstairs training room.

Plate 49: Laboratory analyses did not detect asbestos minerals within the black floor tile or mastic sample DS-24 collected from the Dormitory Building downstairs training room.

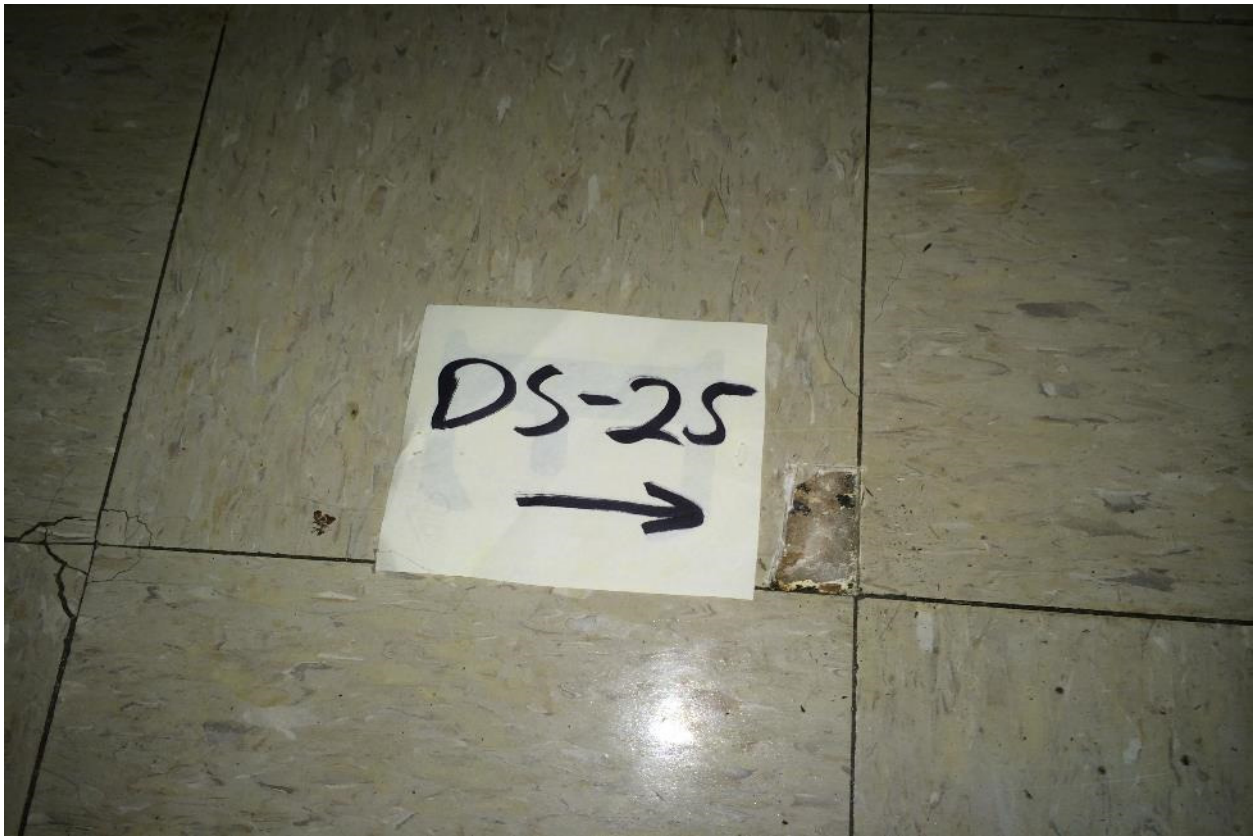


Plate 50: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample DS-25 collected from the Dormitory Building downstairs east miscellaneous rooms.

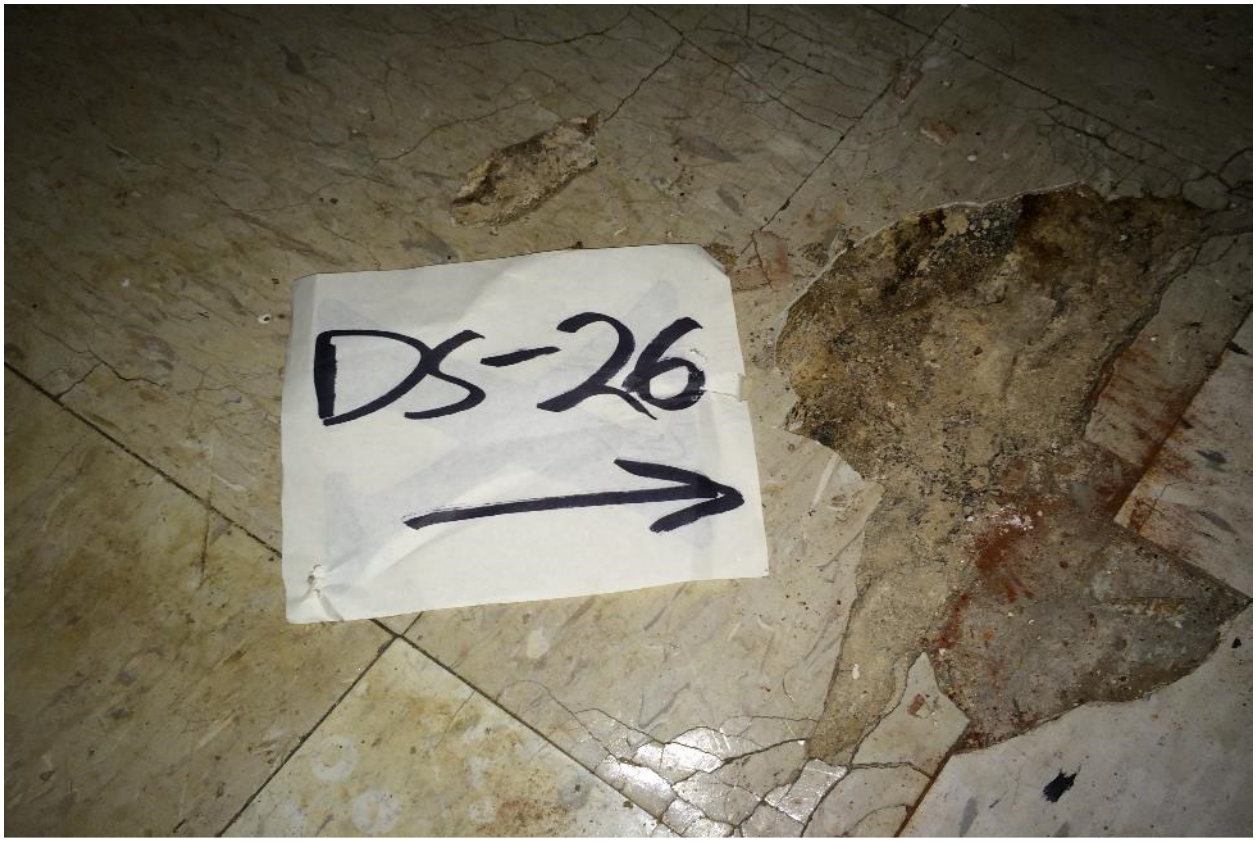


Plate 51: Laboratory analyses did not detect asbestos minerals within the black floor tile or mastic sample DS-26 collected from the Dormitory Building downstairs east miscellaneous rooms.

Plate 52: Laboratory analyses did not detect asbestos minerals within the black floor tile from sample TS-01 but did detect 5% chrysotile asbestos in the mastic from sample TS-01 collected from the Theatre Building lobby area.

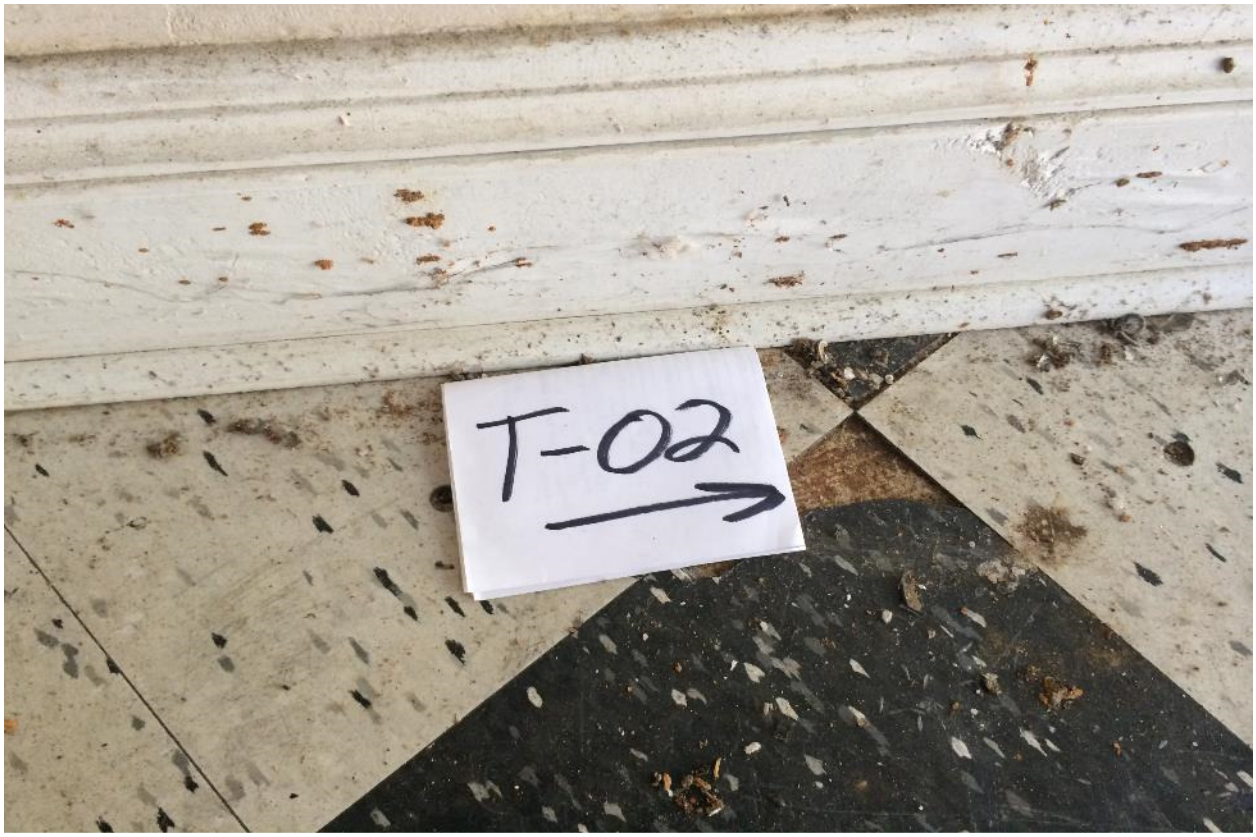


Plate 53: Laboratory analyses did not detect asbestos minerals within the black floor tile from sample TS-02 but did detect 5% chrysotile asbestos in the mastic from sample TS-02 collected from the Theatre Building lobby area.

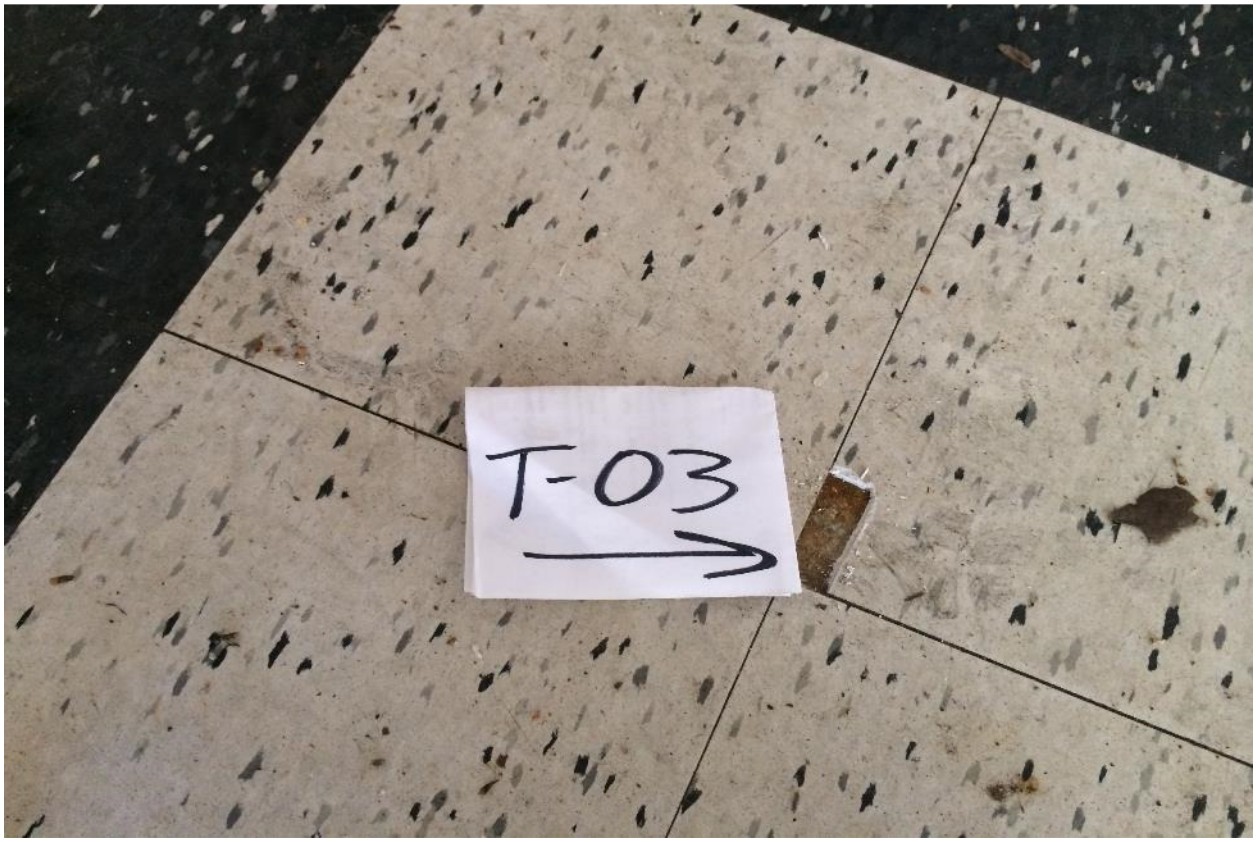


Plate 54: Laboratory analyses did not detect asbestos minerals within the white floor tile from sample TS-03 but did detect 5% chrysotile asbestos in the mastic from sample TS-03 collected from the Theatre Building lobby area.

Plate 55: Laboratory analyses did not detect asbestos minerals within the white floor tile from sample TS-04 but did detect 5% chrysotile asbestos in the mastic from sample TS-04 collected from the Theatre Building lobby area.

Plate 56: Laboratory analyses detected 2% chrysotile asbestos within suspended ceiling tile sample TS-05 collected from the Theatre Building lobby area.

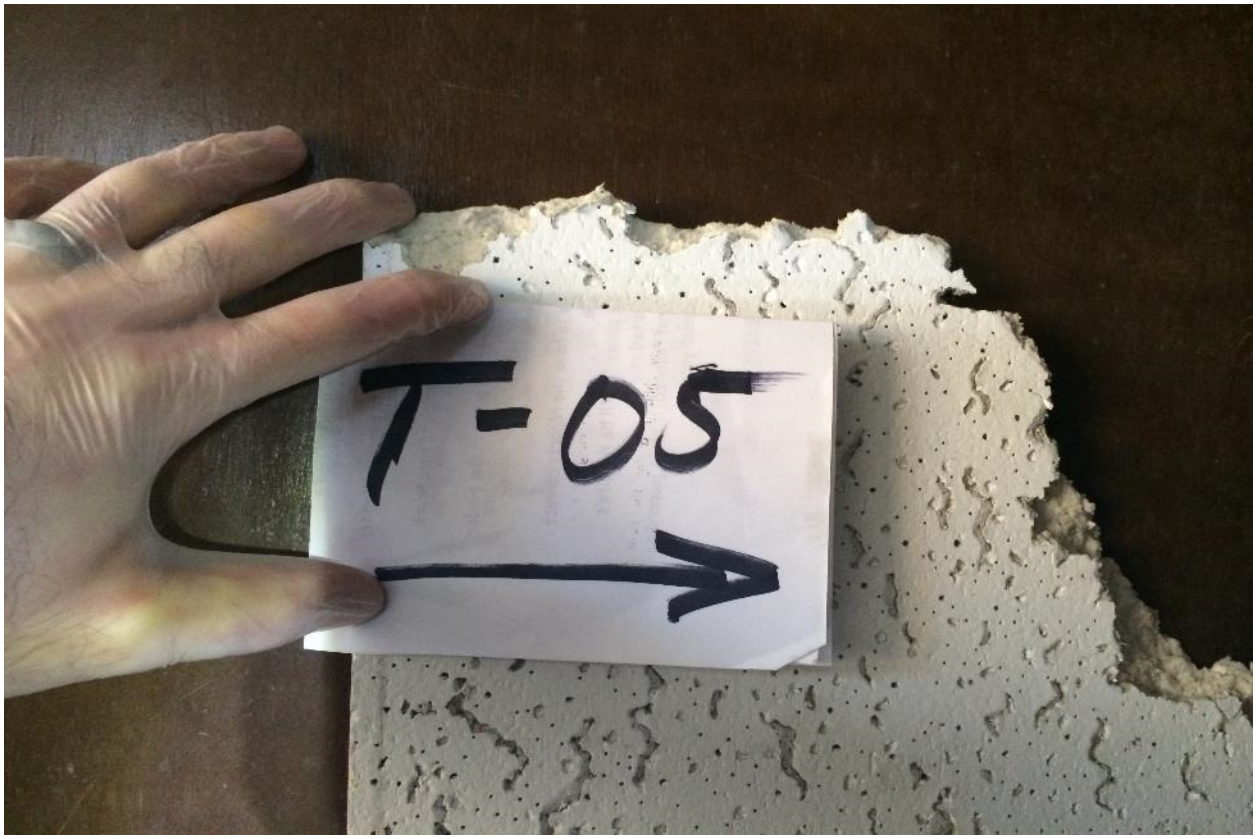


Plate 57: Laboratory analyses detected 2% chrysotile asbestos within suspended ceiling tile sample TS-06 collected from the Theatre Building hallway (sample should be labeled TS-06).

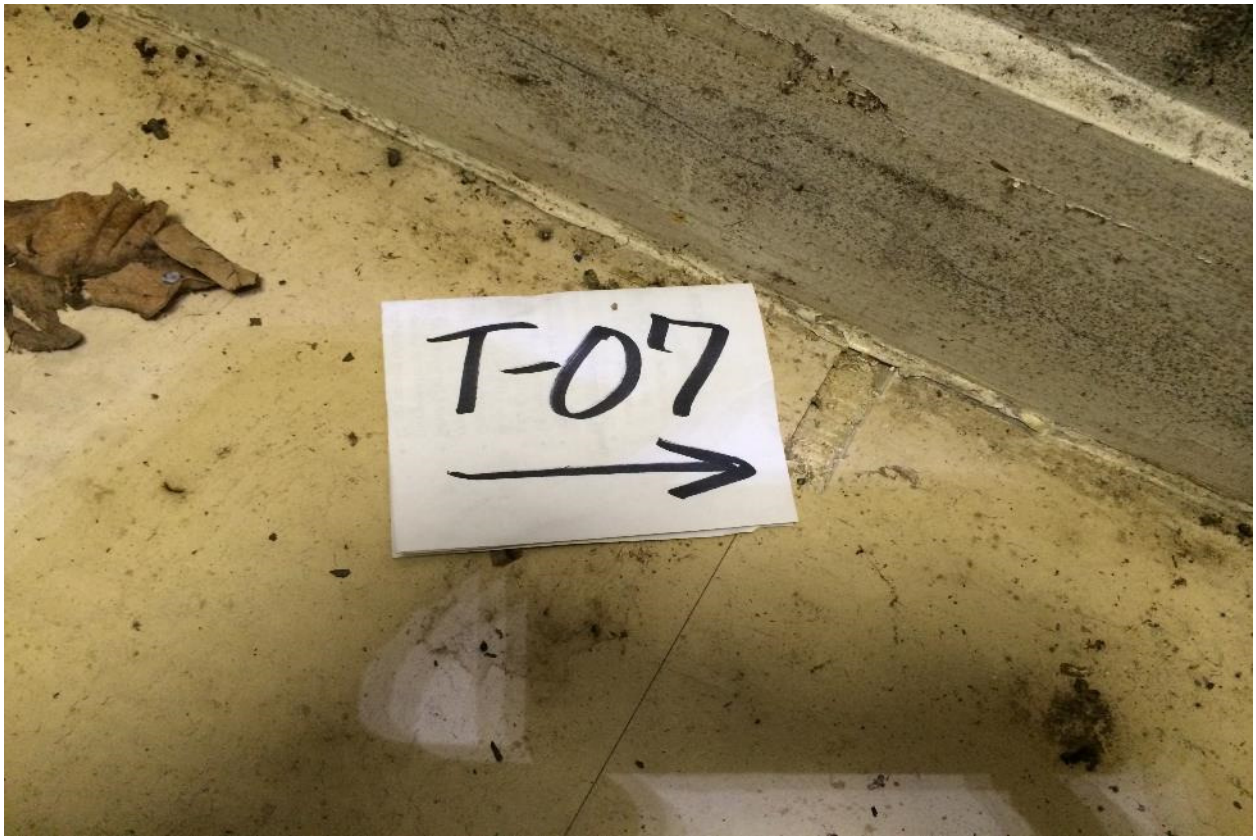


Plate 58: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample TS-07 collected from the Theatre Building hallway.

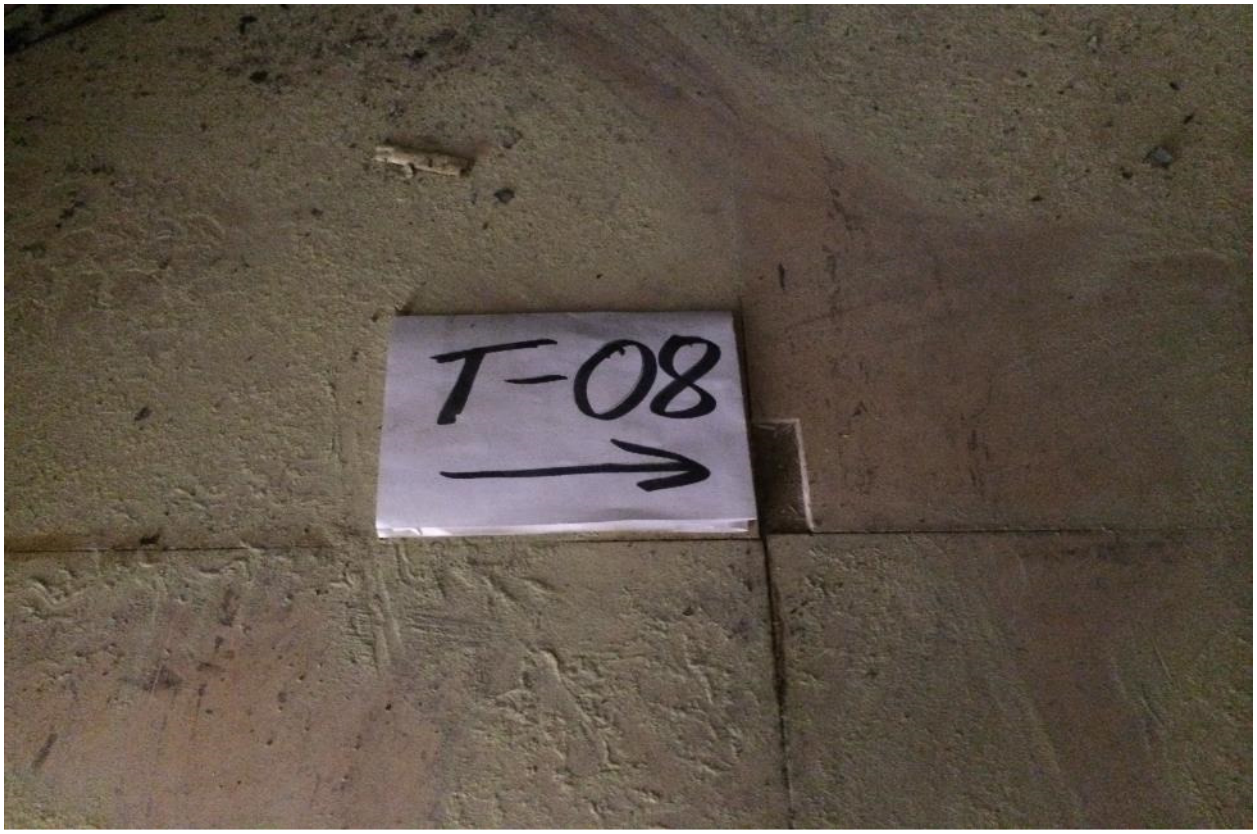


Plate 59: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample TS-08 collected from the Theatre Building lobby storage room.

Plate 60: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample TS-09 collected from the Theatre Building lobby ceiling.

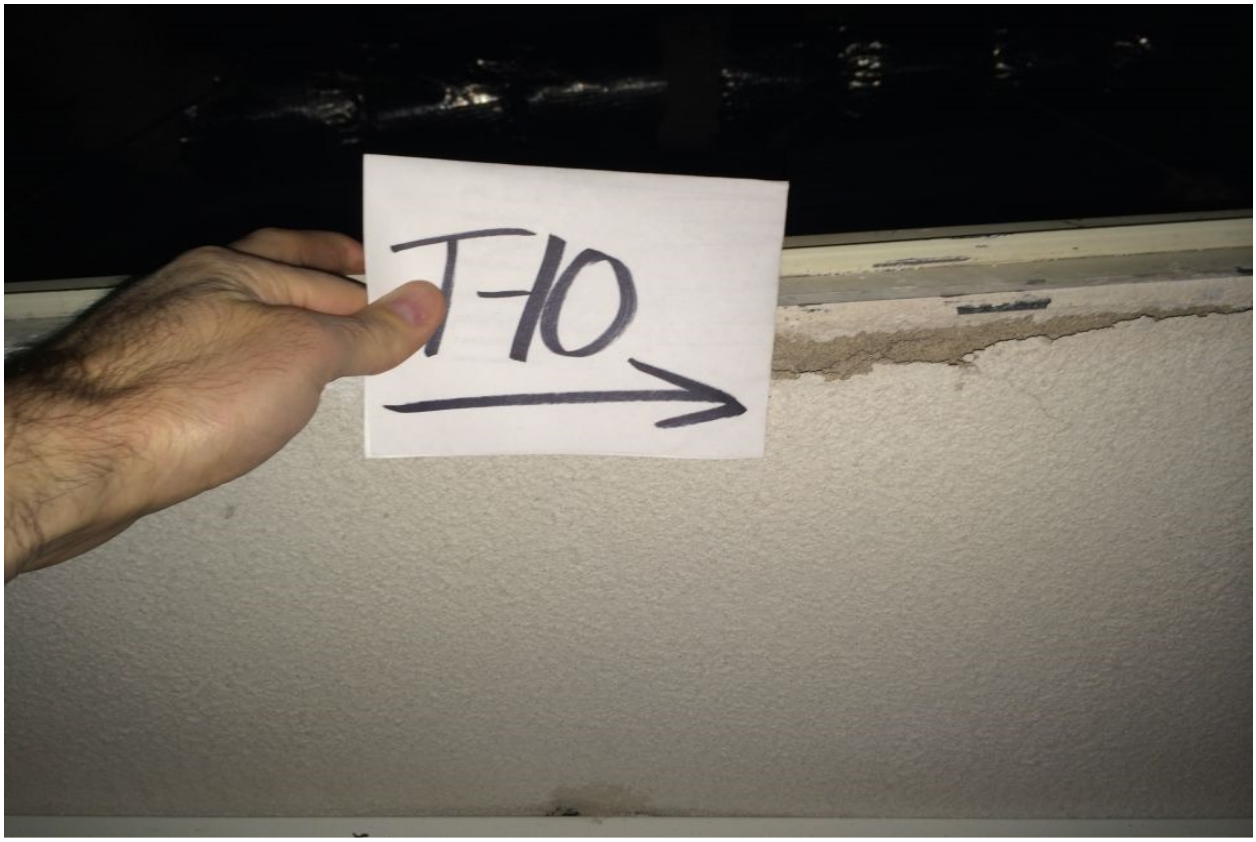


Plate 61: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-10 collected from the Theatre Building upstairs projection room ceiling.

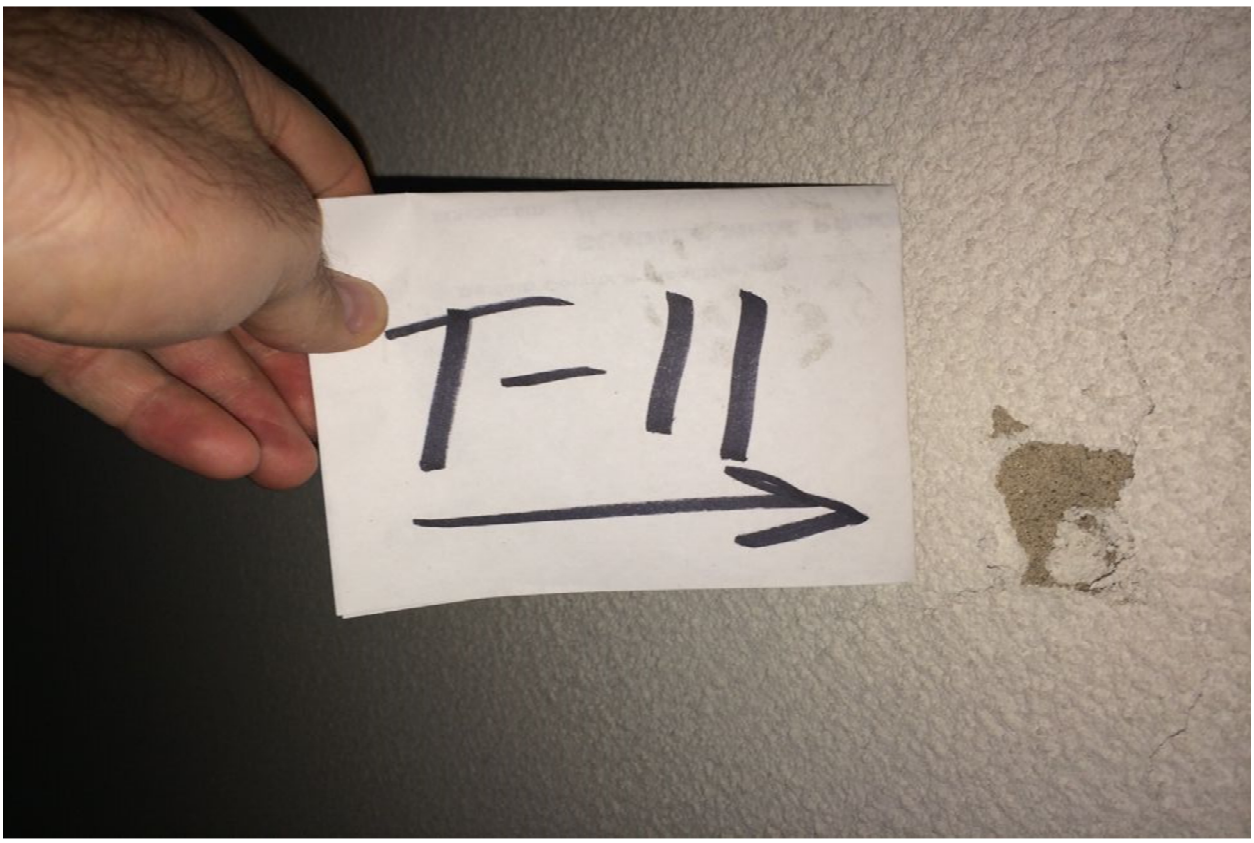


Plate 62: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-11 collected from the Theatre Building upstairs projection room ceiling.

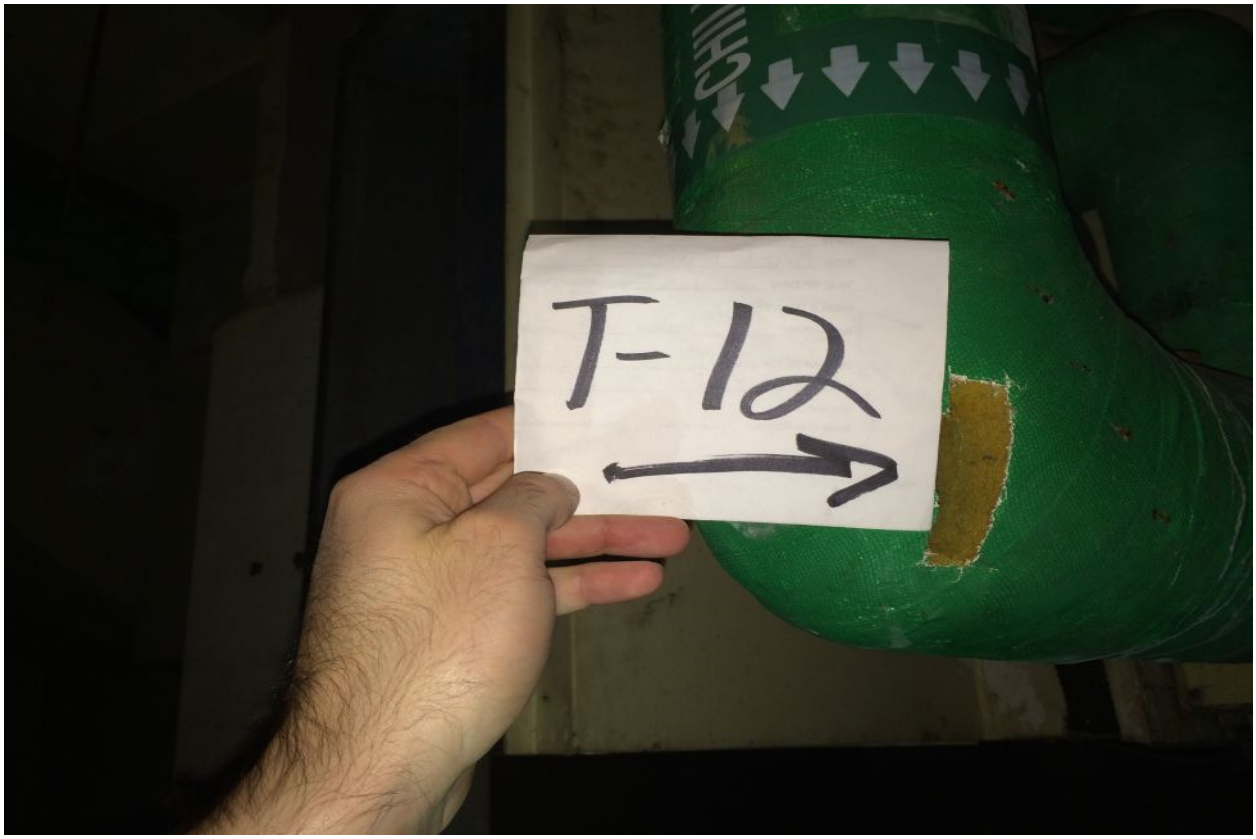


Plate 63: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample TS-12 collected from the Theatre Building basement boiler room.

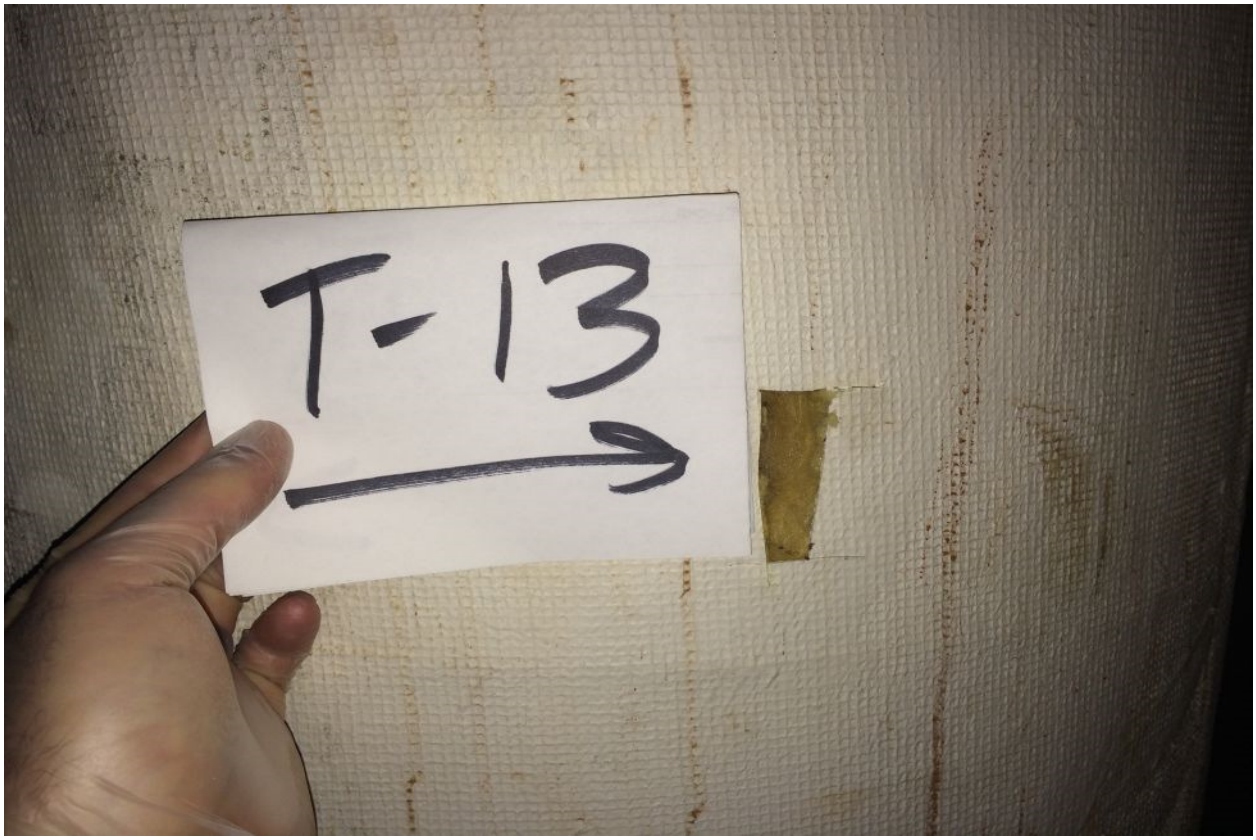


Plate 64: Laboratory analyses did not detect asbestos minerals within boiler wrap insulation sample TS-13 collected from the Theatre Building basement boiler room.

Plate 65: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-14 collected from the Theatre Building basement structural steel.

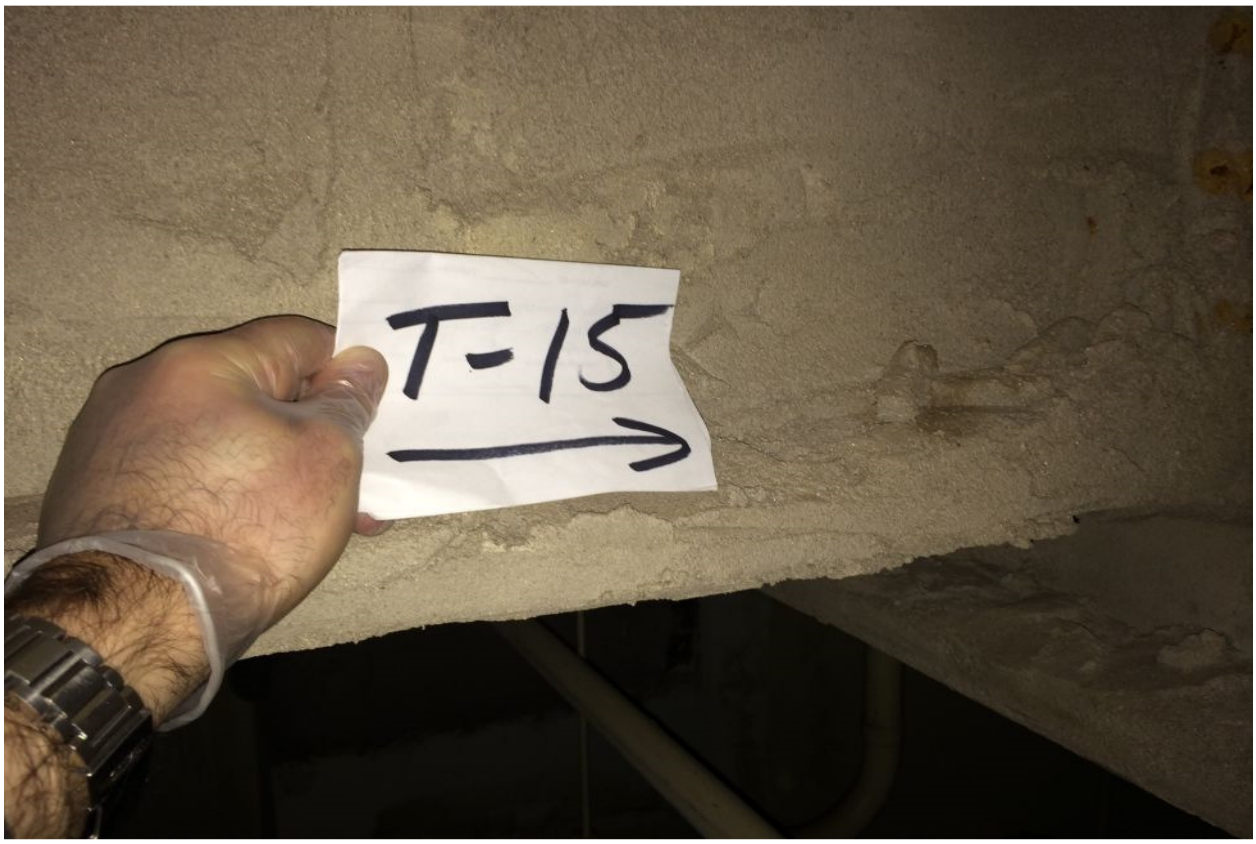


Plate 66: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-15 collected from the Theatre Building basement structural steel.

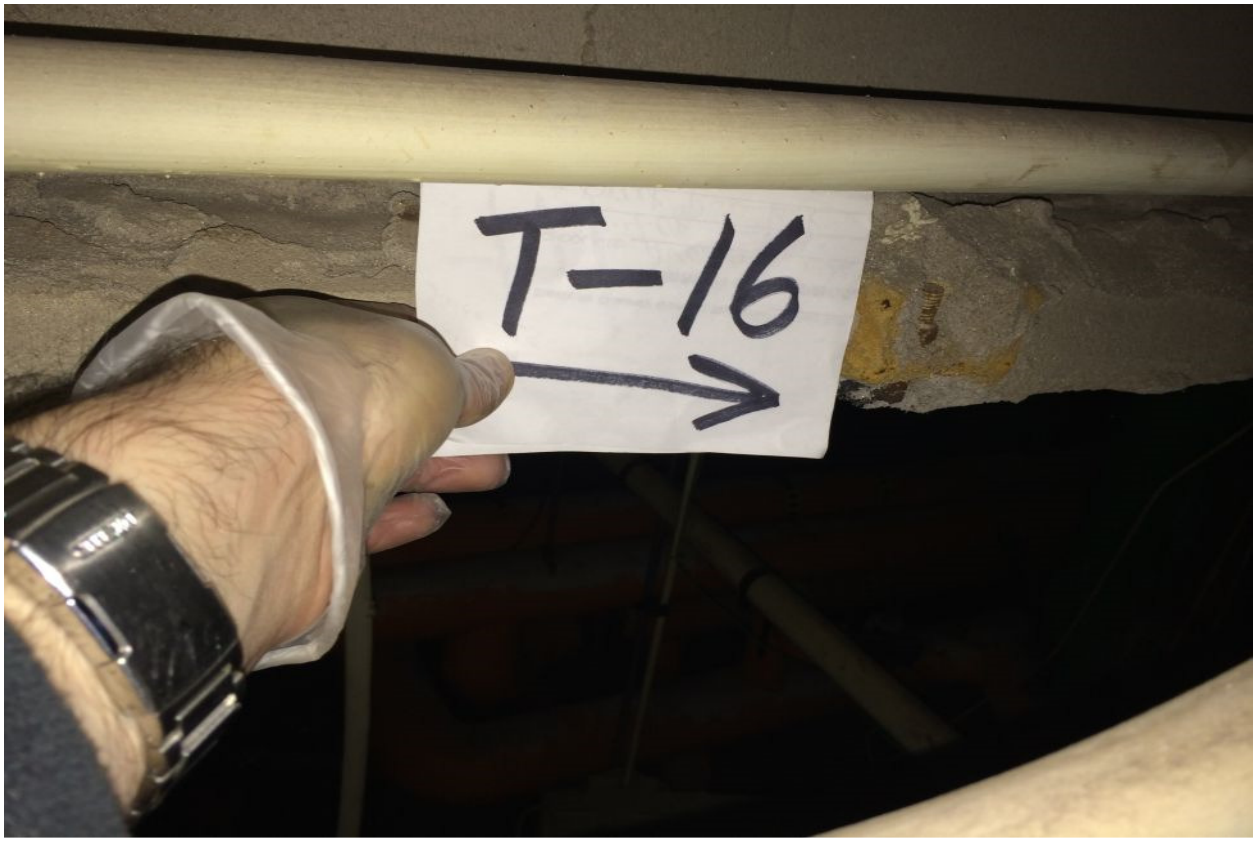


Plate 67: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-16 collected from the Theatre Building basement structural steel.

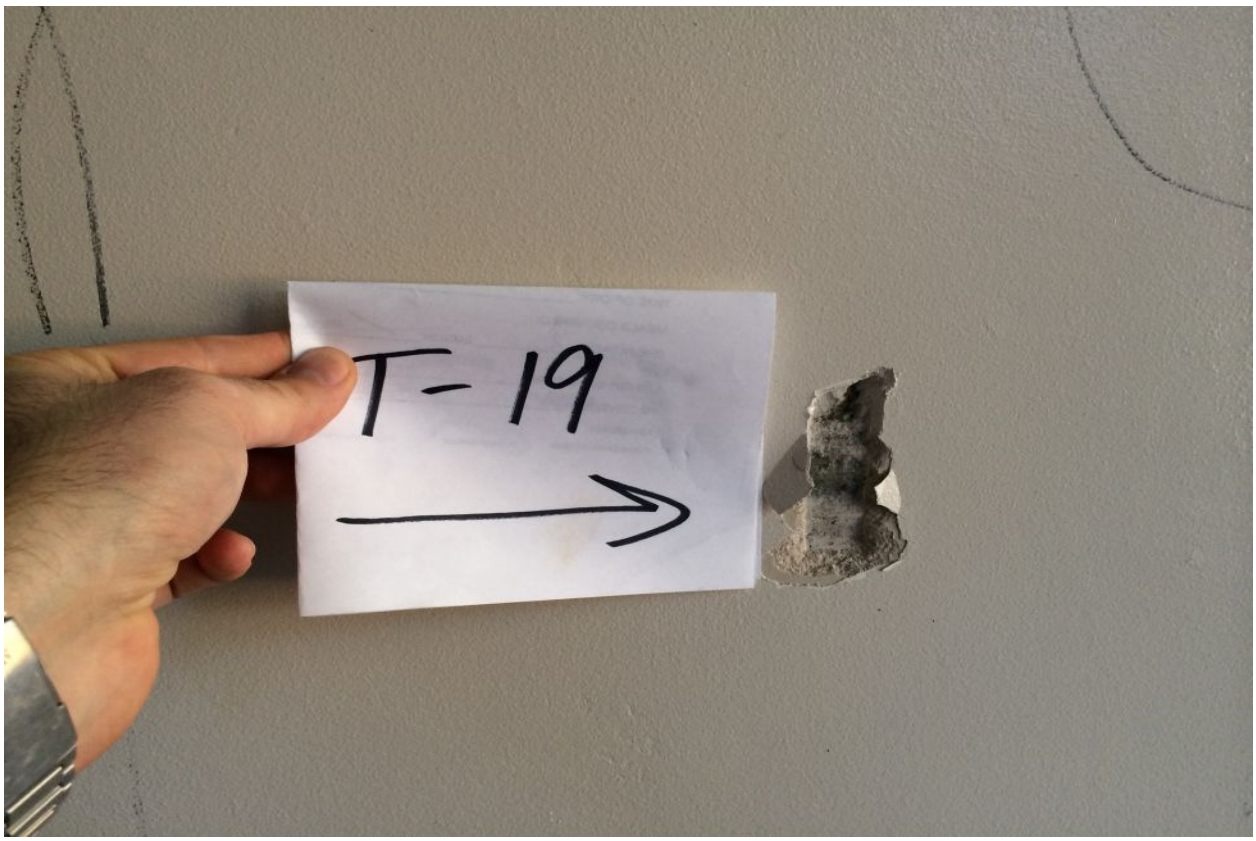


Plate 68: Laboratory analyses did not detect asbestos minerals within troweled on surfacing material sample TS-19 collected from the Theatre Building basement hall wall.

Plate 69: Laboratory analyses did not detect asbestos minerals within troweled on surfacing material sample TS-20 collected from the Theatre Building lobby wall.

Plate 70: Laboratory analyses did not detect asbestos minerals within asphalt roof sample TS-21 collected from the Theatre Building roof.

Plate 71: Laboratory analyses did not detect asbestos minerals within asphalt roof sample TS-22 collected from the Theatre Building roof.

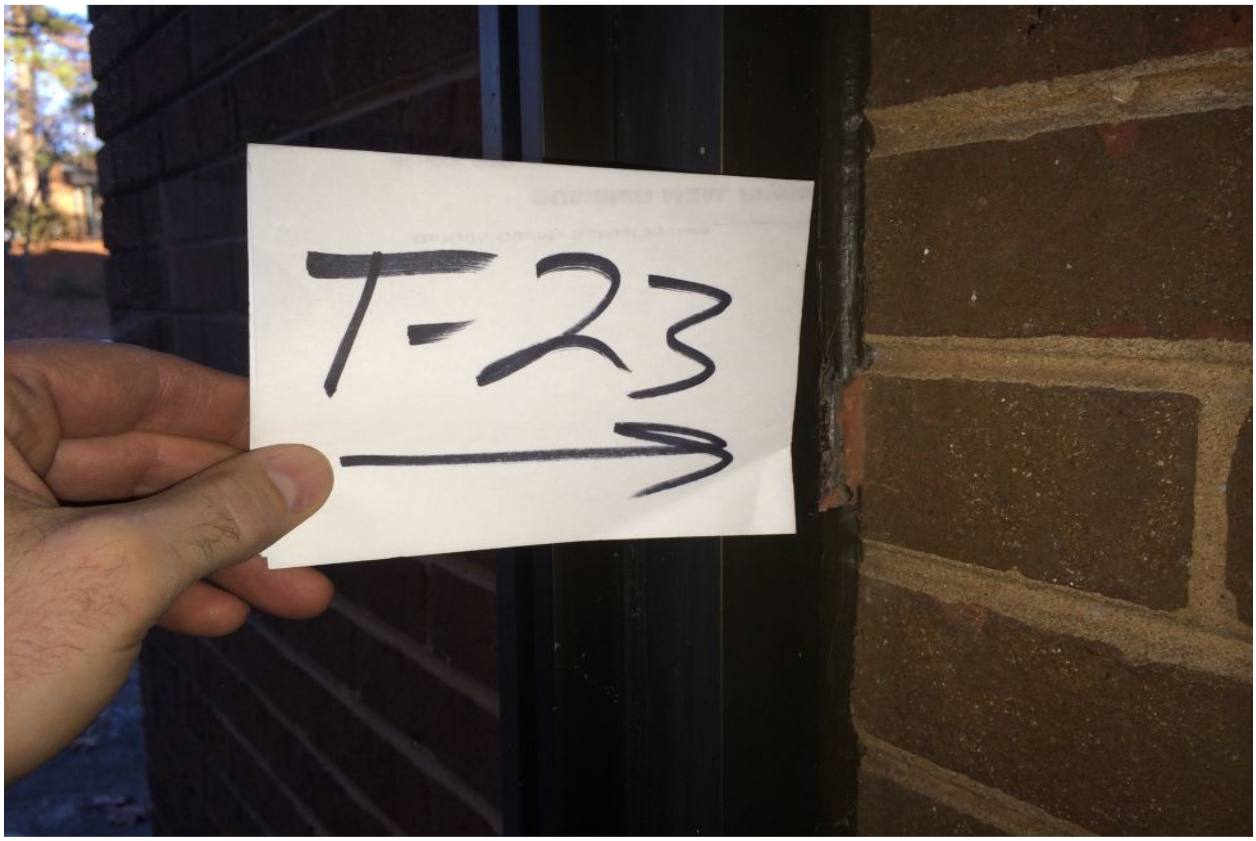


Plate 72: Laboratory analyses did not detect asbestos minerals within the window caulk sample TS-23 collected from the Theatre Building windows.

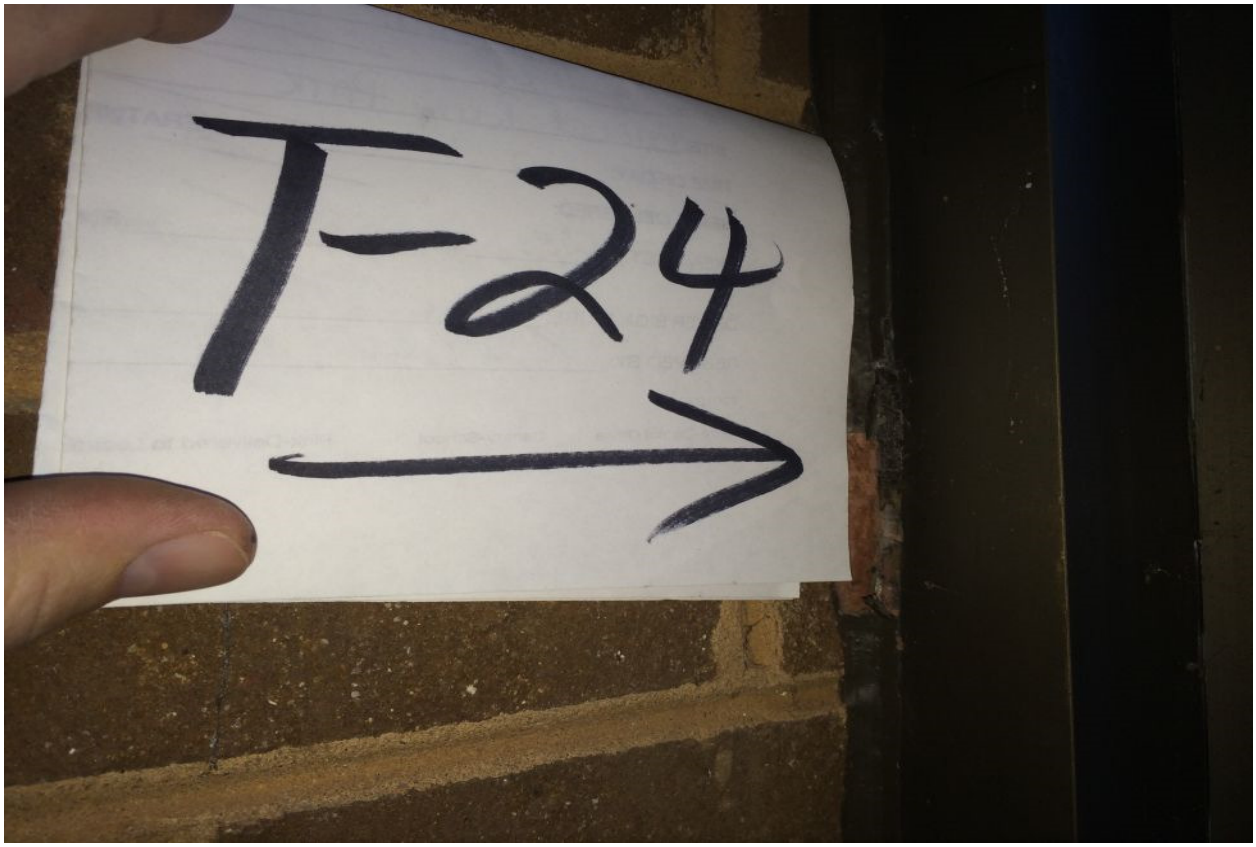
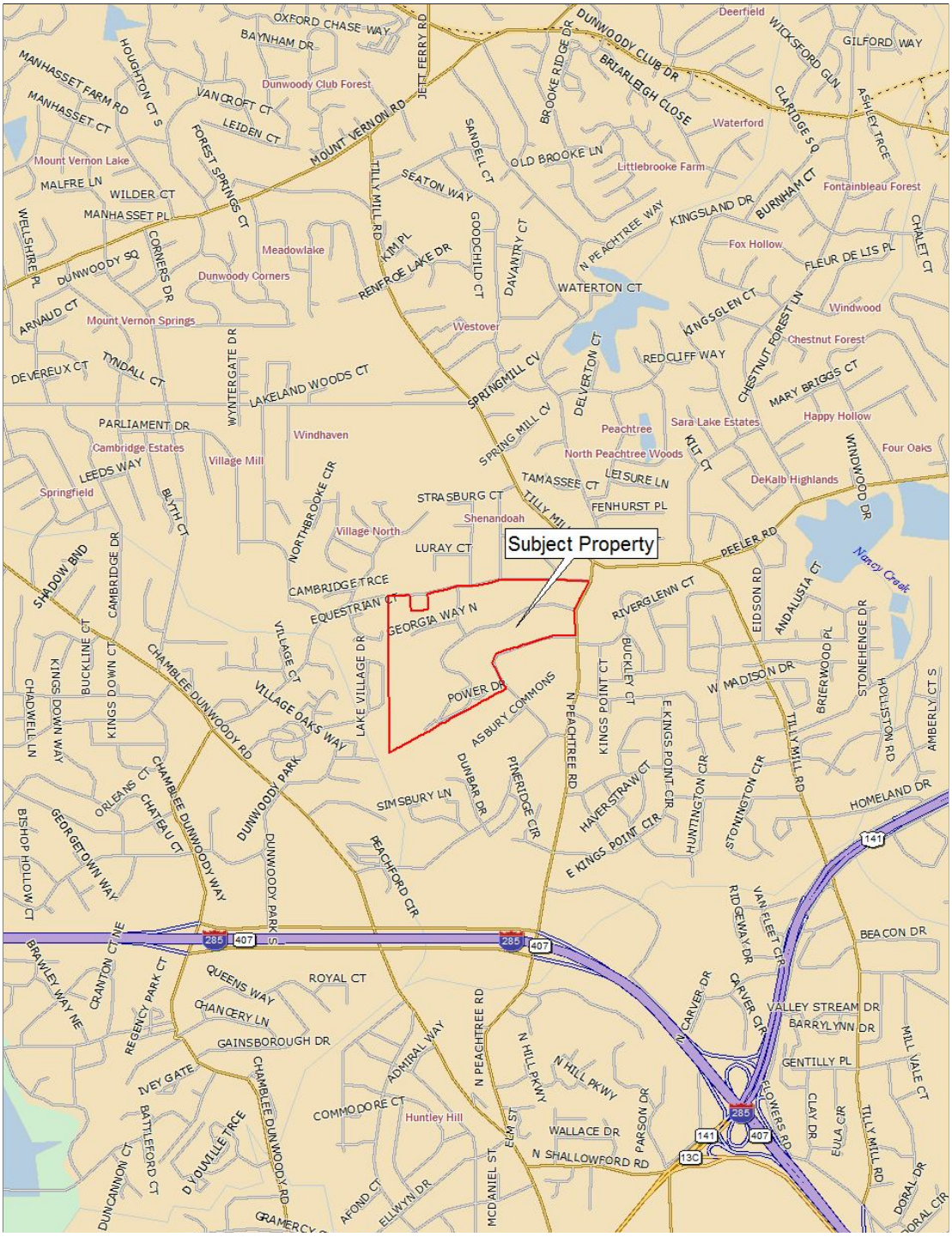


Plate 73: Laboratory analyses did not detect asbestos minerals within the window caulk sample TS-24 collected from the Theatre Building windows.



0 0.25 0.5 1 1.5

Approximate Scale, Miles

Figure 1: Site Location Plan

Brook Run ASB
Dunwoody, Georgia
Geo-Hydro Project Number 130572.00

ASBESTOS INSPECTOR CERTIFICATION

GEO HYDRO ENGINEERS

The Environmental Institute

Jarrett Baggett

Social Security Number - XXX-XX-4730

Geo-Hydro Engineers, Inc. - 1000 Cobb Place Blvd., Suite 290 - Kennesaw, Georgia 30144

Has completed coursework and satisfactorily passed

an examination that meets all criteria required for

EPA/AHERA/ASHARA (TSCA Title II) Approved Accreditation

Asbestos in Buildings: Inspection and Assessment

October 14-16, 2013
Course Date

4568
Certificate Number

October 16, 2013
Examination Date

October 15, 2014
Expiration Date

David W. Hogue - Principal Instructor / Training Manager

Rachel G. McCain - Exam Administrator

(Approved by the ABIH Certification Maintenance Committee for 3 CM points - Approval #11-529)
(Florida Provider Registration Number FL49-0001342 - Course #FL49-0004700)
TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com

ASBESTOS ANALYSIS SUMMARY TABLES

GEO HYDRO ENGINEERS

Report of Asbestos Survey
Brook Run Park
Dunwoody, DeKalb County, Georgia
Geo-Hydro Project Number 130572.00

Asbestos Analysis Summary Table
Administrative Buildings

Suspect ACM	Sample Number	Area Observed	Photograph Number	ACM (Yes/No)
Mechanical Room Fire Door	BRN-13	Entrance to Mechanical Room in Southern Portion of North Administrative Building	13	Yes
White (12-inch square) Suspended Ceiling Tile	BRS-05 & BRS-06	Throughout Classrooms of North and South Administrative Buildings (1-Foot by 1-Foot) Ceiling Tile (Approximately 6,400 Square Feet)	5 & 6	Yes
White (24-inch square) Suspended Ceiling Tile	BRS-01 & BRS-02	Western Portion of South Administrative Building	1 & 2	No
Beige (36-inch square) Floor Tile and Mastic	BRS-03 & BRS-04	Throughout North and South Administrative Buildings	3 & 4	No
Brown Window Caulk	BRS-07 & BRS-08	Along Windows Throughout North and South Administrative Buildings	7 & 8	No
Pipe Elbow Wrap (TSI)	BRS-09	Mechanical Rooms and Ceiling Areas	9	No
HVAC Gasket and HVAC Insulation	BRN-10 & BRN-11	Mechanical Rooms	10 & 11	No
Plumbing Insulation (TSI)	BRN-12	Mechanical Rooms and Ceiling Areas	12	No
Gray (12-inch square) Floor Tile and Mastic	BRN-14 & BRN-15	Throughout North Administrative Building	14 & 15	No
HVAC Gasket	BRN-16	Mechanical Rooms	16	No
Boiler Wrap and Mastic (TSI)	BRN-17 & BRN-18	Mechanical Rooms	17 & 18	No
Plumbing Insulation (TSI)	BRN-19	Mechanical Rooms	19	No
Black and Brown Asphalt Roof	BRN-20 & BRN-21	North Administrative Building Roof	20 & 21	No
Plumbing Insulation (TSI)	BRN-22	Exterior Mechanical Room North Administrative Building Roof	22	No
Black and Brown Asphalt Roof	BRN-23 & BRN-24	South Administrative Building Roof	23 & 24	No
Plumbing Insulation (TSI)	BRN-25	Exterior Mechanical Room South Administrative Building Roof	25	No

Report of Asbestos Survey
Brook Run Park
Dunwoody, DeKalb County, Georgia
Geo-Hydro Project Number 130572.00

Asbestos Analysis Summary Table
Dormitory Building

Suspect ACM	Sample Number	Area Observed	Photograph Number	ACM (Yes/No)
Central Room Fire Doors	DS-13 & DS-14	Internal Doors Connecting the Upstairs Central Room to the Dorm Rooms	38 & 39	Yes
White (12-inch square) Suspended Ceiling Tile	DS-09	Upstairs Computer Room (Approximately 216 Square Feet)	34	Yes
Beige (36-inch square) Floor Tile and Mastic	DS-07	Mastic Underneath Beige (36-inch square) Floor Tile in Upstairs Central Room (Approximately 2,500 Square Feet)	32	Yes
White (24-inch square) Suspended Ceiling Tile	DS-01 & DS-02	Upstairs Hallways, Upstairs Central Room, Kitchen, and Miscellaneous Rooms Downstairs	26 & 27	No
Blue (12-inch square) Floor Tile and Mastic	DS-03 & DS-04	Upstairs Central Room	28 & 29	No
Brown (12-inch square) Floor Tile and Mastic	DS-05 & DS-06	Upstairs Computer Room	30 & 31	No
Beige (36-inch square) Floor Tile and Mastic	DS-08	Upstairs Hallways, Dorm Rooms, and Stairwells	33	No
White (12-inch square) Suspended Ceiling Tile	DS-10	Dorm Rooms	35	No
Brown Window Caulk	DS-11 & DS-12	Along Windows Throughout Building	36 & 37	No
Tan & White (12-inch square) Floor Tile and Mastic	DS-15 & DS-16	Downstairs Hallways	40 & 41	No
Plumbing Insulation (TSI)	DS-17 & DS-18	Throughout Downstairs Ceiling	42 & 43	No
White (24-inch square) Suspended Ceiling Tile	DS-19 & DS-20	Downstairs Hallways	44 & 45	No
Black and White (12-inch square) Floor Tile and Mastic	DS-21 & DS-22	Downstairs Training Room	46 & 47	No
Black (12-inch square) Floor Tile and Mastic	DS-23 & DS-24	Downstairs Training Room	48 & 49	No
Beige (12-inch square) Floor Tile and Mastic	DS-25 & DS-26	Miscellaneous Downstairs Rooms	50 & 51	No

Report of Asbestos Survey
Brook Run Park
Dunwoody, DeKalb County, Georgia
Geo-Hydro Project Number 130572.00

Asbestos Analysis Summary Table
Theatre Building

Suspect ACM	Sample Number	Area Observed	Photograph Number	ACM (Yes/No)
Black (12-inch square) and White (12-inch square) Floor Tile and Mastic	TS-01, TS-02, TS-03, & TS-04	Front Lobby Area (Approximately 1,300 Square Feet)	52, 53, 54, & 55	Yes
White (24-inch square) Suspended Ceiling Tile	TS-05 & TS-06	Throughout the Main Floor (Approximately 5,000 Square Feet)	56 & 57	Yes
Spray on Surfacing Material	TS-10, TS-11, TS-14, TS-15, TS-16, TS-17, & TS-18	All Structural Steel in Basement Ceiling and Ceiling in Upstairs Projection Room (Approximately 650 Square Feet of Ceiling Area in Projection Room)	61, 62, 65, 66, & 67	Yes
Beige (36-inch square) Floor Tile and Mastic	TS-07 & TS-08	Hallways and Lobby Storage Rooms	58 & 59	No
Plumbing Insulation (TSI)	TS-09 & TS-12	Main Floor Ceilings and Basement Boiler Room	60 & 63	No
Boiler Wrap (TSI)	TS-13	Basement Boiler Room	64	No
White Troweled on Surface Material	TS-19 & TS-20	Basement Hall and Lobby Area Walls	68 & 69	No
Black and Brown Asphalt Roof	TS-21 & TS-22	Theatre Building Roof	70 & 71	No
Brown Window Caulk	TS-23 & TS-24	Along Windows Throughout Building	72 & 73	No

ANALYTICAL LABORATORY REPORTS
SUSPECT ASBESTOS SAMPLES

GEO HYDRO ENGINEERS

EMSL Analytical, Inc
2205 Corporate Plaza Parkway SE, Suite 200, Smyrna, GA 30080
Phone/Fax: (770) 956-9150 / (770) 956-9181
http://www.EMSL.com atlantalab@emsl.com

EMSL Order:	071306881
CustomerID:	GEOH50
CustomerPO:	
ProjectID:	

Attn: **Jarrett Baggett**
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Ste. 290
Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/04/13 1:05 PM
Analysis Date:	12/9/2013
Collected:	11/1/2013

Project: **Brook Run Park/ 130572**

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

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
BRS-01 *071306881-0001*	2'x2' White Ceiling Tile	Various Non-Fibrous Homogeneous	40% Cellulose 10% Min. Wool		50% Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis			
BRS-02 *071306881-0002*	2'x2' White Ceiling Tile	Various Fibrous Homogeneous	40% Cellulose 10% Min. Wool		50% Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis			
BRS-03-Floor Tile *071306881-0003*	3'x3' Floor Tile, Beige	Gray Non-Fibrous Homogeneous	<1% Cellulose		100% Non-fibrous (other)	**None Detected**
BRS-03-Mastic *071306881-0003A*	3'x3' Floor Tile, Beige	Various Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
BRS-04-Floor Tile *071306881-0004*	3'x3' Floor Tile, Beige	Gray Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
BRS-04-Mastic *071306881-0004A*	3'x3' Floor Tile, Beige	Various Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
BRS-05 *071306881-0005*	1'x1' Ceiling Tile, White	Various Fibrous Homogeneous	4% Min. Wool		92% Non-fibrous (other)	**2% Chrysotile** **2% Amosite**
			Inseparable paint / coating layer included in analysis			
BRS-06 *071306881-0006*	1'x1' Ceiling Tile, White	Various Fibrous Homogeneous	4% Min. Wool		92% Non-fibrous (other)	**2% Amosite** **2% Chrysotile**
			Inseparable paint / coating layer included in analysis			

Analyst(s)

Anthony Sanaie (19)
Lauren Kerber (13)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/09/2013 12:15:18

EMSL Analytical, Inc
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Project: **Brook Run Park/ 130572**

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

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
BRS-07 *071306881-0007*	Window Caulk, Brown	Brown Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)		**None Detected**
BRS-08 *071306881-0008*	Window Caulk, Brown	Brown Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)		**None Detected**
BRS-09-Wrap *071306881-0009*	Pipe Elbow Wrap	Gray Fibrous Homogeneous	5% <1%	Glass Cellulose	95%	Non-fibrous (other)		**None Detected**
BRS-09-Insulation *071306881-0009A*	Pipe Elbow Wrap	Yellow Non-Fibrous Homogeneous	80%	Glass	20%	Non-fibrous (other)		**None Detected**
BRN-10 *071306881-0010*	HVAC Gasket, Black	Black Fibrous Homogeneous	15%	Glass	85%	Non-fibrous (other)		**None Detected**
BRN-11 *071306881-0011*	HVAC Insulation	Various Fibrous Homogeneous	70%	Glass	30%	Non-fibrous (other)		**None Detected**
BRN-12 *071306881-0012*	TSI Pipe Insulation	Black Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
BRN-13 *071306881-0013*	Mechanical Room Fire Door	White Fibrous Homogeneous			50%	Non-fibrous (other)	**30%** **20%**	**Chrysotile** **Amosite**

Analyst(s)

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

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
BRN-14-Floor Tile *071306881-0014*	1'x1' Gray Floor Tile	Gray Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
BRN-14-Mastic *071306881-0014A*	1'x1' Gray Floor Tile	Tan Non-Fibrous Homogeneous	<1%	Cellulose	100%	Non-fibrous (other)	**None Detected**
BRN-15-Floor Tile *071306881-0015*	1'x1' Gray Floor Tile	Gray Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
BRN-15-Mastic *071306881-0015A*	1'x1' Gray Floor Tile	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
BRN-16 *071306881-0016*	HVAC Gasket, Black	Black Fibrous Homogeneous	15%	Glass	85%	Non-fibrous (other)	**None Detected**
BRN-17-Wrap *071306881-0017*	Boiler Wrap TSI	Various Fibrous Homogeneous	60% 10%	Cellulose Glass	30%	Non-fibrous (other)	**None Detected**
			Result includes a small amount of inseparable attached material				
BRN-17-Mastic *071306881-0017A*	Boiler Wrap TSI	White Non-Fibrous Homogeneous	4% 2%	Cellulose Wollastonite	94%	Non-fibrous (other)	**None Detected**
BRN-18-Wrap *071306881-0018*	Boiler Wrap TSI	Various Fibrous Homogeneous	60% 10%	Cellulose Glass	30%	Non-fibrous (other)	**None Detected**

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Project: **Brook Run Park/ 130572**

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

			Non-Asbestos			Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**% Type**
BRN-18-Mastic *071306881-0018A*	Boiler Wrap TSI	White Non-Fibrous Homogeneous	4% 2%	Cellulose Wollastonite	94% Non-fibrous (other)	**None Detected**
BRN-19 *071306881-0019*	Pipe Insulation TSI	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)	**None Detected**
BRN-20 *071306881-0020*	Roof Sample, Asphalt, Black + Brown	Black Fibrous Homogeneous	30% <1%	Cellulose Glass	70% Non-fibrous (other)	**None Detected**
BRN-21 *071306881-0021*	Asphalt Roof Sample, Black + Brown	Black Fibrous Homogeneous	30% <1%	Cellulose Glass	70% Non-fibrous (other)	**None Detected**
BRN-22 *071306881-0022*	Pipe Insulation TSI	Yellow Non-Fibrous Homogeneous	80%	Glass	20% Non-fibrous (other)	**None Detected**
BRS-23 *071306881-0023*	Asphalt Roof Sample, Black + Brown	Black Fibrous Homogeneous	3% 15%	Cellulose Glass	82% Non-fibrous (other)	**None Detected**
BRS-24 *071306881-0024*	Asphalt Roof Sample, Black + Brown	Black Non-Fibrous Homogeneous	3% 15%	Cellulose Glass	82% Non-fibrous (other)	**None Detected**
BRS-25 *071306881-0025*	Pipe Insulation TSI	Yellow Fibrous Homogeneous	80%	Glass	20% Non-fibrous (other)	**None Detected**

Analyst(s)

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Lauren Kerber (13)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/09/2013 12:15:18

071306881

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 071306881

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
1800 WATER PLACE STE. 228
ATLANTA, GA 30339
PHONE: (770) 956-9150
FAX: (770) 956-9181

Company: Geo-Hydro Engineers	EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 1000 Cobb Place Blvd, NW, Suite 290	*Third Party Billing requires written authorization from third party*
City: Kennesaw, State/Province: GA	Zip/Postal Code: 30144 Country: US
Report To (Name): Jarrett Daggett	Telephone #: 770-426-7100
Email Address: jbaggett@geohydro.com	Fax #: 770-426-5209 Purchase Order:
Project Name/Number: Brook Run Park / 130572	Please Provide Results: ☐ Fax ☑ Email
U.S. State Samples Taken: GA	Connecticut Samples: ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☑ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☐ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ 4-4.5hr TAT (AHERA only)
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** | **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Jarrett Daggett **Samplers Signature:** [signature]

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
BRS-01	2'x2' white ceiling tile	Bulk	11-1-13 / 1235
BRS-02	2'x2' white ceiling tile	Bulk	11-1-13 / 1235
BRS-03	3'x3' Floor Tile, beige	Bulk	11-1-13 / 1245
BRS-04	3'x3' Floor Tile, beige	Bulk	11-1-13 / 1250
BRS-05	1'x1' Ceiling Tile, white	Bulk	11-1-13 / 1251
BRS-06	1'x1' Ceiling Tile, white	Bulk	11-1-13 / 1251
BRS-07	Window caulk, brown	Bulk	11-1-13 / 1254
BRS-08	Window caulk, brown	Bulk	11-1-13 / 1255

Client Sample # (s): **Total # of Samples:** 25

Relinquished (Client): [signature] **Date:** 12-4-13 **Time:** 1305

Received (Lab): [signature] **Date:** 12/4/13 **Time:** 1:05 pm

Comments/Special Instructions:

071306881

EMSL ANALYTICAL, INC.
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Asbestos Chain of Custody

EMSL Order Number *(Lab Use Only)*:

EMSL ANALYTICAL, INC.
1800 WATER PLACE STE.228
ATLANTA, GA 30339
PHONE: (770) 956-915
FAX: (770) 956-918

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
BRS-09	Pipe Elbow Wrap	Bulk	11-1-13/1300
BRN-10	HVAC Gasket, Black	Bulk	11-1-13/1310
BRN-11	HVAC Insulation	Bulk	11-1-13/1311
BRN-12	TSI Pipe Insulation	Bulk	11-1-13/1314
BRN-13	Mechanical Room Fire Door	Bulk	11-1-13/1316
BRN-14	1'x1' Grey Floor Tile	Bulk	11-1-13/1320
BRN-15	1'x1' Grey Floor Tile	Bulk	11-1-13/1322
BRN-16	HVAC Gasket, Black	Bulk	11-1-13/1328
BRN-17	Boiler Wrap TSI	Bulk	11-1-13/1330
BRN-18	Boiler Wrap TSI	Bulk	11-1-13/1332
BRN-19	Pipe Insulation TSI	Bulk	11-1-13/1335
BRN-20	Roof Sample, Asphalt, Black + Brown	Bulk	11-27-13/1100
BRN-21	Asphalt Roof Sample, Black + Brown	Bulk	11-27-13/1105
BRN-22	Pipe Insulation TSI	Bulk	11-27-13/1115
BRS-23	Asphalt Roof Sample, Black + Brown	Bulk	11-27-13/1155
BRS-24	Asphalt Roof Sample, Black + Brown	Bulk	11-27-13/1200
BRS-25	Pipe Insulation TSI	Bulk	11-27-13/1215

***Comments/Special Instructions:**

EMSL Analytical, Inc
2205 Corporate Plaza Parkway SE, Suite 200, Smyrna, GA 30080
Phone/Fax: (770) 956-9150 / (770) 956-9181
http://www.EMSL.com atlantalab@emsl.com

EMSL Order:	071306931
CustomerID:	GEOH50
CustomerPO:	130569.00
ProjectID:	

Attn: **Jarrett Baggett**
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Ste. 290
Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/09/13 9:11 AM
Analysis Date:	12/12/2013
Collected:	12/5/2013

Project: **Brook Run Park**

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

			Non-Asbestos				Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**		**% Type**
DS-01 *071306931-0001*	2'X2' White Ceiling Tile	Gray Fibrous Homogeneous	40% 10%	Cellulose Min. Wool	50%	Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis				
DS-02 *071306931-0002*	2'X2' White Ceiling Tile	Gray Fibrous Homogeneous	40% 10%	Cellulose Min. Wool	50%	Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis				
DS-03-Floor Tile *071306931-0003*	1'x1' Blue Floor Tile	Blue Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
DS-03-Mastic *071306931-0003A*	1'x1' Blue Floor Tile	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
DS-04-Floor Tile *071306931-0004*	1'x1' Blue Floor Tile	Blue Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
DS-04-Mastic *071306931-0004A*	1'x1' Blue Floor Tile	Yellow Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
DS-05-Floor Tile *071306931-0005*	1'x1' Brown Floor Tile	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**
DS-05-Mastic *071306931-0005A*	1'x1' Brown Floor Tile	Brown Non-Fibrous Homogeneous			100%	Non-fibrous (other)	**None Detected**

Analyst(s)

Anthony Sanaie (22)
Victoria Panariello (18)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/12/2013 10:41:37

EMSL Analytical, Inc
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Phone/Fax: (770) 956-9150 / (770) 956-9181
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Project: **Brook Run Park**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
DS-06-Floor Tile *071306931-0006*	1'x1' Brown Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-06-Mastic *071306931-0006A*	1'x1' Brown Floor Tile	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-07-Floor Tile *071306931-0007*	3'x3' Tan Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-07-Mastic *071306931-0007A*	3'x3' Tan Floor Tile	Brown/Black Non-Fibrous Homogeneous	<1% Cellulose	98% Non-fibrous (other)	**2% Chrysotile**
DS-08-Floor Tile *071306931-0008*	3'x3' Tan Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-08-Mastic *071306931-0008A*	3'x3' Tan Floor Tile	Brown/Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-09 *071306931-0009*	1'X1' White Ceiling Tile	Gray Fibrous Homogeneous		94% Non-fibrous (other)	**3% Chrysotile** **3% Amosite**
			Inseparable paint / coating layer included in analysis		
DS-10 *071306931-0010*	1'X1' White Ceiling Tile	Gray Fibrous Homogeneous	40% Cellulose 10% Min. Wool	50% Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis		

Analyst(s)

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Victoria Panariello (18)

Victoria Panariello, Asbestos Lab Manager
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Initial report from 12/12/2013 10:41:37

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
DS-11 *071306931-0011*	Brown Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-12 *071306931-0012*	Brown Window Caulk	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-13 *071306931-0013*	White,Internal Door Fireproofing	White Fibrous Homogeneous		10% Non-fibrous (other)	**60% Chrysotile** **30% Amosite**
DS-14 *071306931-0014*	White,Internal Door Fireproofing	White Fibrous Homogeneous		10% Non-fibrous (other)	**60% Chrysotile** **30% Amosite**
DS-15-Floor Tile *071306931-0015*	1'x1' Tan + White Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-15-Mastic *071306931-0015A*	1'x1' Tan + White Floor Tile	Various Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	**<1% Chrysotile**
			Result includes a small amount of inseparable attached material		
DS-16-Floor Tile *071306931-0016*	1'x1' Tan + White Floor Tile	Tan Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-16-Mastic *071306931-0016A*	1'x1' Tan + White Floor Tile	Various Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	**<1% Chrysotile**
			Result includes a small amount of inseparable attached material		

Analyst(s)

Anthony Sanaie (22)
Victoria Panariello (18)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/12/2013 10:41:37

EMSL Analytical, Inc
2205 Corporate Plaza Parkway SE, Suite 200, Smyrna, GA 30080
Phone/Fax: (770) 956-9150 / (770) 956-9181
http://www.EMSL.com atlantalab@emsl.com

EMSL Order:	071306931
CustomerID:	GEOH50
CustomerPO:	130569.00
ProjectID:	

Attn: **Jarrett Baggett**
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Ste. 290
Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/09/13 9:11 AM
Analysis Date:	12/12/2013
Collected:	12/5/2013

Project: **Brook Run Park**

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

Sample	Description	Appearance	Non-Asbestos % Fibrous	Non-Asbestos % Non-Fibrous	Asbestos % Type
DS-17-Wrap *071306931-0017*	Thermal System Insulation	Various Fibrous Homogeneous	70% Cellulose	30% Non-fibrous (other)	**None Detected**
			Result includes a small amount of inseparable attached material		
DS-17-Insulation *071306931-0017A*	Thermal System Insulation	Tan Fibrous Homogeneous	80% Glass	20% Non-fibrous (other)	**None Detected**
DS-18-Wrap *071306931-0018*	Thermal System Insulation	White Fibrous Homogeneous	10% Cellulose 30% Glass	60% Non-fibrous (other)	**None Detected**
DS-18-Insulation *071306931-0018A*	Thermal System Insulation	Pink Fibrous Homogeneous	80% Glass	20% Non-fibrous (other)	**None Detected**
DS-19 *071306931-0019*	2'x2' White Ceiling Tile	Brown Fibrous Homogeneous	40% Cellulose 5% Glass 5% Min. Wool	50% Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis		
DS-20 *071306931-0020*	2'x2' White Ceiling Tile	Brown Fibrous Homogeneous	40% Cellulose 5% Glass 5% Min. Wool	50% Non-fibrous (other)	**None Detected**
			Inseparable paint / coating layer included in analysis		
DS-21-Floor Tile *071306931-0021*	1'x1'Black + White Floor Tile	White Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)

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Project: **Brook Run Park**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
DS-21-Mastic *071306931-0021A*	1'x1'Black + White Floor Tile	Yellow Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	**None Detected**
DS-22-Floor Tile *071306931-0022*	1'x1'Black + White Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-22-Mastic *071306931-0022A*	1'x1'Black + White Floor Tile	Yellow Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-23 *071306931-0023*	1'x1' Black Floor Tile	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-24 *071306931-0024*	1'x1' Black Floor Tile	Black Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
			Result includes a small amount of inseparable attached material		
DS-25-Floor Tile *071306931-0025*	1'x1' Beige Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
DS-25-Mastic *071306931-0025A*	1'x1' Beige Floor Tile	Various Non-Fibrous Heterogeneous	<1% Cellulose	100% Non-fibrous (other)	**<1% Chrysotile**
			Result includes a small amount of inseparable attached material		
DS-26-Floor Tile *071306931-0026*	1'x1' Beige Floor Tile	Beige Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Project: **Brook Run Park**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
DS-26-Mastic *071306931-0026A*	1'x1' Beige Floor Tile	Various Non-Fibrous Homogeneous	<1% Cellulose	100% Non-fibrous (other)	**<1% Chrysotile**

Result includes a small amount of inseparable attached material

Analyst(s)

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Victoria Panariello, Asbestos Lab Manager
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071306931

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 071306931

EMSL ANALYTICAL, INC.
2205 CORPORATE PLAZA PKWY
SUITE 200
SMYRNA, GA 30080
PHONE: (770) 956-9150
FAX: (770) 956-9181

Company: Geo-Hydro Engineers, Inc.	**EMSL-Bill to:** ☑ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 1000 Cobb Place Blvd. NW, Suite 290	*Third Party Billing requires written authorization from third party*
City: Kennesaw **State/Province:** GA	**Zip/Postal Code:** 30144 **Country:** US
Report To (Name): Jarrett Baggett	**Telephone #:** 770-426-7100 x 107
Email Address: jbaggett@geohydro.com	**Fax #:** 770-426-5209 **Purchase Order:**
Project Name/Number: Brook Run Park / 130569.00	**Please Provide Results:** ☐ Fax ☑ Email
U.S. State Samples Taken: Georgia	**Connecticut Samples:** ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☐ 72 Hour ☐ 96 Hour ☑ 1 Week ☐ 2 Week

**For TEM Air 3 hr through 6 hr, please call ahead to schedule.*There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.*

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Jarrett Baggett **Samplers Signature:** Jarrett Baggett

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
DS-01	2'x2' white ceiling tile	Bulk	12-5-13/1459
DS-02	2'x2' white ceiling tile	Bulk	12-5-13/1501
DS-03	1'x1' blue Floor tile	Bulk	12-5-13/1504
DS-04	1'x1' blue Floor tile	Bulk	12-5-13/1506
DS-05	1'x1' brown Floor tile	Bulk	12-5-13/1508
DS-06	1'x1' brown Floor tile	Bulk	12-5-13/1510
DS-07	3'x3' tan Floor tile	Bulk	12-5-13/1511
DS-08	3'x3' tan Floor tile	Bulk	12-5-13/1513

Client Sample # (s): **Total # of Samples:** 26

Relinquished (Client): Jarrett Baggett **Date:** 12-6-13 **Time:** 1400

Received (Lab): **Date:** 12/6/13 **Time:** 1400

Comments/Special Instructions:

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 071306931

EMSL ANALYTICAL, INC.
2205 CORPORATE PLAZA PKWY
SUITE 200
SMYRNA, GA 30080
PHONE: (770) 956-9150
FAX: (770) 956-9181

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
DS-09	1'x1' white ceiling tile	Bulk	1515
DS-10	1'x1' white ceiling tile	Bulk	1519
DS-11	Brown Window Caulk	Bulk	1522
DS-12	Brown Window Caulk	Bulk	1526
DS-13	White, Internal door Fireproofing	Bulk	1530
DS-14	White, Internal door Fireproofing	Bulk	1530
DS-15	1'x1' tan + white Floor tile	Bulk	1545
DS-16	1'x1' tan + white Floor tile	Bulk	1550
DS-17	Thermal System Insulation	Bulk	1555
DS-18	Thermal System Insulation	Bulk	1557
DS-19	2'x2' white ceiling tile	Bulk	1559
DS-20	2'x2' white ceiling tile	Bulk	1605
DS-21	1'x1' black + white Floor tile	Bulk	1610
DS-22	1'x1' black + white Floor tile	Bulk	1612
DS-23	1'x1' black Floor tile	Bulk	1614
DS-24	1'x1' black Floor tile	Bulk	1615
DS-25	1'x1' beige Floor tile	Bulk	1617
DS-26	1'x1' beige Floor tile	Bulk	1620

***Comments/Special Instructions:**

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Phone/Fax: (770) 956-9150 / (770) 956-9181
http://www.EMSL.com atlantalab@emsl.com

EMSL Order:	071307074
CustomerID:	GEOH50
CustomerPO:	
ProjectID:	

Attn: **Jarrett Baggett**
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Ste. 290
Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/13/13 12:35 PM
Analysis Date:	12/18/2013
Collected:	12/12/2013

Project: **Brook Run Park/13057200**

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

			Non-Asbestos			Asbestos	
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**%**	**Type**
T-01-Floor Tile *071307074-0001*	Black 1x1' Tile Floor	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-01-Mastic *071307074-0001A*	Black 1x1' Tile Floor	Brown Non-Fibrous Homogeneous			95% Non-fibrous (other)	**5%**	**Chrysotile**
T-02-Floor Tile *071307074-0002*	Black 1x1' Tile Floor	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-02-Glue *071307074-0002A*	Black 1x1' Tile Floor	Brown Non-Fibrous Homogeneous	2%	Cellulose	95% Non-fibrous (other)	**3%**	**Chrysotile**
T-03-Floor Tile *071307074-0003*	White 1x1' Floor Tile	White Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-03-Mastic *071307074-0003A*	White 1x1' Floor Tile	Brown Non-Fibrous Homogeneous	<1%	Cellulose	98% Non-fibrous (other)	**2%**	**Chrysotile**
T-04-Floor Tile *071307074-0004*	White 1x1' Floor Tile	White Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-04-Mastic *071307074-0004A*	White 1x1' Floor Tile	Brown Non-Fibrous Homogeneous	2%	Cellulose	96% Non-fibrous (other)	**2%**	**Chrysotile**

Analyst(s)

Lauren Kerber (16)
Victoria Panariello (15)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/18/2013 11:29:23

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Project: **Brook Run Park/13057200**

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

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
T-05 *071307074-0005*	White 2x2' Ceiling Tile	Gray Non-Fibrous Homogeneous	25%	Min. Wool	73%	Non-fibrous (other)	**2%**	**Amosite**
T-06 *071307074-0006*	White 2x2' Ceiling Tile	Gray Fibrous Homogeneous	25%	Min. Wool	73%	Non-fibrous (other)	**2%**	**Amosite**
		Inseparable paint / coating layer included in analysis						
T-07-Floor Tile *071307074-0007*	Beige 3x3' Floor Tile	Beige Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-07-Mastic *071307074-0007A*	Beige 3x3' Floor Tile	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-08-Floor Tile *071307074-0008*	Beige 3x3' Floor Tile	Beige Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-08-Glue *071307074-0008A*	Beige 3x3' Floor Tile	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-09-Tape *071307074-0009*	Yellow TSI	Various Fibrous Homogeneous	10% 60%	Glass Cellulose	30%	Non-fibrous (other)		**None Detected**
T-09-Insulation *071307074-0009A*	Yellow TSI	Yellow Fibrous Homogeneous	90%	Min. Wool	10%	Non-fibrous (other)		**None Detected**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
T-10 *071307074-0010*	White/Gray Spray On Ceiling	Gray/White Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-11 *071307074-0011*	White/Gray Spray On Ceiling	Gray/White Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-12 *071307074-0012*	Yellow Chill Water Line TSI	White/Yellow Fibrous Homogeneous	80% Min. Wool 10% Glass	10% Non-fibrous (other)	**None Detected**
T-13 *071307074-0013*	Yellow Boiler Wrap	White/Yellow Fibrous Homogeneous	10% Synthetic 80% Min. Wool	10% Non-fibrous (other)	**None Detected**
T-14 *071307074-0014*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-15 *071307074-0015*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-16 *071307074-0016*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-17 *071307074-0017*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
T-18 *071307074-0018*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-19 *071307074-0019*	White Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other) Inseparable paint / coating layer included in analysis	**None Detected**
T-20 *071307074-0020*	White Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other) Inseparable paint / coating layer included in analysis	**None Detected**
T-21 *071307074-0021*	BlackAsphalt Roof	Black Fibrous Heterogeneous	3% Cellulose 10% Glass 5% Synthetic This is a composite analysis of inseparable roofing layers.	82% Non-fibrous (other)	**None Detected**
T-22 *071307074-0022*	BlackAsphalt Roof	Black Fibrous Heterogeneous	15% Cellulose 10% Glass 5% Synthetic This is a composite analysis of inseparable roofing layers.	70% Non-fibrous (other)	**None Detected**
T-23 *071307074-0023*	Brown Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
T-24 *071307074-0024*	Brown Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

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Victoria Panariello (15)

Victoria Panariello, Asbestos Lab Manager
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071307074

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 071307074

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Company: Geo-Hydro Engineers, Inc.	EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different note instructions in Comments**
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City: Kennesaw State/Province: GA	Zip/Postal Code: 30144 Country: US
Report To (Name): Jarrett Daggett	Telephone #: 770426-7100 x107
Email Address: jbaggett@geohydro.com	Fax #: 770-426-3209 Purchase Order:
Project Name/Number: Brook Run Park / 1305720	Please Provide Results: ☐ Fax ☑ Email
U.S. State Samples Taken:	Connecticut Samples: ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☑ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Jarrett Daggett **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
T-01	Black 1x1' tile Floor	Bulk	12-12-13/1335
T-02	Black 1x1' tile Floor	Bulk	12-12-13/1336
T-03	White 1x1' Floor tile	Bulk	12-12-13/1338
T-04	White 1x1' Floor tile	Bulk	12-12-13/1340
T-05	White 2x2' ceiling tile	Bulk	12-12-13/1345
T-06	White 2x2' ceiling tile	Bulk	12-12-13/1347
T-07	Beige 3x3' Floor tile	Bulk	12-12-13/1351
T-08	Beige 3x3' Floor tile	Bulk	12-12-13/1355

Client Sample # (s): **Total # of Samples:** 24

Relinquished (Client): Jarrett Daggett **Date:** 12-13-13 **Time:** 1235

Received (Lab): **Date:** 12/13/13 **Time:** 1235

Comments/Special Instructions:

071307074

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*):

071307074

EMSL ANALYTICAL, INC.
2205 CORPORATE PLAZA PKWY
SUITE 200
SMYRNA, GA 30080
PHONE: (770) 956-9150
FAX: (770) 956-9181

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
T-09	Yellow TSI	Bulk	12-12-13/1405
T-10	White/Gray Spray on Ceiling	Bulk	12-12-13/1425
T-11	White/Gray Spray on Ceiling	Bulk	12-12-13/1430
T-12	Yellow, Chill Water Line TSI	Bulk	12-12-13/1450
T-13	Yellow Boiler Wrap	Bulk	12-12-13/1455
T-14	Gray, Spray on Fireproofing	Bulk	12-12-13/1459
T-15	Gray Spray on Fireproofing	Bulk	12-12-13/1510
T-16	Gray Spray on Fireproofing	Bulk	12-12-13/1515
T-17	Gray Spray on Fireproofing	Bulk	12-12-13/1525
T-18	Gray Spray on Fireproofing	Bulk	12-12-13/1540
T-19	White Plaster Wall	Bulk	12-12-13/1545
T-20	White Plaster Wall	Bulk	12-12-13/1555
T-21	Black Asphalt Roof	Bulk	12-12-13/1605
T-22	Black Asphalt Roof	Bulk	12-12-13/1608
T-23	Brown Window Caulk	Bulk	12-12-13/1615
T-24	Brown Window Caulk	Bulk	12-12-13/1620

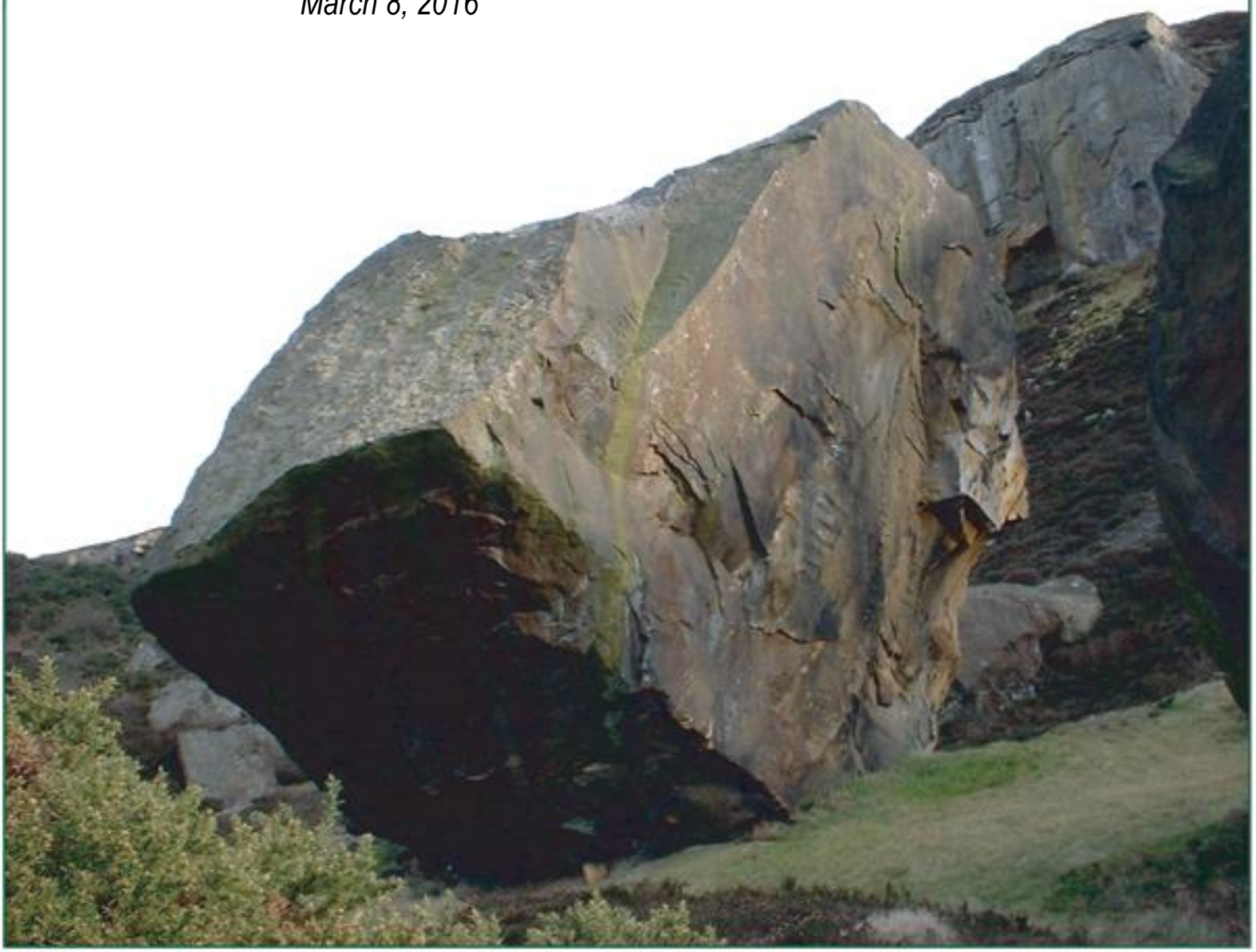
***Comments/Special Instructions:**

GEO HYDRO ENGINEERS

Addendum Report of Comprehensive Asbestos Survey

Theatre Building
Brook Run Park
Dunwoody, DeKalb County, Georgia
Geo-Hydro Project Number 150114.30

Dunwoody Public Works
March 8, 2016



Mr. Brent Walker
Dunwoody Public Works
41 Perimeter Center East
Suite 250
Dunwoody, Georgia 30346

March 8, 2016

Addendum Report of
Pre-Demolition Environmental Assessment
Theatre Building
Brook Run Park
Dunwoody, DeKalb County, Georgia
Geo-Hydro Project Number 150114.0

Dear Mr. Walker:

Geo-Hydro Engineers, Inc. (Geo-Hydro) has completed the Addendum Pre-Demolition Asbestos Survey for Brook Run Park's theater building. Brook Run Park is located at Georgia Way South in Dunwoody, DeKalb County, Georgia. The purpose of the addendum pre-demolition surveys is to identify and quantify regulated asbestos containing building materials (ACMs) that require special handling during demolition that were not identified in Geo-Hydro's previous report dated January 23, 2014, Geo-Hydro project No. 130572.00.

Our work was done in general accordance with our proposal 16291 dated October 14, 2013. This report and our observations are intended solely for the benefit of Dunwoody Public Works and may not be used or relied upon by any other party without Geo-Hydro's prior written consent.

SITE DESCRIPTION

The subject property consists of a theater building located on the Brook Run Park property located at Georgia Way South in Dunwoody, DeKalb County, Georgia. The approximate site location is shown on Figure 1 in the Appendix. Details of the theater building are listed below:

- The theatre building is an unoccupied concrete, block and brick structure with a basement and with a shingle/paper roof system. The exterior walls are brick. The attic space was observed to be un-insulated. The building's ceilings were suspended 12-inch square ceiling tiles, 24-inch square ceiling tiles, and spray-on and troweled-on ceilings. The interior walls were brick, concrete block, and concrete block covered by a plaster skim coat. The concrete floor on the main level was covered by 12-inch, carpet, and the concrete floor in the basement was uncovered concrete. The observed plumbing systems were un-insulated or insulated with fiberglass.

PROCEDURES

Suspect Asbestos and Lead-Based Paint Sampling

Mr. Jarrett Baggett a certified Asbestos-In-Buildings Inspector (Toxic Substances Control Act (TSCA) Title II) performed a limited asbestos screen for the theatre building on February 29, 2016. The asbestos screen was performed in general accordance with **ASTM E2356-10** *Standard Practice for Comprehensive Building Asbestos Surveys*. Mr. Baggett expended reasonable time and effort to identify and sample as many homogeneous areas of suspect ACMs that were not identified in Geo-Hydro's January 23, 2014, Pre-Demolition Environmental Assessment Report. Visually identified suspect materials were sampled to represent conditions of accessible building space.

Due to the hidden nature of many building components it may be impossible to determine if all of the suspected building materials have been located and tested. Destructive testing in some cases is not a viable option. Therefore, we cannot guarantee that all suspect ACMs have been located and sampled. For the same reasons, estimates of ACM quantities and current physical conditions are subject to observations made during the site visit. In the event that suspect ACMs are discovered, please contact Geo-Hydro to examine and possibly collect additional building material samples.

A total of 11 samples of suspect ACMs were collected and analyzed for asbestos. The suspect asbestos samples were submitted to Analytical Environmental Services, Inc. (AES) in Atlanta, Georgia. AES is accredited by the National Voluntary Laboratory Accreditation Program (NVLAP) and the American Industrial Hygiene Association (AIHA) for bulk asbestos fiber analysis. The samples were analyzed for asbestos content using polarized light microscopy (PLM) and dispersion staining (EPA Method 600/R-93/116).

FINDINGS

Asbestos Containing Building Materials

The ACM samples and corresponding percent (%) of asbestos detected are noted below. The quantities of ACM noted are provided for informational purposes only, and are not to be used for asbestos abatement cost estimates. **Asbestos contractors are expected to calculate their own ACM quantities for cost estimating and regulatory notification purposes.**

Theatre Building:

Transite Ceiling Tiles: Laboratory analysis detected 20% chrysotile asbestos in samples T-02 and T-04, of the grey, perforated transite ceiling tiles located on the entrance and window overhangs around the outside of the theatre building. The transite ceiling tiles are a Category I non-friable ACM as long as the transite ceiling tiles are removed using methods that will not cause the transite ceiling tiles to become friable. Approximately 400 square feet of transite ceiling tiles were observed on the entrance and window overhangs around the outside of the theatre building

White (12-Inch Square) Ceiling Tile: Laboratory analysis detected 3% amosite asbestos in samples T-07 and T-08 of the white, 12-inch square ceiling tile. The white, 12-inch square ceiling tile are a Category I non-friable ACM as long as the white, 12-inch square ceiling tile are removed using methods that will not cause the white, 12-inch square ceiling tile to become friable. Approximately 2,700 square feet of white, 12-inch square ceiling tile was observed in the chapel room and gym room of the theatre building.

Glue Under Carpet: Laboratory analysis detected 2% chrysotile asbestos in samples T-10 and T-11 and of the glue under the carpet located auditorium and the chapel room of the theatre building. The glue system is a Regulated Asbestos Containing Material (RACM). Approximately 8,000 square feet of carpet with this glue underneath was observed in the auditorium and chapel room.

Theatre Building – Previously Identified in Geo-Hydro's January 23, 2014, Report:

Mastic Under Black and White (12-Inch Square) Floor Tile: Laboratory analysis detected 5%, 3%, 2%, and 2% chrysotile asbestos in samples TS-01 through TS-04, respectively, of the black and white, 12-inch square floor tile mastic. The floor tile system is a Category I non-friable ACM as long as the floor tile system is removed using methods that will not cause the floor tile system to be friable. Approximately 1,300 square feet of black and white, 12-inch square floor tile were observed in the front lobby area of the theatre building.

White (24-Inch Square) Ceiling Tile: Laboratory analysis detected 2% amosite asbestos in samples TS-05 and TS-06 of the ceiling tile. The ceiling tile system is a Category I non-friable ACM as long as the ceiling tile system is removed using methods that will not cause the ceiling tile system to be friable. Approximately 5,000 square feet of 24-inch square ceiling tile were observed throughout the main floor of the theatre building. An additional 2,700 square feet of 12-inch square ceiling tile were observed in the chapel room and gym room of the theatre building. Although a sample of this 12-inch square ceiling tile was not collected, it is the same 12-inch square ceiling tile that was observed in the administrative buildings and found to contain 2% chrysotile asbestos and 2% amosite asbestos. It is the opinion of Geo-Hydro that all 12-inch square ceiling tile in the Theatre Building be treated as an ACM.

Spray on Surfacing Material: Laboratory analysis detected 20% chrysotile asbestos in samples TS-10 and TS-11 and TS-14 through TS-18 of the gray spray on surfacing material located on the structural steel in the basement and on the ceiling of the upstairs projection room of the theatre building. The surfacing material system is a Regulated Asbestos Containing Material (RACM). All of the structural steel in the basement and approximately 650 square feet of ceiling area in the upstairs projection room of the theatre of the theatre building contain the surfacing material. It is likely that additional structural members that are coated with the surfacing material will be uncovered during demolition.

It should be noted, that during demolition activities of previous buildings at Brook Run Park, the buildings' foundations and slabs have had a felt paper and glue, vapor/water proofing layer that is an ACM. Although Geo-Hydro was unable to identify this felt paper and glue, vapor/water proofing layer on the theatre building due to this layer being beneath the land surface, it should be assumed that the foundation and slab system of the theatre building also contains this felt paper and glue, vapor/water proofing system and should be considered for abatement purposes.

CONCLUSIONS AND RECOMMENDATIONS

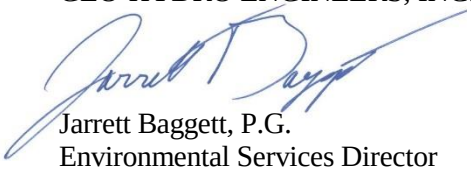
Prior to renovation or demolition, a licensed asbestos abatement contractor should remove and dispose of the asbestos-containing materials identified by this report. Georgia EPD requires notifications for demolition of ACMs encompassing 10 or more square feet. Additionally, ACMs encompassing at least 10 square feet are regulated by the U.S. Environmental Protection Agency (USEPA) under the National Emission Standards for Hazardous Air Pollutants (NESHAP) and also by the Occupational Safety and Health Administration (OSHA) under its worker protection regulations. These regulations require special handling and disposal procedures when asbestos containing materials are disturbed.

*****

Geo-Hydro Engineers, Inc. has appreciated the opportunity to perform this environmental testing. If you have any questions concerning this report, or if we can be of further assistance, please call us.

Sincerely,

GEO-HYDRO ENGINEERS, INC.



Jarrett Baggett, P.G.
Environmental Services Director
jbaggett@geohydro.com

LJB /150114.30 Brook Run Park Theatre Building ACM Survey Addendum Report.doc

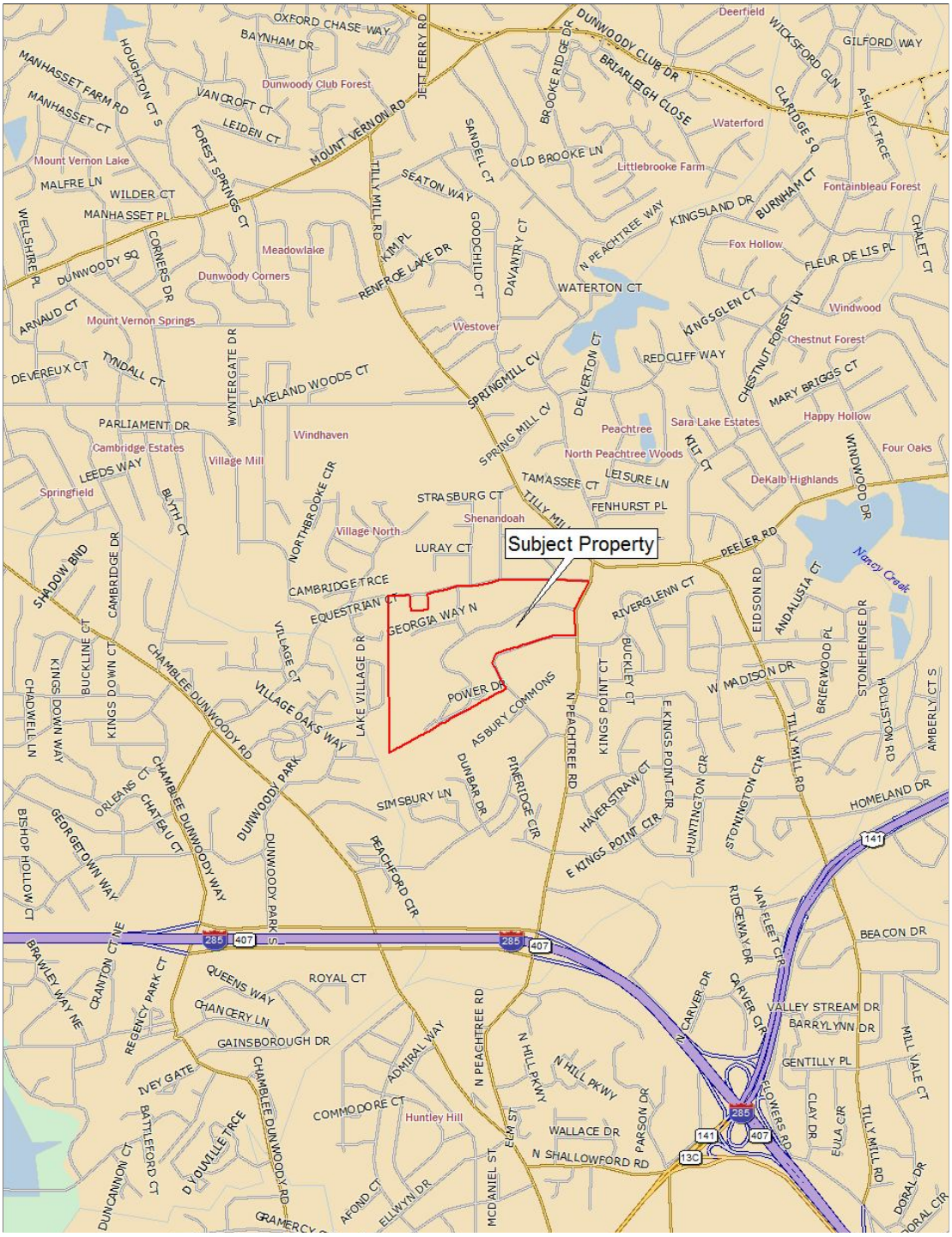
Appendix 1
Figures and Photographs

GEO HYDRO ENGINEERS

Appendix 2

Asbestos Analysis Summary Table

GEO HYDRO ENGINEERS



0 0.25 0.5 1 1.5

Approximate Scale, Miles

Figure 1: Site Location Plan

Brook Run ASB
Dunwoody, Georgia
Geo-Hydro Project Number 130572.00

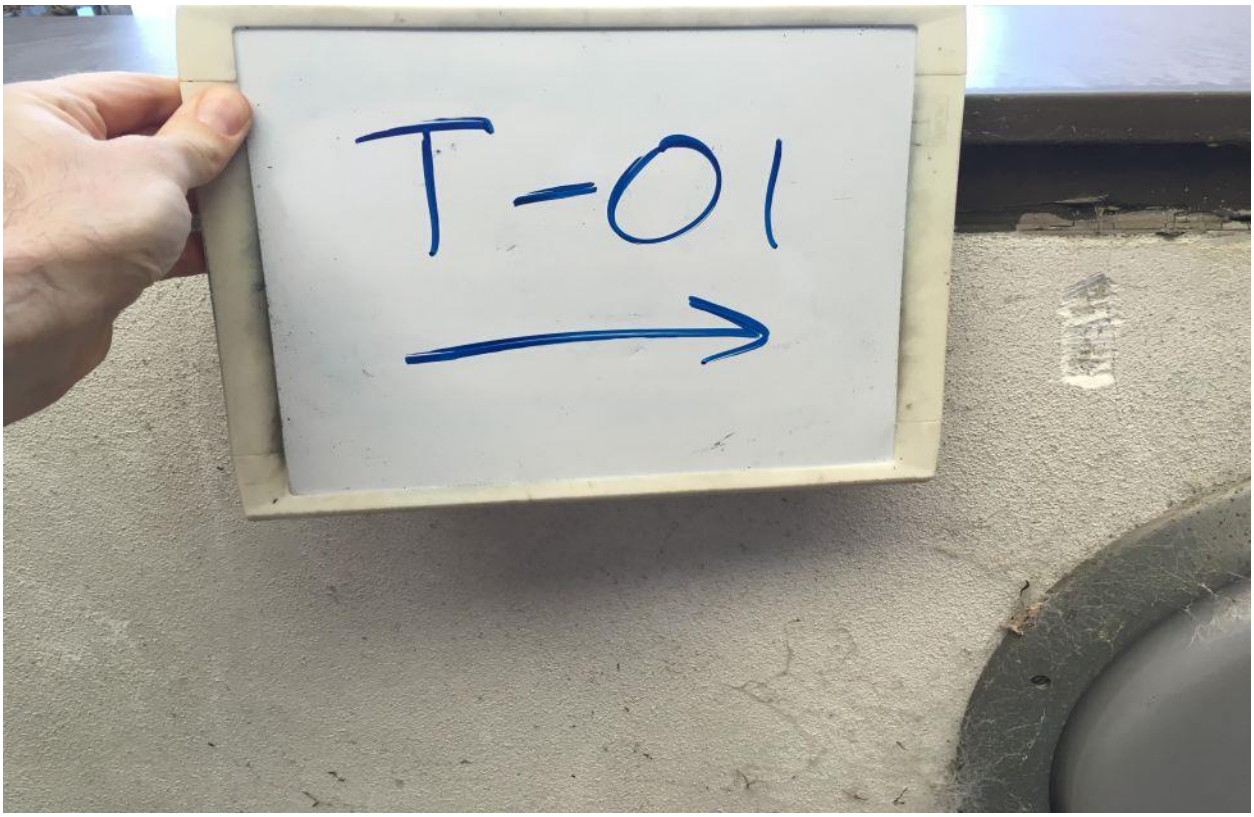


Plate 1: Laboratory analyses did not detect asbestos minerals within the skim coat T-01 sample collected from the north side lobby entrance overhang of the Theatre Building.

Plate 2: Laboratory analyses detected 20% chrysotile asbestos within transite ceiling tile sample T-02 collected from the north side lobby entrance overhang of the Theatre Building.

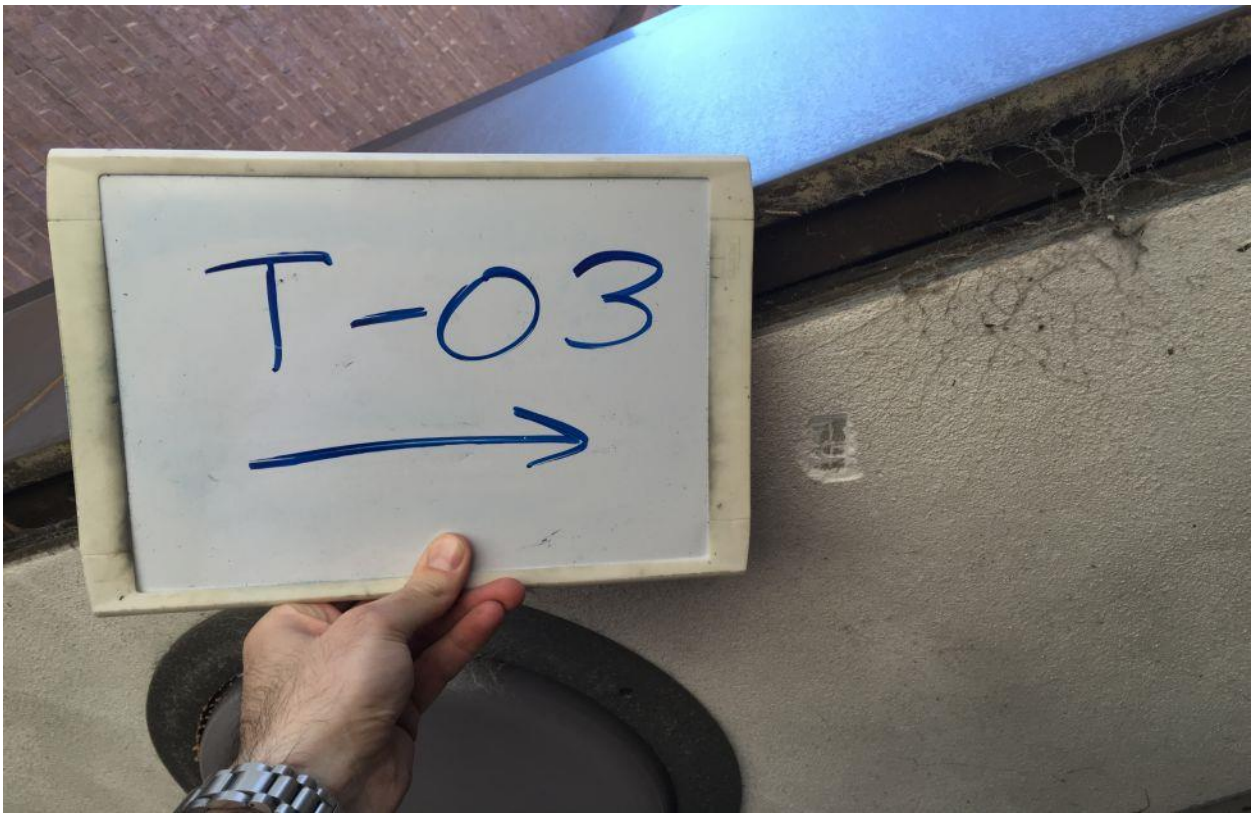


Plate 3: Laboratory analyses did not detect asbestos minerals within the skim coat T-01 sample collected from the south side lobby entrance overhang of the Theatre Building.

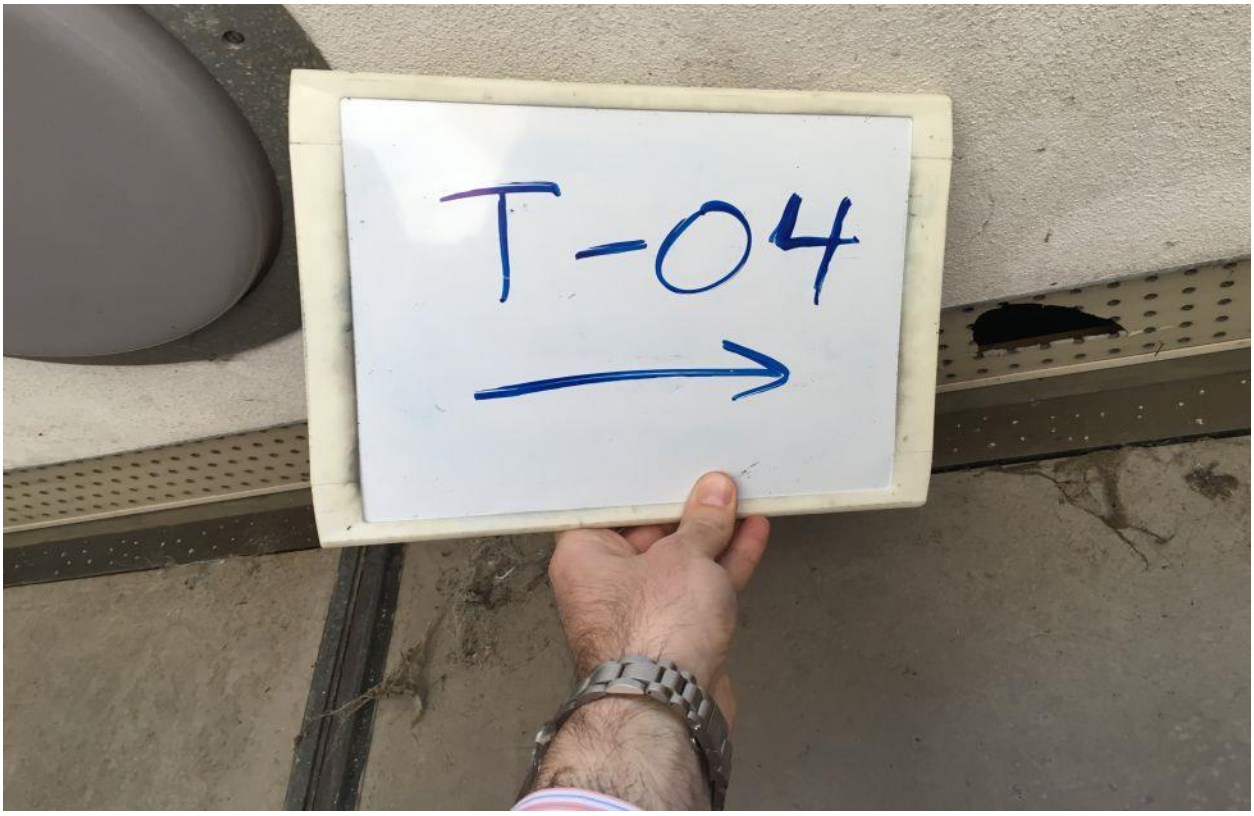


Plate 4: Laboratory analyses detected 20% chrysotile asbestos within transite ceiling tile sample T-02 collected from the south side lobby entrance overhang of the Theatre Building.

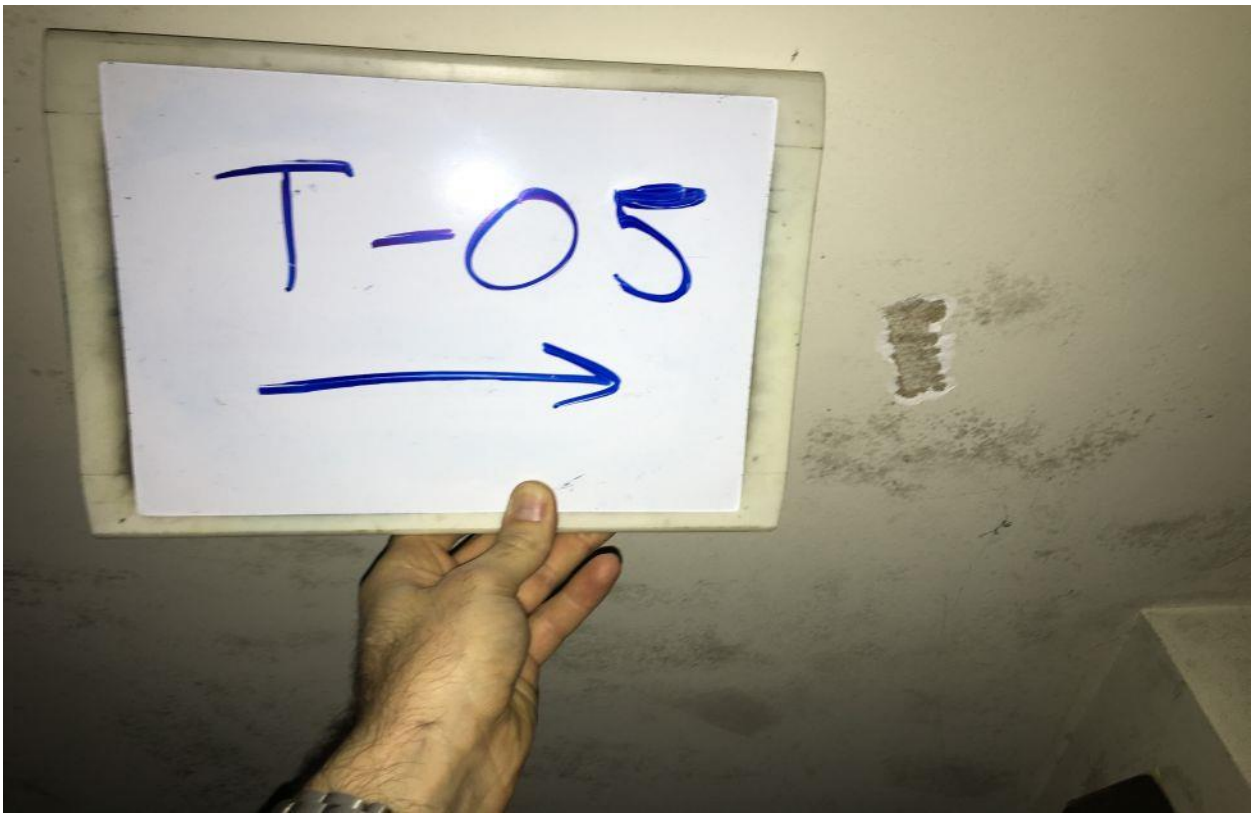


Plate 5: Laboratory analyses did not detect asbestos minerals within the skim coat T-05 sample collected from the auditorium ceiling of the Theatre Building.

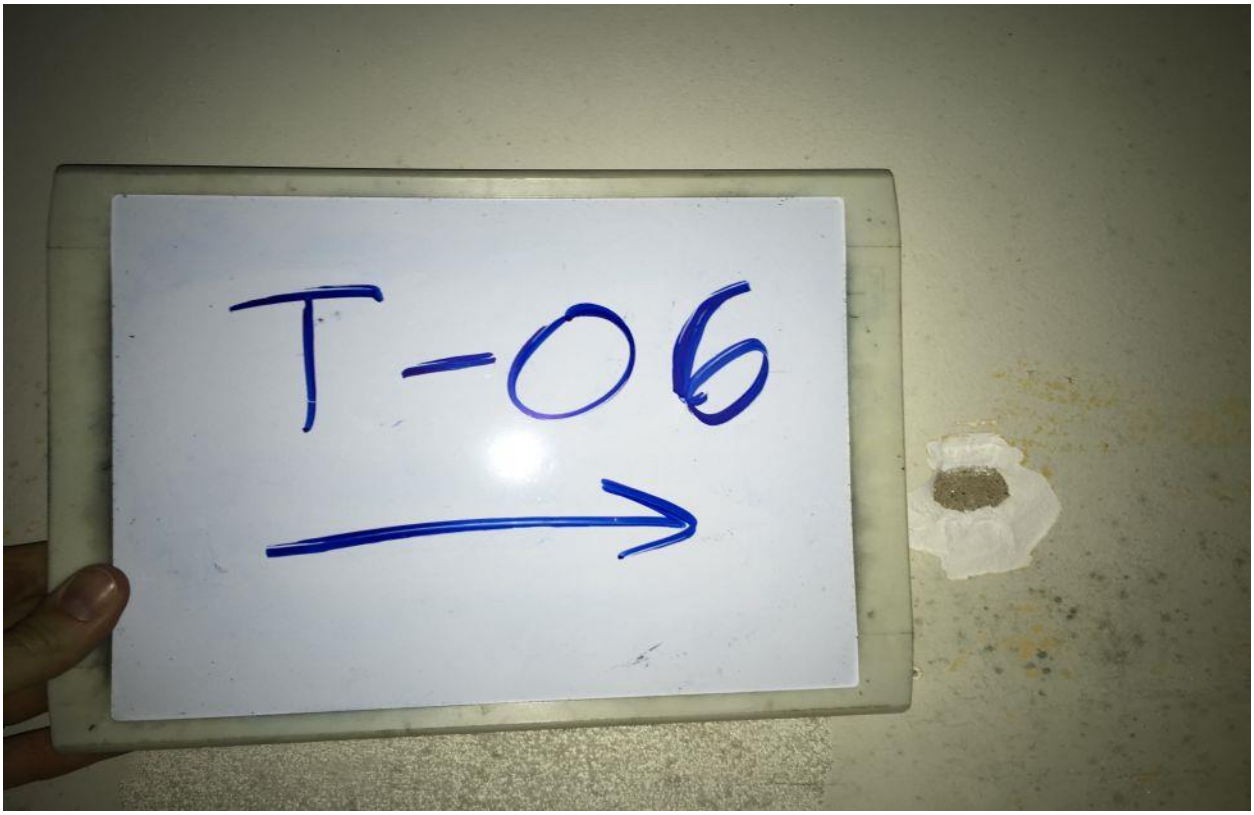


Plate 6: Laboratory analyses did not detect asbestos minerals within the skim coat T-06 sample collected from the auditorium wall of the Theatre Building.

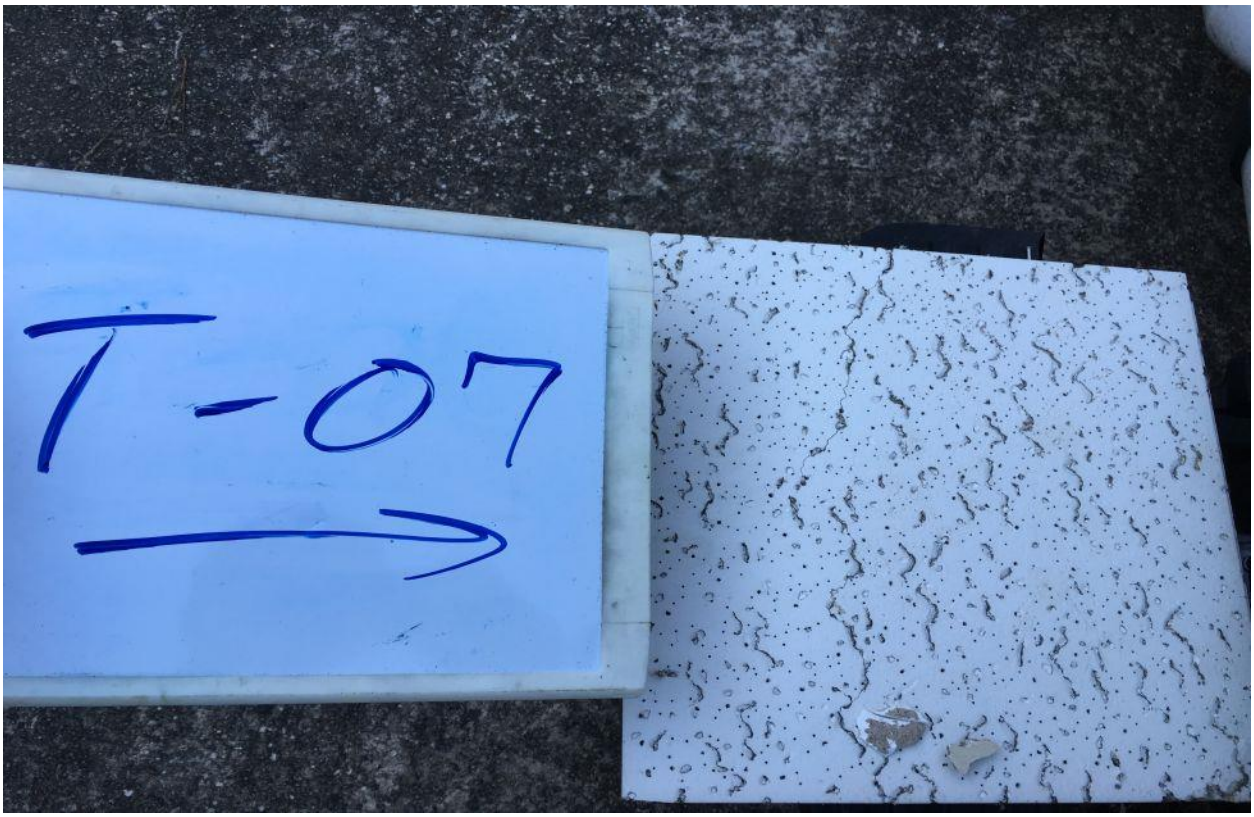


Plate 7: Laboratory analyses detected 3% chrysotile asbestos within 12”x12” ceiling tile sample T-07 collected from the chapel room of the Theatre Building.

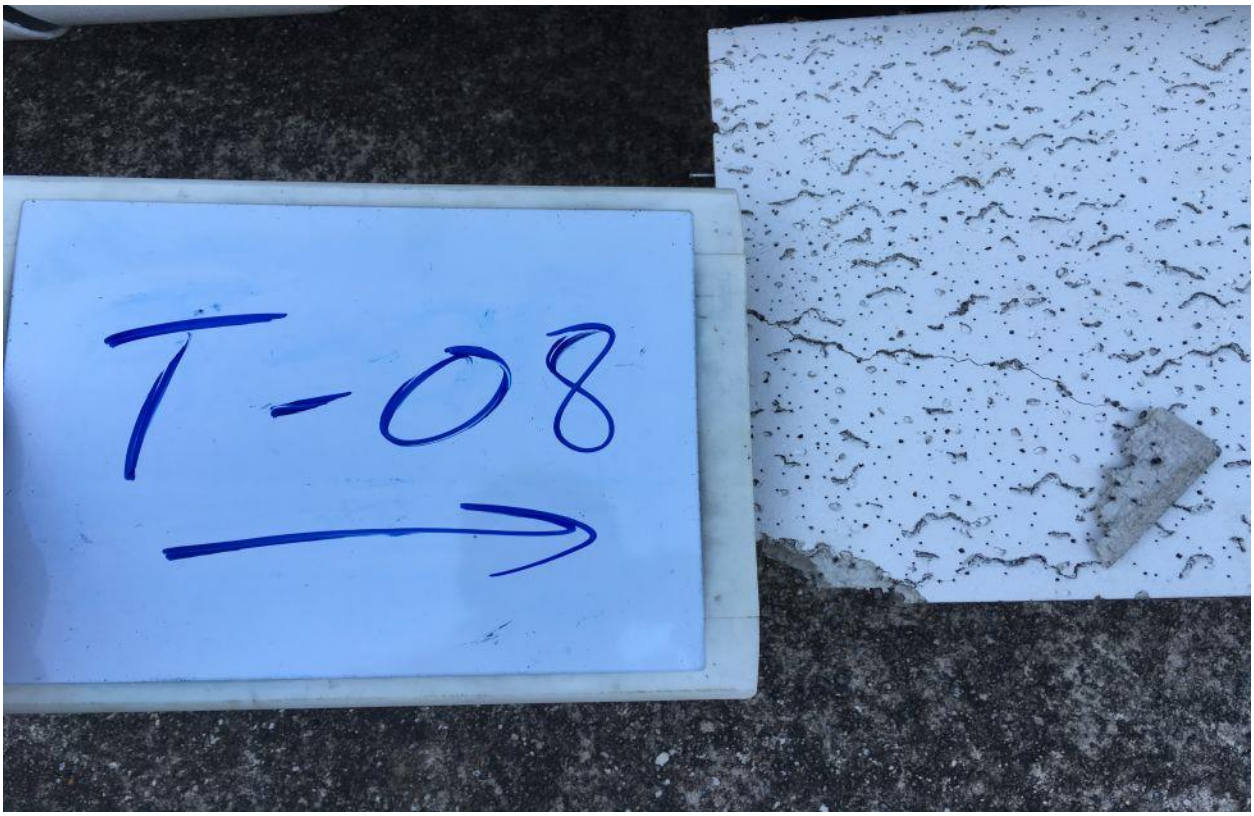


Plate 8: Laboratory analyses detected 3% chrysotile asbestos within 12”x12” ceiling tile sample T-08 collected from the gym room of the Theatre Building.

Plate 9: (Photo was not taken): Laboratory analyses did not detect asbestos minerals within the skim coat T-09 sample collected from the west hallway of the Theatre Building.

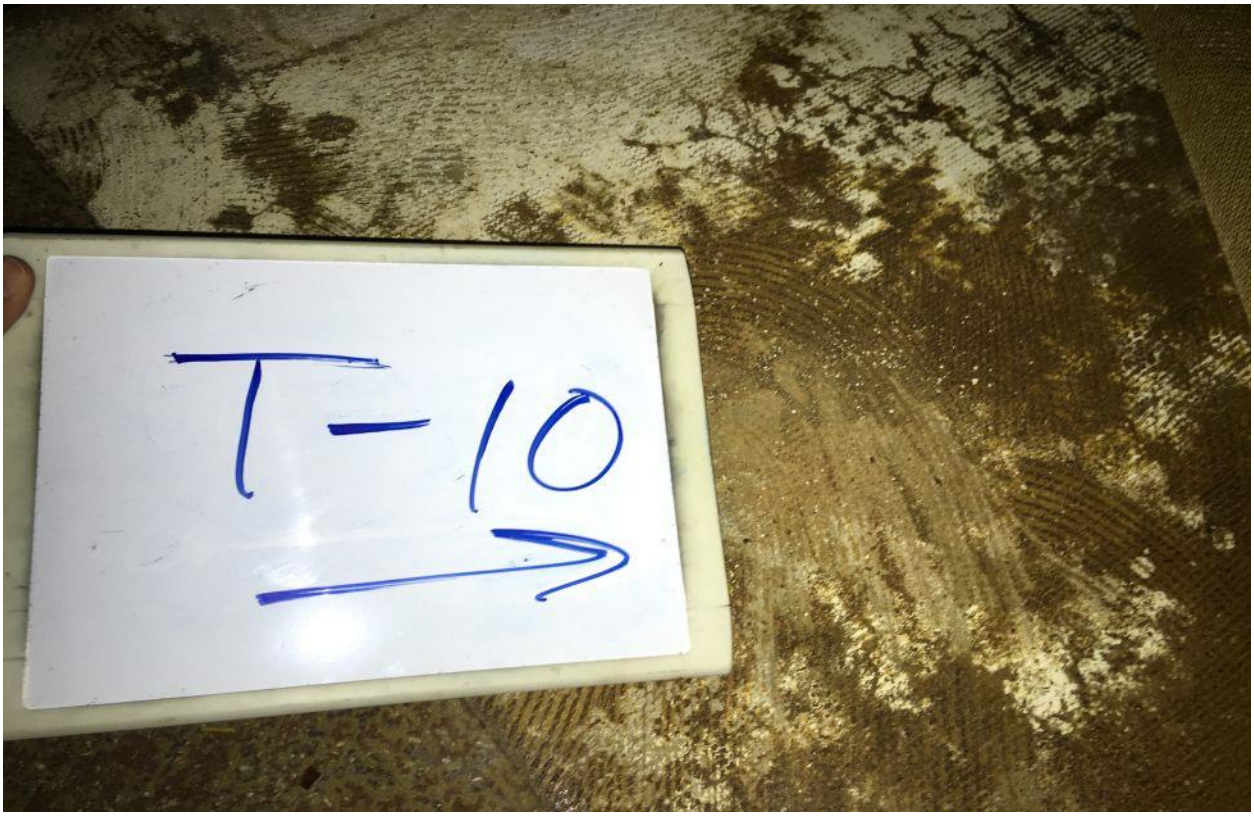


Plate 10: Laboratory analyses detected 2% chrysotile asbestos within the glue T-10 sample collected from the underneath the carpet in the auditorium of the Theatre Building.

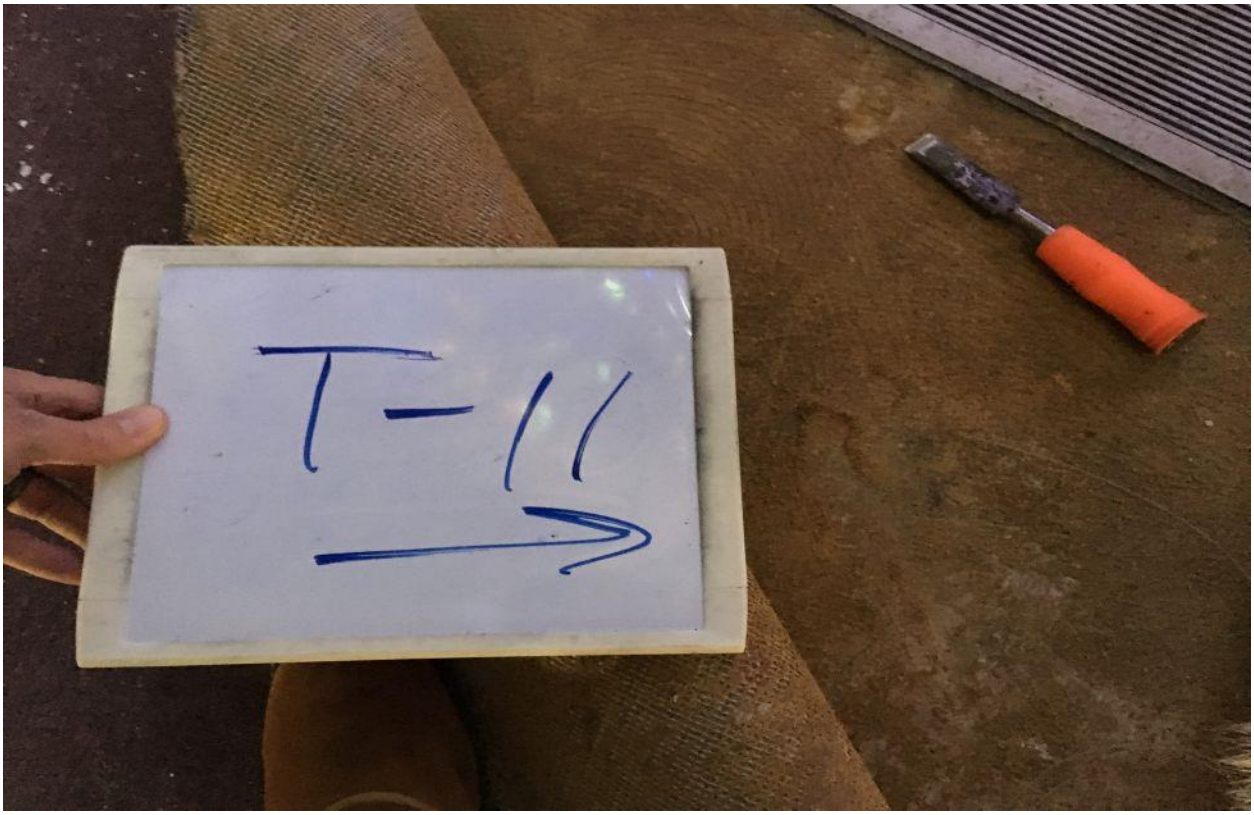


Plate 11: Laboratory analyses detected 2% chrysotile asbestos within the glue T-11 sample collected from the underneath the carpet in the chapel room of the Theatre Building.

December 12, 2013, Survey Photographs

Plate 52: Laboratory analyses did not detect asbestos minerals within the black floor tile from sample TS-01 but did detect 5% chrysotile asbestos in the mastic from sample TS-01 collected from the Theatre Building lobby area.

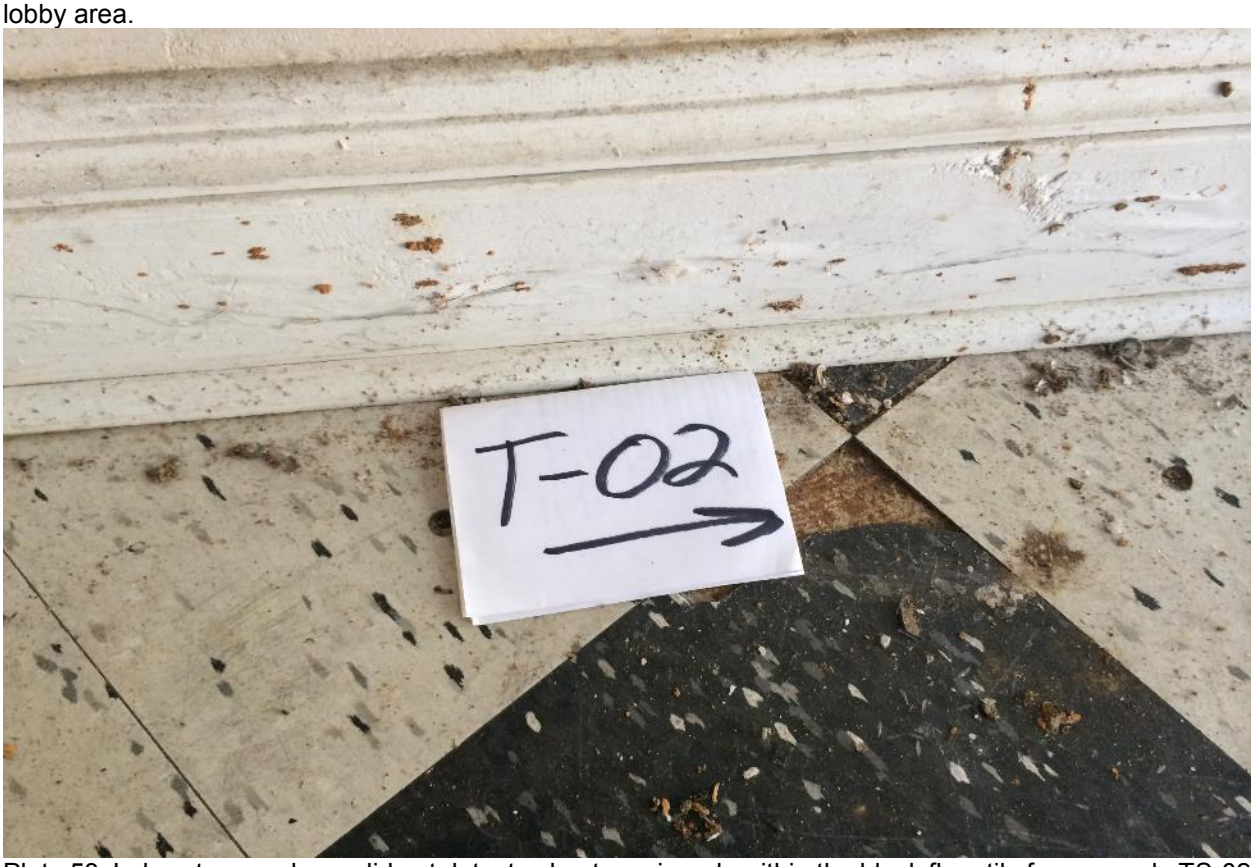


Plate 53: Laboratory analyses did not detect asbestos minerals within the black floor tile from sample TS-02 but did detect 5% chrysotile asbestos in the mastic from sample TS-02 collected from the Theatre Building lobby area.

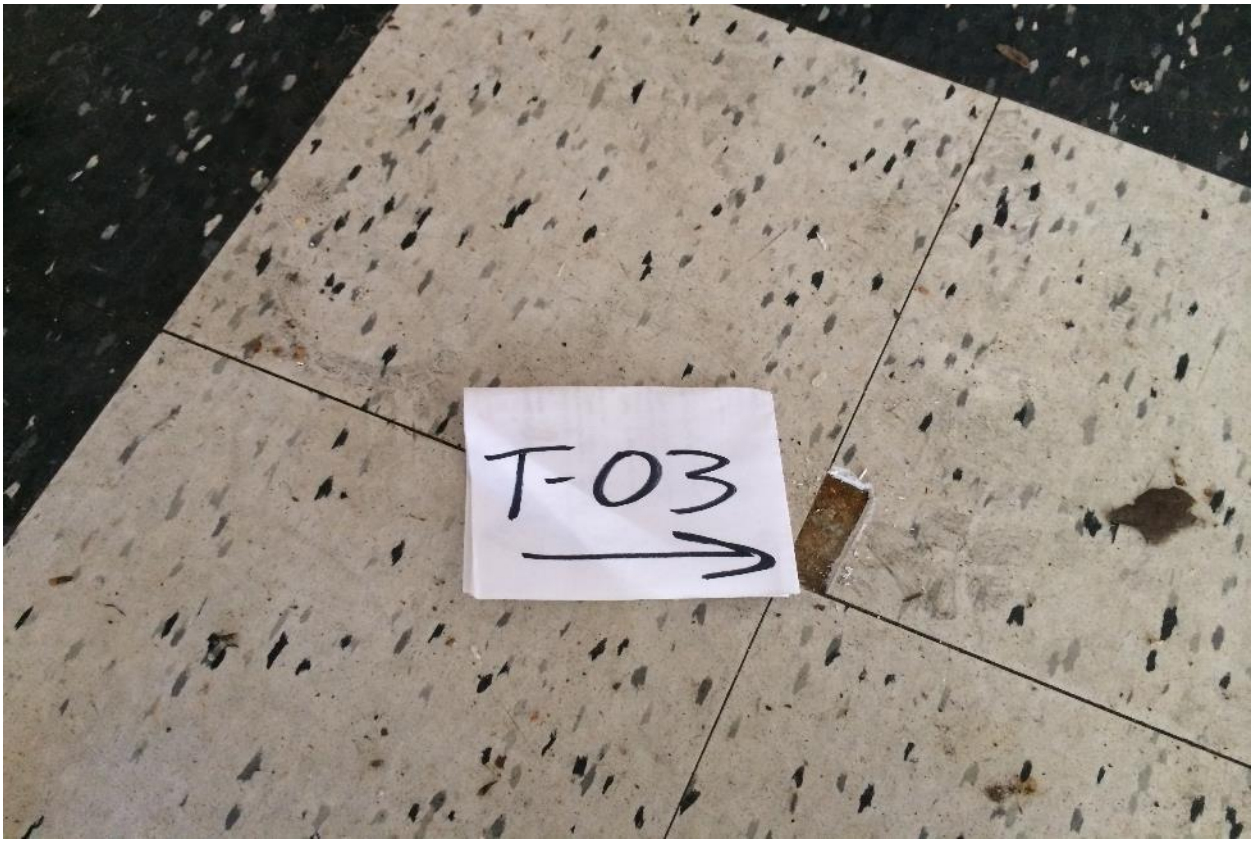


Plate 54: Laboratory analyses did not detect asbestos minerals within the white floor tile from sample TS-03 but did detect 5% chrysotile asbestos in the mastic from sample TS-03 collected from the Theatre Building lobby area.

Plate 55: Laboratory analyses did not detect asbestos minerals within the white floor tile from sample TS-04 but did detect 5% chrysotile asbestos in the mastic from sample TS-04 collected from the Theatre Building lobby area.

Plate 56: Laboratory analyses detected 2% chrysotile asbestos within suspended ceiling tile sample TS-05 collected from the Theatre Building lobby area.

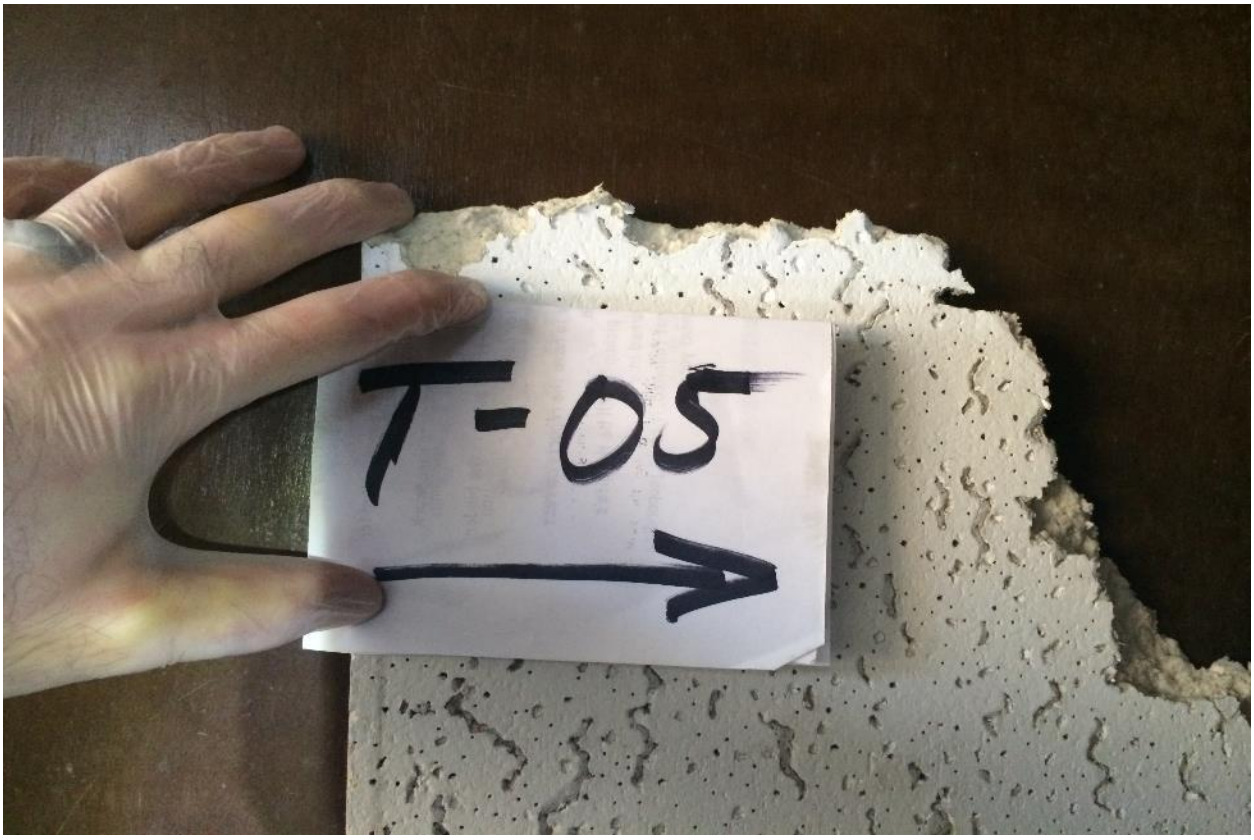


Plate 57: Laboratory analyses detected 2% chrysotile asbestos within suspended ceiling tile sample TS-06 collected from the Theatre Building hallway (sample should be labeled TS-06).

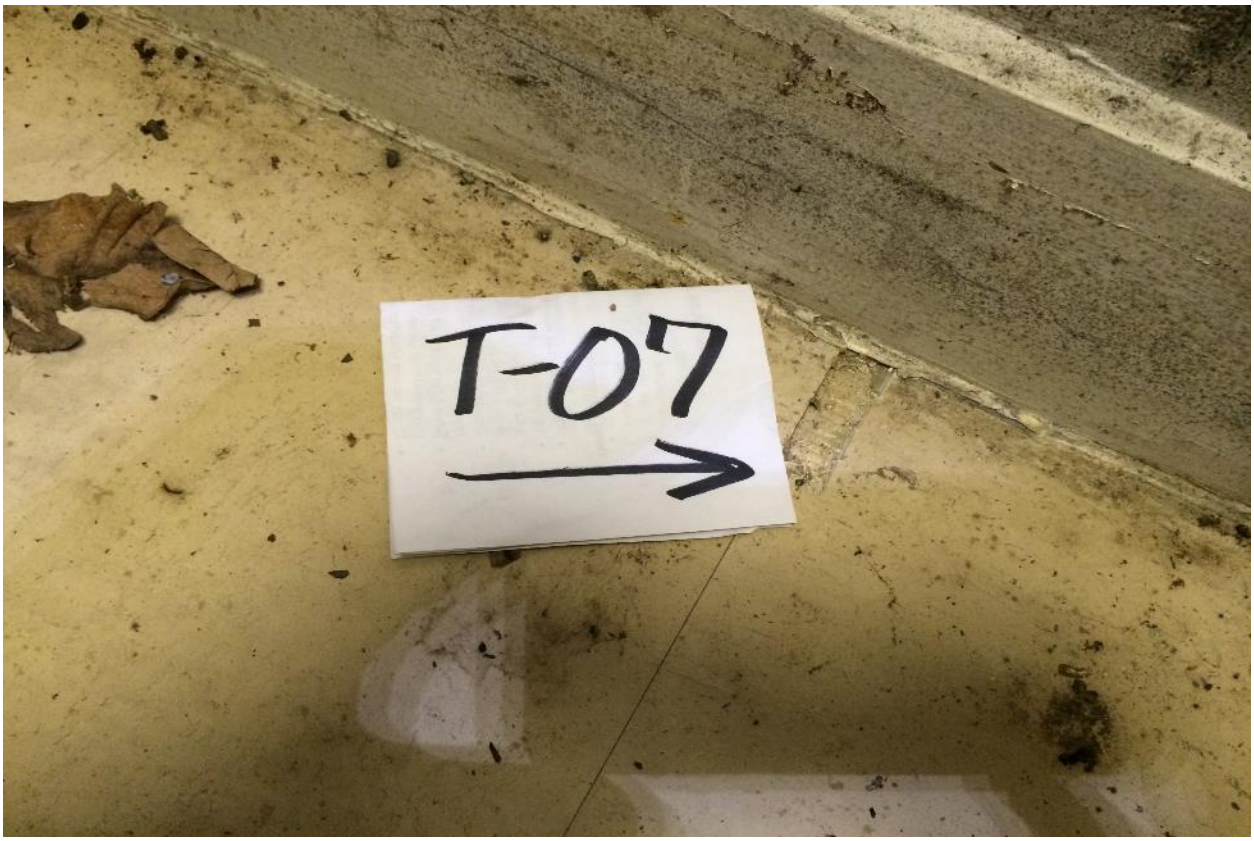


Plate 58: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample TS-07 collected from the Theatre Building hallway.

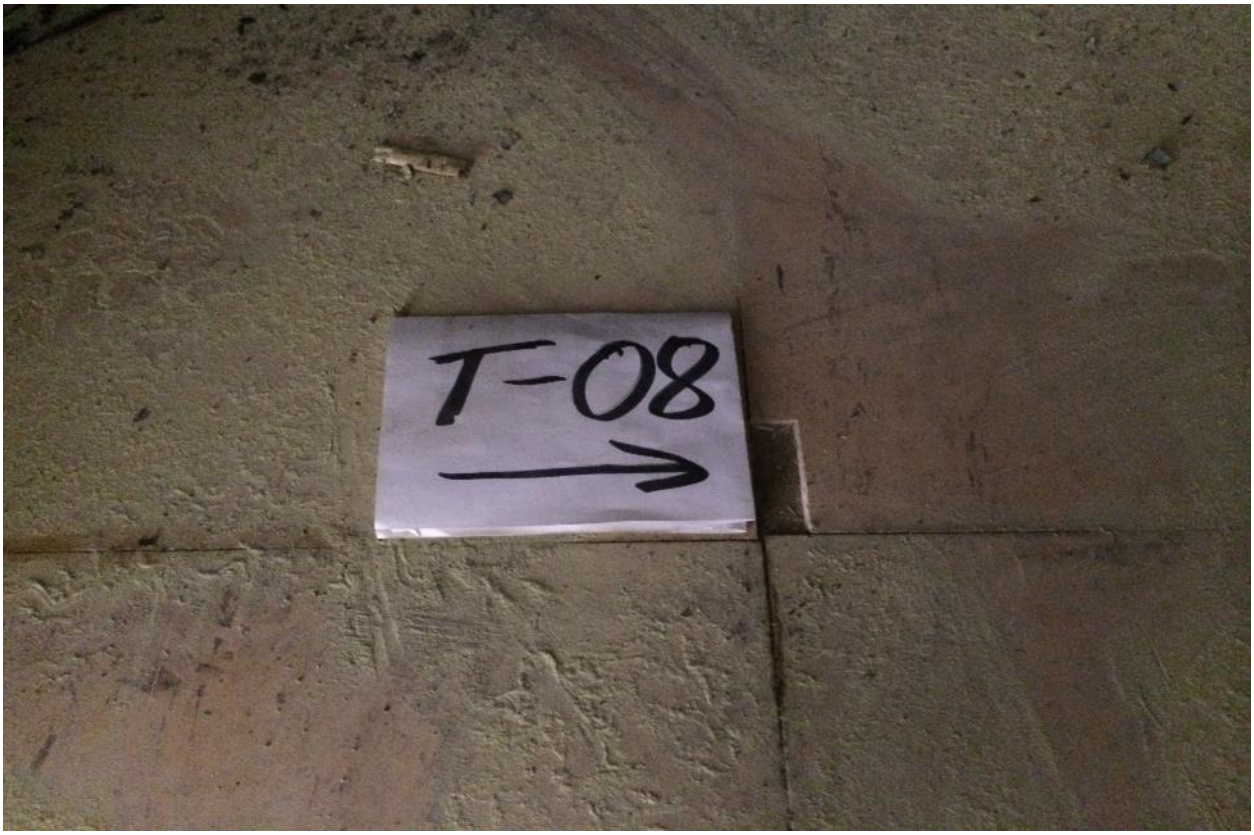


Plate 59: Laboratory analyses did not detect asbestos minerals within the beige floor tile or mastic sample TS-08 collected from the Theatre Building lobby storage room.

Plate 60: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample TS-09 collected from the Theatre Building lobby ceiling.

Plate 61: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-10 collected from the Theatre Building upstairs projection room ceiling.

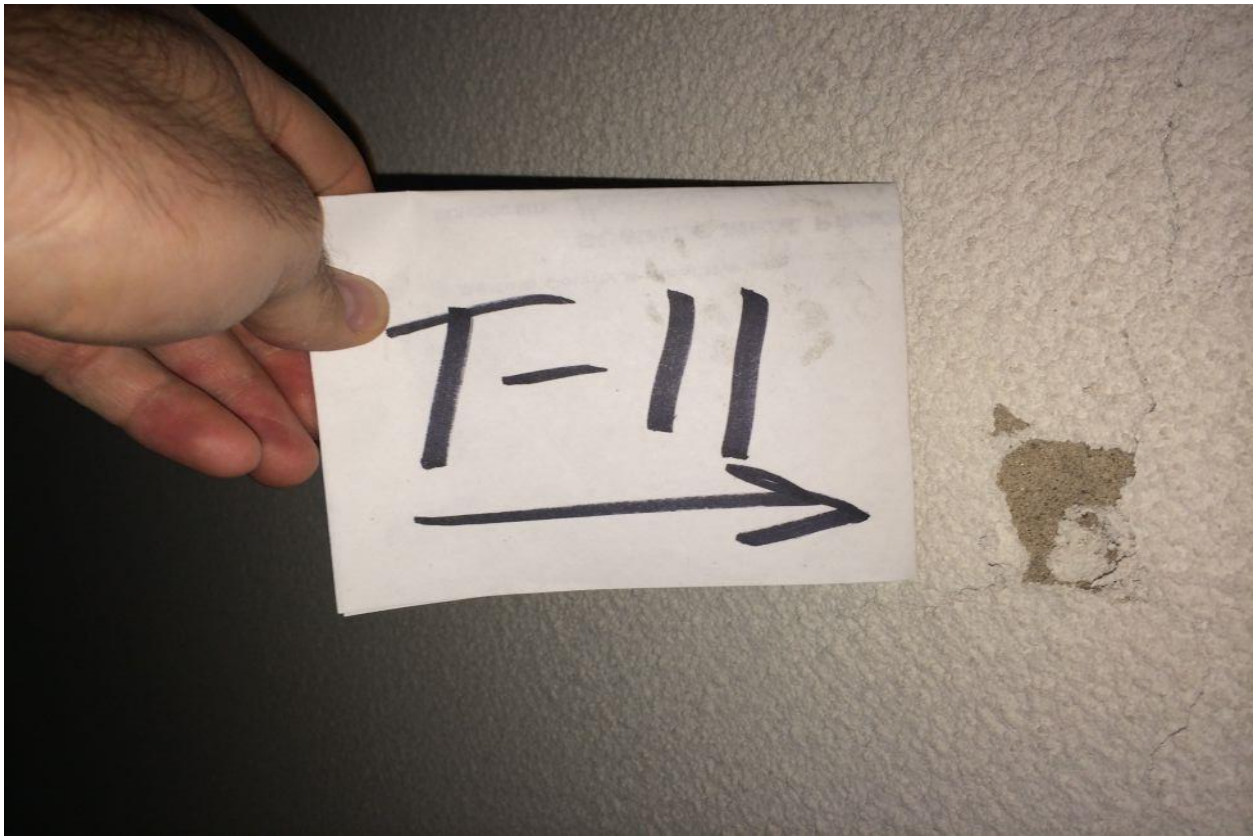


Plate 62: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-11 collected from the Theatre Building upstairs projection room ceiling.

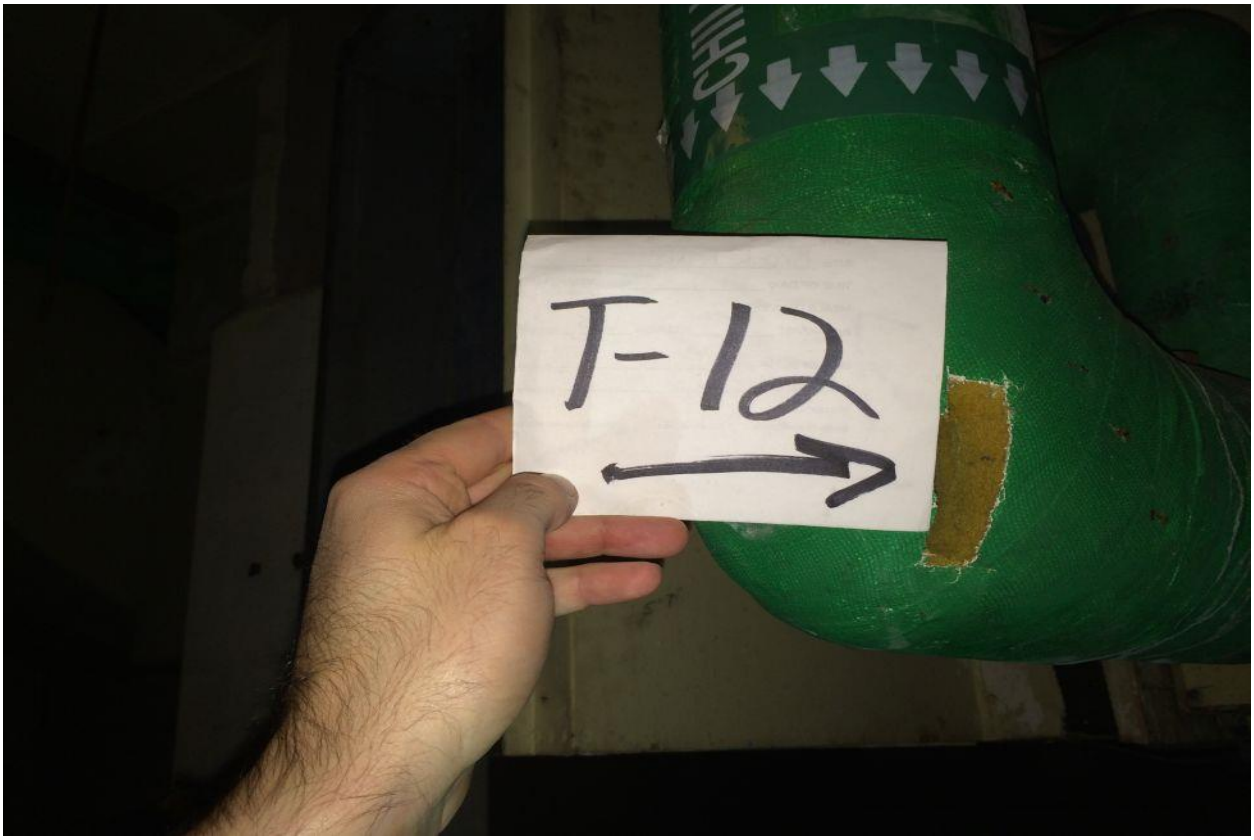


Plate 63: Laboratory analyses did not detect asbestos minerals within plumbing insulation sample TS-12 collected from the Theatre Building basement boiler room.

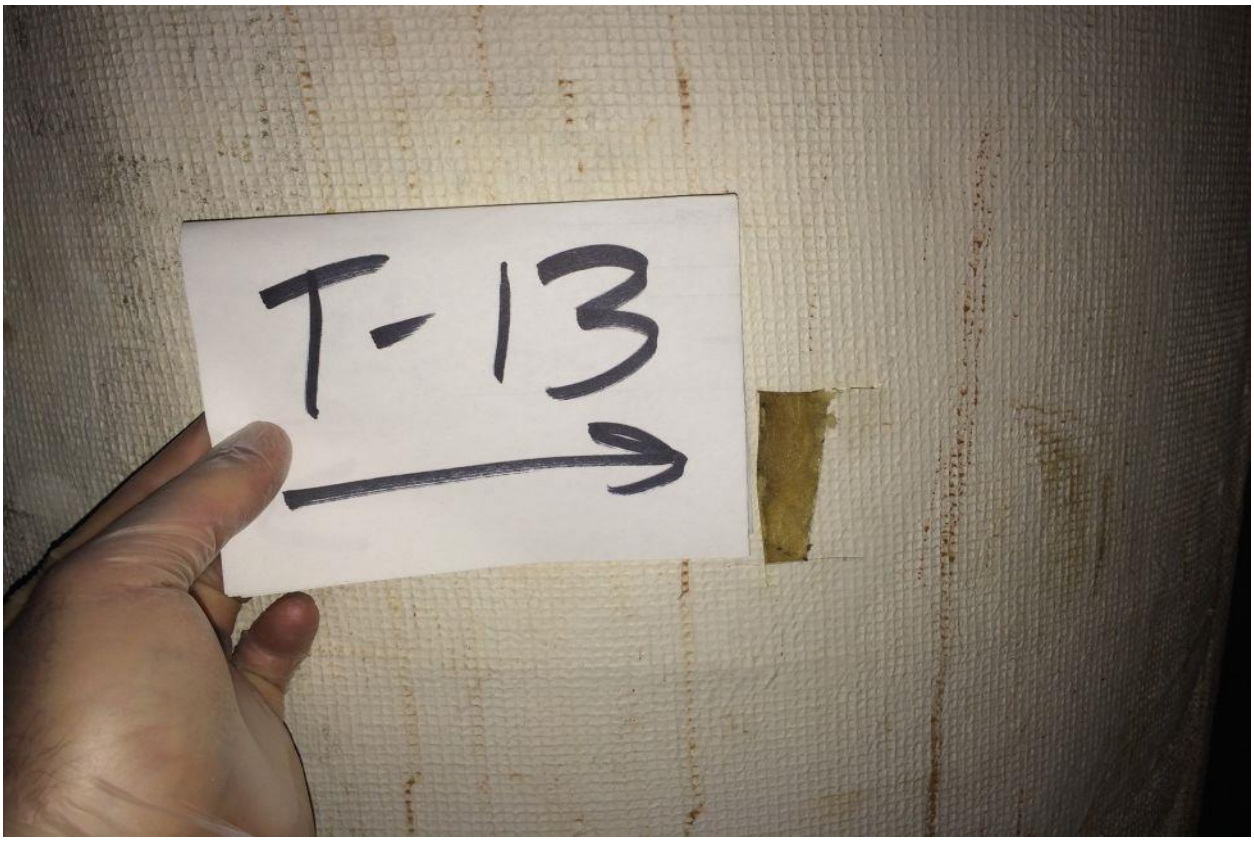


Plate 64: Laboratory analyses did not detect asbestos minerals within boiler wrap insulation sample TS-13 collected from the Theatre Building basement boiler room.

Plate 65: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-14 collected from the Theatre Building basement structural steel.

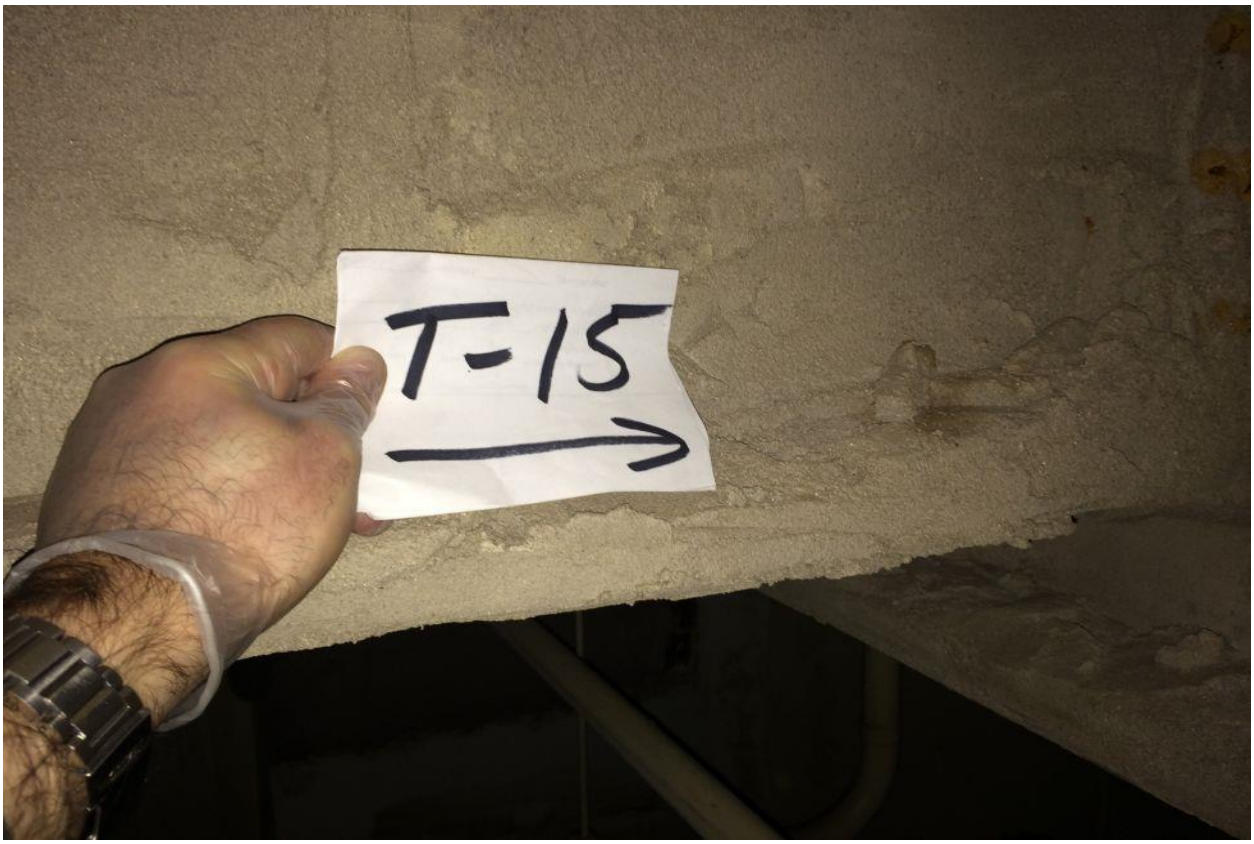


Plate 66: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-15 collected from the Theatre Building basement structural steel.

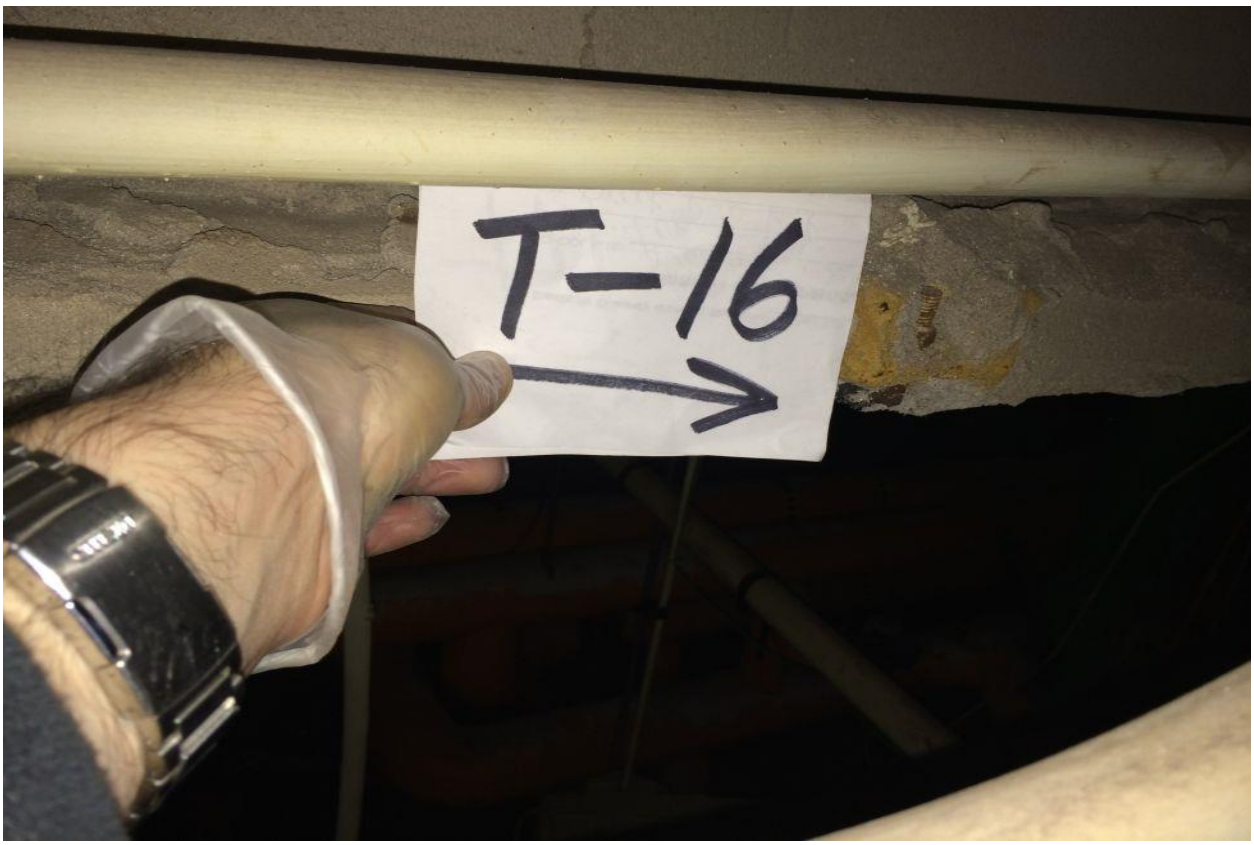


Plate 67: Laboratory analyses detected 20% chrysotile asbestos within spray on surfacing material sample TS-16 collected from the Theatre Building basement structural steel.

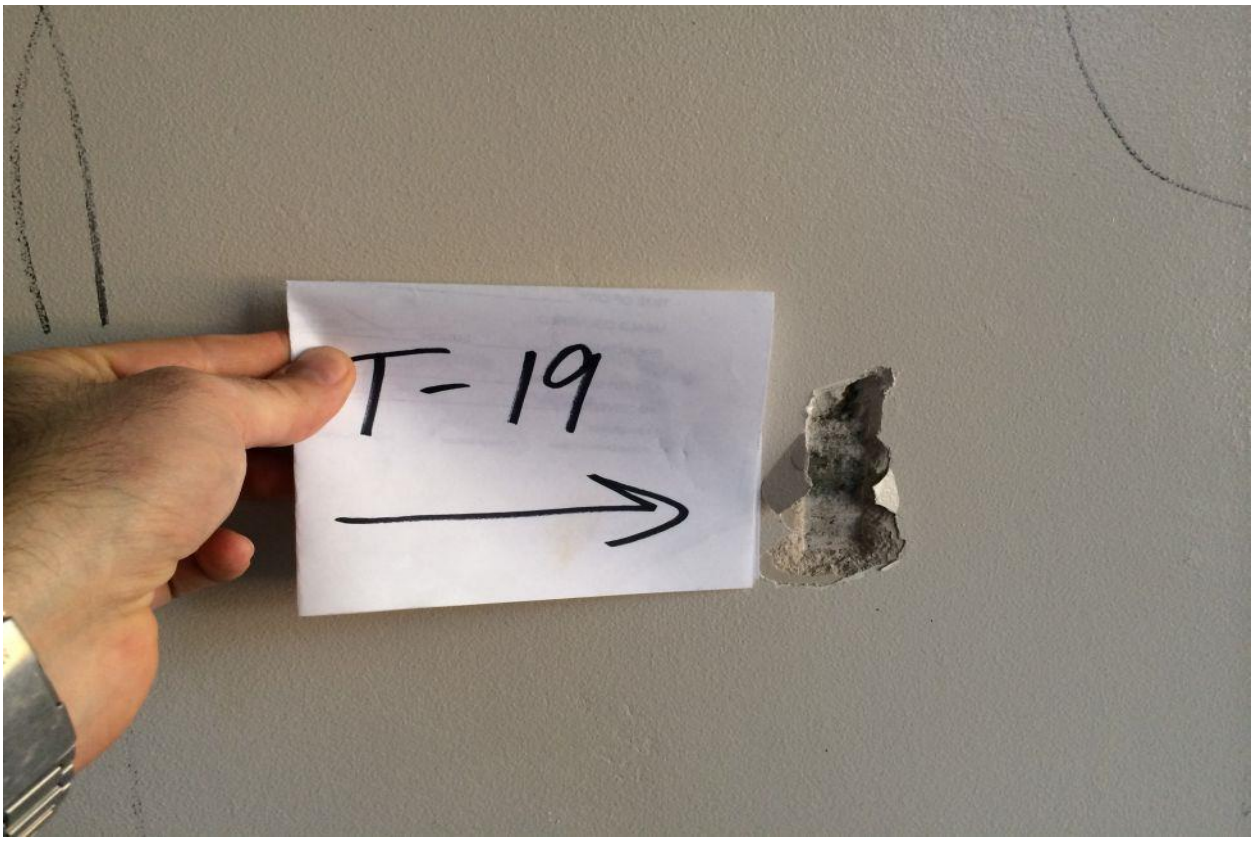


Plate 68: Laboratory analyses did not detect asbestos minerals within troweled on surfacing material sample TS-19 collected from the Theatre Building basement hall wall.

Plate 69: Laboratory analyses did not detect asbestos minerals within troweled on surfacing material sample TS-20 collected from the Theatre Building lobby wall.

Plate 70: Laboratory analyses did not detect asbestos minerals within asphalt roof sample TS-21 collected from the Theatre Building roof.

Plate 71: Laboratory analyses did not detect asbestos minerals within asphalt roof sample TS-22 collected from the Theatre Building roof.

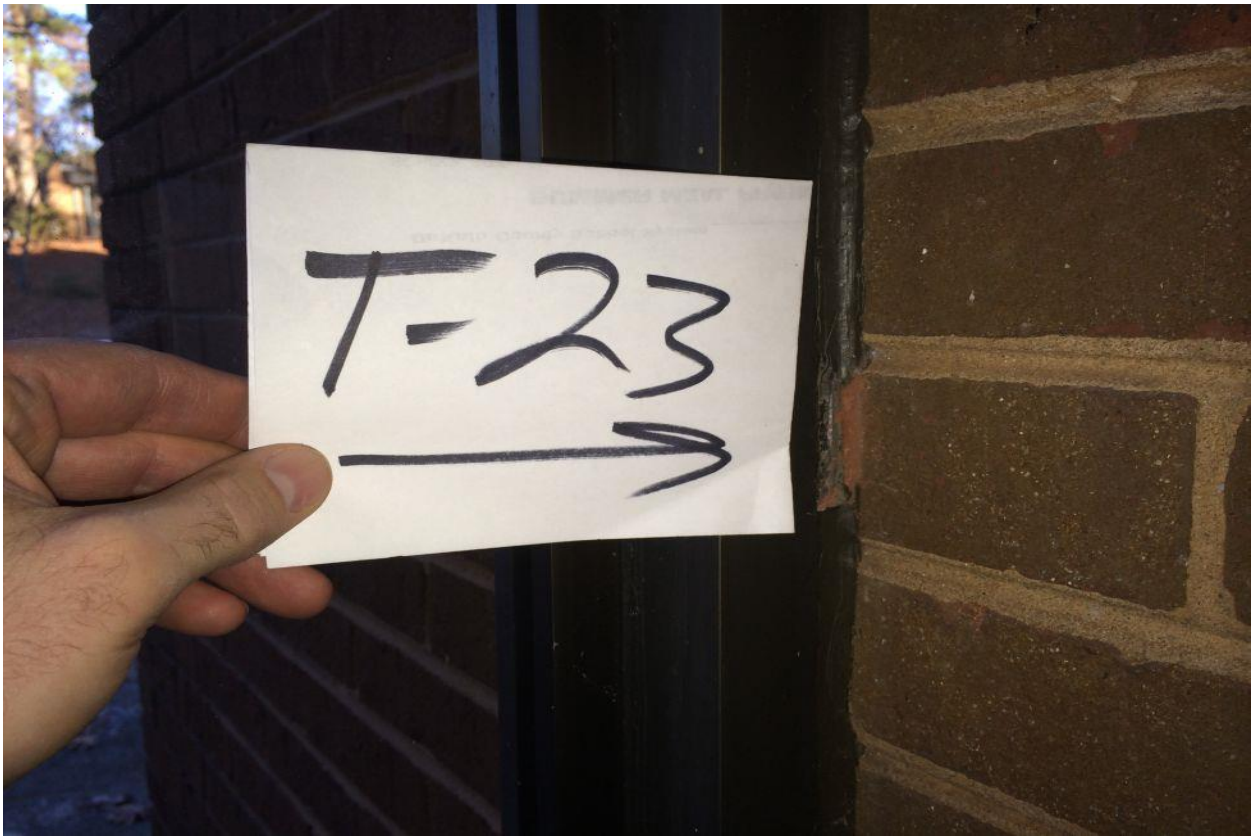


Plate 72: Laboratory analyses did not detect asbestos minerals within the window caulk sample TS-23 collected from the Theatre Building windows.

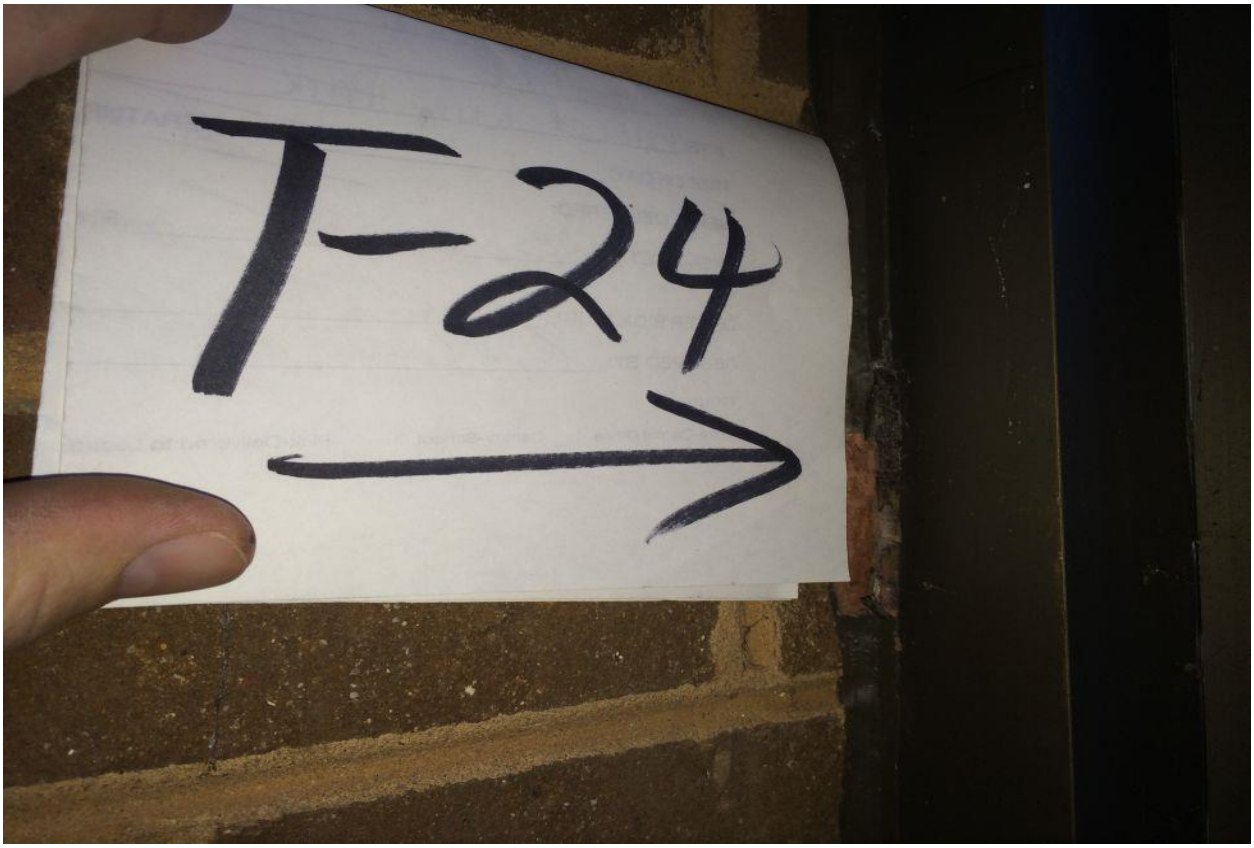


Plate 73: Laboratory analyses did not detect asbestos minerals within the window caulk sample TS-24 collected from the Theatre Building windows.

Appendix 3

Asbestos Analytical Laboratory Report

GEO HYDRO ENGINEERS

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

4-Mar-16

Client Name:	**Geo-Hydro Engineers, Inc.**	AES Job Number:	**1603075**
Project Name:	**BROOKRUN PARK THEATRE**	Project Number:	**JB 150114.30**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
T-01 Layer: 1	1603075-001A	North Side Lobby Entrance Skim Coat Overhang	ND	ND	ND	ND	ND	ND	
T-02 Layer: 1	1603075-002A	North Side Lobby Overhang Transite Tile	20	ND	ND	ND	ND	ND	Paint included as binder
T-03 Layer: 1	1603075-003A	South Side Lobby Entrance Overhang Skim Coat	ND	ND	ND	ND	ND	ND	
T-04 Layer: 1	1603075-004A	South Side Lobby Entrance Overhang Transite Tile	20	ND	ND	ND	ND	ND	Paint included as binder
T-05 Layer: 1	1603075-005A	Auditorium Ceiling Skim Coat	ND	ND	ND	ND	ND	ND	Paint included as binder
T-05 Layer: 2	1603075-005A	Auditorium Ceiling Skim Coat	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

4-Mar-16

Client Name:	**Geo-Hydro Engineers, Inc.**	AES Job Number:	**1603075**
Project Name:	**BROOKRUN PARK THEATRE**	Project Number:	**JB 150114.30**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
T-06 Layer: 1	1603075-006A	Auditorium Wall / Skim Coat	ND	ND	ND	ND	ND	ND	Paint included as binder
T-06 Layer: 2	1603075-006A	Auditorium Wall / Skim Coat	ND	ND	ND	ND	ND	ND	
T-07 Layer: 1	1603075-007A	Chapel / 12"x12" Ceiling Tile	ND	3	ND	ND	ND	ND	Paint included as binder
T-08 Layer: 1	1603075-008A	Gym / 12"x12" Ceiling Tile	ND	3	ND	ND	ND	ND	Paint included as binder
T-09 Layer: 1	1603075-009A	West Hallway / Skim Coat	ND	ND	ND	ND	ND	ND	Paint included as binder
T-09 Layer: 2	1603075-009A	West Hallway / Skim Coat	ND	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

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ANALYTICAL ENVIRONMENTAL SERVICES, INC.

Bulk Sample Summary Report

Lab Code 102082-0

4-Mar-16

Client Name:	**Geo-Hydro Engineers, Inc.**	AES Job Number:	**1603075**
Project Name:	**BROOKRUN PARK THEATRE**	Project Number:	**JB 150114.30**

Client ID	AES ID	Location	Asbestos Mineral Percentage						Comments
			CH	AM	CR	AN	TR	AC	
T-10 Layer: 1	1603075-010A	Auditorium / Glue under Carpet	2	ND	ND	ND	ND	ND	
T-11 Layer: 1	1603075-011A	Chapel / Glue under Carpet	2	ND	ND	ND	ND	ND	

Note: CH=chrysotile, AM=amosite, CR=crocidolite, AC=actinolite, TR=tremolite, AN=anthophylite

For comments on the samples, see the individual analysis sheets.

ND = None Detected

AES,Inc. is accredited by NIST's National Voluntary Laboratory Accreditation Program (NVLAP) for Polarized Light Microscopy (PLM) analysis, Lab Code 102082-0. All analyses performed in accordance with EPA "Interim Method for the Determination of Asbestos in Bulk Insulation Samples" (EPA 600/M4-82-020), 1982 as found in 40 CFR, Part 763, Appendix E to Subpart E and "Method for the Determination of Asbestos in Bulk Building Materials" (EPA/600/R-93/116), 1993.

These test results apply only to those samples actually tested, as submitted by the client. All percentages are reported by visually estimated volume.

PLM is not consistently reliable in detecting small concentrations of asbestos in floor tiles and similar nonfriable materials, quantitative TEM is currently the only method that can be used to determine conclusive asbestos content.

Microanalyst: Elena Ivanova

QC Analyst: Yelena Khanina

1603075
NC 3-1-16
~~1603067~~

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

3080 Presidential Drive, Atlanta, GA 30340-3704
(770) 457-8177 / Toll Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: GeoHydro Engineers, Inc. Phone: (770) 426-7100
Address: 1000 Cobb Place Blvd. Fax: ( )
City, State, Zip: Kennesaw, GA 30144 Project Name: Brook Run Park Theatre
Contact : jbaggett@geohydro.com Project Number: ~~5B130572.00~~ 150114.30
Sampler's Name: Jarrett Baggett Sampling Date: 2-29-16

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	T-01	North Side Lobby Entrance Overhang / Skim Coat	PLM	Standard		
2	T-02	North Side Lobby Overhang Transite Tile				
3	T-03	South Side Lobby Entrance Overhang / Skim Coat				
4	T-04	South Side Lobby Entrance Overhang / Transite Tile				
5	T-05	Auditorium Ceiling Skim Coat				
6	T-06	Auditorium Wall / Skim Coat				
7	T-07	Chapel / 12"x12" Ceiling Tile				
8	T-08	Gym / 12"x12" Ceiling Tile				
9	T-09	West Hallway / Skim Coat				
10	T-10	Auditorium / Glue Under Carpet				
11	T-11	Chapel / Glue Under Carpet				
12						
13						
14						
15						
16						
17						
18						
19						
20						

Relinquished by: Jarrett Baggett Date/Time: 3-1-16 / 1205
Received by: Date/Time: March-1-16 12:05
Relinquished by: Date/Time: March-1-16 1:25
Received by: Date/Time:

FOR LAB USE ONLY

Lab Recipient Nayle Date/Time: 3-1-16 1:25 Method of Shipment: Courier

EMSL Analytical, Inc
2205 Corporate Plaza Parkway SE, Suite 200, Smyrna, GA 30080
Phone/Fax: (770) 956-9150 / (770) 956-9181
http://www.EMSL.com atlantalab@emsl.com

EMSL Order:	071307074
CustomerID:	GEOH50
CustomerPO:	
ProjectID:	

Attn: **Jarrett Baggett**
Geo-Hydro Engineers, Inc.
1000 Cobb Place Blvd.
Ste. 290
Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/13/13 12:35 PM
Analysis Date:	12/18/2013
Collected:	12/12/2013

Project: **Brook Run Park/13057200**

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

			Non-Asbestos			Asbestos	
Sample	**Description**	**Appearance**	**% Fibrous**		**% Non-Fibrous**	**%**	**Type**
T-01-Floor Tile *071307074-0001*	Black 1x1' Tile Floor	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-01-Mastic *071307074-0001A*	Black 1x1' Tile Floor	Brown Non-Fibrous Homogeneous			95% Non-fibrous (other)	**5%**	**Chrysotile**
T-02-Floor Tile *071307074-0002*	Black 1x1' Tile Floor	Black Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-02-Glue *071307074-0002A*	Black 1x1' Tile Floor	Brown Non-Fibrous Homogeneous	2%	Cellulose	95% Non-fibrous (other)	**3%**	**Chrysotile**
T-03-Floor Tile *071307074-0003*	White 1x1' Floor Tile	White Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-03-Mastic *071307074-0003A*	White 1x1' Floor Tile	Brown Non-Fibrous Homogeneous	<1%	Cellulose	98% Non-fibrous (other)	**2%**	**Chrysotile**
T-04-Floor Tile *071307074-0004*	White 1x1' Floor Tile	White Non-Fibrous Homogeneous			100% Non-fibrous (other)		**None Detected**
T-04-Mastic *071307074-0004A*	White 1x1' Floor Tile	Brown Non-Fibrous Homogeneous	2%	Cellulose	96% Non-fibrous (other)	**2%**	**Chrysotile**

Analyst(s)

Lauren Kerber (16)
Victoria Panariello (15)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/18/2013 11:29:23

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Kennesaw, GA 30144

Phone:	(770) 426-7100
Fax:	(770) 426-5209
Received:	12/13/13 12:35 PM
Analysis Date:	12/18/2013
Collected:	12/12/2013

Project: **Brook Run Park/13057200**

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

			Non-Asbestos				Asbestos	
Sample	**Description**	**Appearance**	**%**	**Fibrous**	**%**	**Non-Fibrous**	**%**	**Type**
T-05 *071307074-0005*	White 2x2' Ceiling Tile	Gray Non-Fibrous Homogeneous	25%	Min. Wool	73%	Non-fibrous (other)	**2%**	**Amosite**
T-06 *071307074-0006*	White 2x2' Ceiling Tile	Gray Fibrous Homogeneous	25%	Min. Wool	73%	Non-fibrous (other)	**2%**	**Amosite**
		Inseparable paint / coating layer included in analysis						
T-07-Floor Tile *071307074-0007*	Beige 3x3' Floor Tile	Beige Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-07-Mastic *071307074-0007A*	Beige 3x3' Floor Tile	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-08-Floor Tile *071307074-0008*	Beige 3x3' Floor Tile	Beige Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-08-Glue *071307074-0008A*	Beige 3x3' Floor Tile	Tan Non-Fibrous Homogeneous			100%	Non-fibrous (other)		**None Detected**
T-09-Tape *071307074-0009*	Yellow TSI	Various Fibrous Homogeneous	10% 60%	Glass Cellulose	30%	Non-fibrous (other)		**None Detected**
T-09-Insulation *071307074-0009A*	Yellow TSI	Yellow Fibrous Homogeneous	90%	Min. Wool	10%	Non-fibrous (other)		**None Detected**

Analyst(s)

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Phone:	(770) 426-7100
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Analysis Date:	12/18/2013
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Project: **Brook Run Park/13057200**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
T-10 *071307074-0010*	White/Gray Spray On Ceiling	Gray/White Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-11 *071307074-0011*	White/Gray Spray On Ceiling	Gray/White Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-12 *071307074-0012*	Yellow Chill Water Line TSI	White/Yellow Fibrous Homogeneous	80% Min. Wool 10% Glass	10% Non-fibrous (other)	**None Detected**
T-13 *071307074-0013*	Yellow Boiler Wrap	White/Yellow Fibrous Homogeneous	10% Synthetic 80% Min. Wool	10% Non-fibrous (other)	**None Detected**
T-14 *071307074-0014*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-15 *071307074-0015*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-16 *071307074-0016*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-17 *071307074-0017*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**

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Received:	12/13/13 12:35 PM
Analysis Date:	12/18/2013
Collected:	12/12/2013

Project: **Brook Run Park/13057200**

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

			Non-Asbestos		Asbestos
Sample	**Description**	**Appearance**	**% Fibrous**	**% Non-Fibrous**	**% Type**
T-18 *071307074-0018*	Gray, Spray On Fireproofing	Gray Fibrous Homogeneous		80% Non-fibrous (other)	**20% Chrysotile**
T-19 *071307074-0019*	White Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other) Inseparable paint / coating layer included in analysis	**None Detected**
T-20 *071307074-0020*	White Plaster Wall	Gray Non-Fibrous Homogeneous		100% Non-fibrous (other) Inseparable paint / coating layer included in analysis	**None Detected**
T-21 *071307074-0021*	BlackAsphalt Roof	Black Fibrous Heterogeneous	3% Cellulose 10% Glass 5% Synthetic This is a composite analysis of inseparable roofing layers.	82% Non-fibrous (other)	**None Detected**
T-22 *071307074-0022*	BlackAsphalt Roof	Black Fibrous Heterogeneous	15% Cellulose 10% Glass 5% Synthetic This is a composite analysis of inseparable roofing layers.	70% Non-fibrous (other)	**None Detected**
T-23 *071307074-0023*	Brown Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**
T-24 *071307074-0024*	Brown Window Caulk	Brown Non-Fibrous Homogeneous		100% Non-fibrous (other)	**None Detected**

Analyst(s)

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Victoria Panariello (15)

Victoria Panariello, Asbestos Lab Manager
or other approved signatory

Initial report from 12/18/2013 11:29:23

071307074

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*): 071307074

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

EMSL ANALYTICAL, INC.
2205 CORPORATE PLAZA PKWY
SUITE 200
SMYRNA, GA 30080
PHONE: (770) 956-9150
FAX: (770) 956-9181

Company: Geo-Hydro Engineers, Inc.	EMSL-Bill to: ☑ Same ☐ Different If Bill to is Different note instructions in Comments**
Street: 1000 Cobb Place Blvd, Suite 290	*Third Party Billing requires written authorization from third party*
City: Kennesaw State/Province: GA	Zip/Postal Code: 30144 Country: US
Report To (Name): Jarrett Daggett	Telephone #: 770426-7100 x107
Email Address: jbaggett@geohydro.com	Fax #: 770-426-3209 Purchase Order:
Project Name/Number: Brook Run Park / 1305720	Please Provide Results: ☐ Fax ☑ Email
U.S. State Samples Taken:	Connecticut Samples: ☐ Commercial ☐ Residential

Turnaround Time (TAT) Options* – Please Check

☐ 3 Hour ☐ 6 Hour ☐ 24 Hour ☐ 48 Hour ☑ 72 Hour ☐ 96 Hour ☐ 1 Week ☐ 2 Week

*For TEM Air 3 hr through 6 hr, please call ahead to schedule. *There is a premium charge for 3 Hour TEM AHERA or EPA Level II TAT. You will be asked to sign an authorization form for this service. Analysis completed in accordance with EMSL's Terms and Conditions located in the Analytical Price Guide.

PCM - Air ☐ Check if samples are from NY
- ☐ NIOSH 7400
- ☐ w/ OSHA 8hr. TWA

PLM - Bulk (reporting limit)
- ☑ PLM EPA 600/R-93/116 (<1%)
- ☐ PLM EPA NOB (<1%)

Point Count
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)

Point Count w/Gravimetric
- ☐ 400 (<0.25%) ☐ 1000 (<0.1%)
- ☐ NYS 198.1 (friable in NY)
- ☐ NYS 198.6 NOB (non-friable-NY)
- ☐ NIOSH 9002 (<1%)

TEM – Air ☐ **4-4.5hr TAT (AHERA only)**
- ☐ AHERA 40 CFR, Part 763
- ☐ NIOSH 7402
- ☐ EPA Level II
- ☐ ISO 10312

TEM - Bulk
- ☐ TEM EPA NOB
- ☐ NYS NOB 198.4 (non-friable-NY)
- ☐ Chatfield SOP
- ☐ TEM Mass Analysis-EPA 600 sec. 2.5

TEM – Water: EPA 100.2
- Fibers >10µm ☐ Waste ☐ Drinking
- All Fiber Sizes ☐ Waste ☐ Drinking

TEM- Dust
- ☐ Microvac - ASTM D 5755
- ☐ Wipe - ASTM D6480
- ☐ Carpet Sonication (EPA 600/J-93/167)

Soil/Rock/Vermiculite
- ☐ PLM CARB 435 - A (0.25% sensitivity)
- ☐ PLM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - B (0.1% sensitivity)
- ☐ TEM CARB 435 - C (0.01% sensitivity)
- ☐ TEM Qual. via Filtration Technique
- ☐ TEM Qual. via Drop-Mount Technique

Other:
- ☐

☐ **Check For Positive Stop – Clearly Identify Homogenous Group** **Filter Pore Size (Air Samples):** ☐ 0.8µm ☐ 0.45µm

Samplers Name: Jarrett Daggett **Samplers Signature:**

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
T-01	Black 1x1' tile Floor	Bulk	12-12-13/1335
T-02	Black 1x1' tile Floor	Bulk	12-12-13/1336
T-03	White 1x1' Floor tile	Bulk	12-12-13/1338
T-04	White 1x1' Floor tile	Bulk	12-12-13/1340
T-05	White 2x2' ceiling tile	Bulk	12-12-13/1345
T-06	White 2x2' ceiling tile	Bulk	12-12-13/1347
T-07	Beige 3x3' Floor tile	Bulk	12-12-13/1351
T-08	Beige 3x3' Floor tile	Bulk	12-12-13/1355

Client Sample # (s): **Total # of Samples:** 24

Relinquished (Client): Jarrett Daggett **Date:** 12-13-13 **Time:** 1235

Received (Lab): **Date:** 12/13/13 **Time:** 1235

Comments/Special Instructions:

071307074

EMSL ANALYTICAL, INC.
LABORATORY • PRODUCTS • TRAINING

Asbestos Chain of Custody

EMSL Order Number (*Lab Use Only*):

071307074

EMSL ANALYTICAL, INC.
2205 CORPORATE PLAZA PKWY
SUITE 200
SMYRNA, GA 30080
PHONE: (770) 956-9150
FAX: (770) 956-9181

Additional Pages of the Chain of Custody are only necessary if needed for additional sample information

Sample #	Sample Description	Volume/Area (Air) HA # (Bulk)	Date/Time Sampled
T-09	Yellow TSI	Bulk	12-12-13/1405
T-10	White/Gray Spray on Ceiling	Bulk	12-12-13/1425
T-11	White/Gray Spray on Ceiling	Bulk	12-12-13/1430
T-12	Yellow, Chill Water Line TSI	Bulk	12-12-13/1450
T-13	Yellow Boiler Wrap	Bulk	12-12-13/1455
T-14	Gray, Spray on Fireproofing	Bulk	12-12-13/1459
T-15	Gray Spray on Fireproofing	Bulk	12-12-13/1510
T-16	Gray Spray on Fireproofing	Bulk	12-12-13/1515
T-17	Gray Spray on Fireproofing	Bulk	12-12-13/1525
T-18	Gray Spray on Fireproofing	Bulk	12-12-13/1540
T-19	White Plaster Wall	Bulk	12-12-13/1545
T-20	White Plaster Wall	Bulk	12-12-13/1555
T-21	Black Asphalt Roof	Bulk	12-12-13/1605
T-22	Black Asphalt Roof	Bulk	12-12-13/1608
T-23	Brown Window Caulk	Bulk	12-12-13/1615
T-24	Brown Window Caulk	Bulk	12-12-13/1620

***Comments/Special Instructions:**

Appendix 4

Asbestos Inspector Certification

GEO HYDRO ENGINEERS

The Environmental Institute

Jarrett Baggett

Social Security Number - XXX-XX-4730

Geo-Hydro Engineers, Inc. - 1000 Cobb Place Blvd., Suite 290 - Kennesaw, Georgia 30144

Has completed coursework and satisfactorily passed
an examination that meets all criteria required for
EPA/AHERA/ASHARA (TSCA Title II) Approved Reaccreditation

Asbestos in Buildings: Inspector Refresher

October 20, 2015
Course Date

15229
Certificate Number

October 20, 2015
Examination Date

October 19, 2016
Expiration Date

David W. Hogue - Principal Instructor / Training Manager

Rachel G. McCain - Exam Administrator

(Approved by the ABIH Certification Maintenance Committee for 1/2 CM point - Approval #11-577)

(Florida Provider Registration Number FL49-0001342 - Course #FL49-0002805)

TEI - 1841 West Oak Parkway, Suite F - Marietta, Georgia 30062 - (770) 427-3600 - www.tei-atl.com

MATRIX ENGINEERING GROUP
Geotechnical, Environmental, and Construction Materials Consultants

February 5, 1998

Mr. Bob Evans
Dekalb County Purchasing – Roads and Drainage
4305-4307 Memorial Drive
Decatur, Georgia 30032

Subject: ***Environmental Study - Phase I and Limited Sampling and Testing***
Brook Run Facility, Dekalb County, Georgia
Matrix Engineering Group Project Number MEG 97141.6

Dear Mr. Evans:

Matrix Engineering Group has completed an Environmental Study, and a Limited Sampling and Testing program at the Brook Run facility. This work was performed per your verbal authorization on January 8, 1998 and in accordance with our proposal dated December 11, 1997. The Environmental Study included the following tasks:

- Environmental Study -Phase I.
- Limited soil and groundwater sampling and testing at two underground storage tank facilities.
- Limited Sampling and Testing of suspect Asbestos Contaminated Materials.
- Limited Sampling and Testing of suspect Lead presence in water and paints.

The objective of this work was to perform a preliminary assessment of the potential environmental risks associated with the presence of hazardous materials at the subject site. It is important to point out that due to the presence of 21 structures, the sampling program was preliminary in nature and covered only the accessible areas. It is intended to provide preliminary information of whether there are obvious hazardous materials present at the subject site and to enable us to provide meaningful recommendations for further investigation. Additional sampling and testing, if required, is addressed in the findings and recommendation at the end of each report.

Matrix Engineering Group appreciates the opportunity of working with you on this important project and looks forward to our continued association. If you have any questions concerning this report, please do not hesitate to contact us.

Very truly yours,

MATRIX ENGINEERING GROUP

Amin A. Tomeh, P.E.
Project Engineer

Sam Al-Yateem, P.E.
Chief Engineer

GEORGIA REGISTERED No. 19197 PROFESSIONAL ENGINEER OSAMA SAMIR AL-YATEEM

AT/SA/lt

3300 BUCKEYE ROAD, SUITE 525 ● ATLANTA, GEORGIA 30341
TEL. (770) 455-1780, FAX (770) 455-1769

EXECUTIVE SUMMARY

An Environmental Study was completed for the Brook Run facility located at 4770 North Peachtree Road, in Dunwoody, Dekalb County, Georgia. The objective of this study was to evaluate the potential environmental risks associated with the presence of hazardous materials at the subject site. The scope of work included a site reconnaissance, a record research of the available information at the government and regulatory agencies, and performing limited sampling and testing of suspect materials in order to determine the potential presence of petroleum products, lead, and asbestos. The Environmental Study is presented in four separate reports, and are summarized as follows:

REPORT NO. 1:
The State of Georgia owns the subject site. It is currently vacant, but has been used as a retardation center by the State for over 30 years. There are 21 structures on the site; the majority of which were constructed between 1966 and 1968. The remainder of the site is undeveloped and is lightly to heavily wooded. The site appears to have not been improved before 1964. The records revealed that there are five sites, within a one-mile radius, reported to possess, store, or handle materials that are regulated by the U.S. EPA and Georgia EPD. Based on a review of the available records and our evaluation, it is our opinion that the potential contamination to the subject site, from off-site sources, is unlikely. The Environmental Study – Phase I is presented in Report No. 1.

REPORT NO. 2:
Two underground storage tank (UST) facilities are located within the subject site. One facility has four UST's located at the power plant and were used to store diesel oil #2 for heating purposes. The other facility has two UST's located at the transportation building and were used to store gasoline. Limited soil and groundwater samples were collected and tested for petroleum products of TPH, PAH and BTEX. The test results showed that petroleum products were below the detection levels. The tanks were installed in 1968 and therefore, leaks of petroleum products are possible. Mr. Garry Jackson of the State indicated that the UST's are scheduled for removal by the State. Therefore, We strongly recommend that Dekalb County representatives monitor the removal of the UST's to ensure that it is performed in accordance with the Georgia EPD requirements. The findings and recommendations are provided in Report No. 2.

REPORT NO. 3:
Limited sampling and testing of asbestos-containing materials was performed in order to determine its potential presence. Samples were taken from accessible locations during our site visits. The test results revealed that asbestos was present in the ceiling and floor tiles, glue of the floor tiles at Building #15, and in the ceiling tiles at Building #16. Recommendations for further testing are provided in Report No. 3.

REPORT NO. 4:
Limited sampling and testing was performed to determine potential lead presence in drinking water and paints. Paint samples were collected from walls, windows, equipment, doors, and other surfaces. The test results showed that the water samples were free of lead. However, lead in the paint samples at several location was found to be above the action level of 0.5% by weight as regulated by EPA and OSHA. Recommendations for further testing are provided in Report No. 4.

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- Figure 1
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1.0 INTRODUCTION

Matrix Engineering Group performed limited asbestos sampling as part of the Environmental Screening Assessment conducted at the Brook Run Facility, 4770 North Peachtree Road, Dekalb County, Georgia. The Brook Run Facility consists of 21 Structures, and 17 of them were constructed between 1966 and 1968. The other four were reportedly constructed in the 1980's. The following report summarizes the results of the limited inspection, which was performed on January 26, 1998.

Suspect materials were identified during the walkthrough inspection as part of the Environmental Study. Suspect materials at this facility include, but are not limited to, resilient floor tiles and associated mastic, ceiling tiles, pipe insulation (observed in mechanical buildings),drywall, drywall joint compound, plaster, roofing materials (felts, flashing), acoustical plaster, asbestos cement products, asbestos siding shingles, electrical conduits, clapboard, thermal system insulation, and miscellaneous materials.

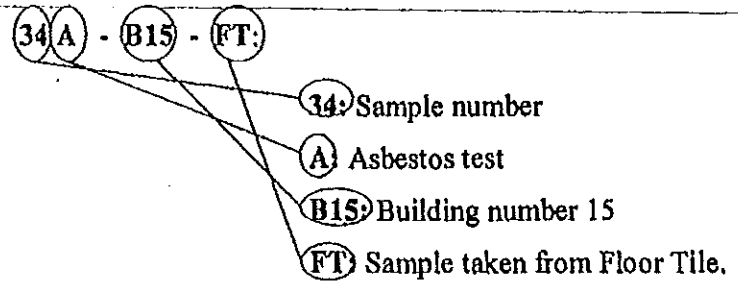
2.0 SAMPLING METHODOLOGY

Both EPA and OSHA define asbestos-containing materials to be materials which contain greater than 1% asbestos. A total of 38 bulk samples were collected and analyzed as part of this limited sampling.

A walkthrough inspection of the facility appeared to confirm verbal reports that the building owner had previously abated certain amounts of asbestos-containing materials from exposed areas and mechanical rooms. No suspect surfacing or thermal system insulation was observed during the walkthrough. The walkthrough inspection and sampling was performed in the accessible areas of the buildings. No inspection was made inside chases, above ceilings, under floors or in other inaccessible locations.

Bulk Samples were collected and transported to the analytical laboratory with a chain-of-custody form, which was completed at each transfer. The AES laboratory in Atlanta, Georgia analyzed the samples by polarized light microscopy, following the United States Environmental Protection Agency Interim Method for the Determination of Asbestos in Bulk Insulation Samples, EPA-600/R-93/116. The sample type, location, and date were recorded on the Chain of Custody record, copies of which are presented in Appendix A of this report. The test samples were labeled in a manner that includes the building number, the type of test performed, and the type of material sampled. The following sample number is used to provide the reader with a quick reference:

The following sample number designation is used to provide the reader with a quick reference:



The building numbers are provided in Figure 1 in the Appendix of this report. Additional sample descriptions are provided in the Chain of Custody records. The following sample designations were used:

DP: Door Paint	PI: Pipe Insulation	CT: Ceiling Tile
TI: Tank Insulation	FT: Floor Carpet	GP: Gypsum material
WP: Wall Paint	DI: Duct Insulation	CK: Caulking material
RS: Roof Shingles	RF: Roof Felt	HI: Heating Insulation
WG: Wall Gypsum	AR: Asphalt Shingles	

3.0 PERTINENT REGULATIONS:

To date, two federal agencies have been responsible for generating most of the regulations for asbestos control. These two agencies are the U. S. Environmental Protection Agency (EPA) and the Occupational Safety and Health Administration (OSHA).

Other federal agencies promulgating asbestos regulations include the Department of Transportation, regarding transport of asbestos, and Consumer Product Safety Commission, responsible for banning some asbestos products.

Those regulations which specifically apply to this facility, and the inspection, management and proper handling of asbestos-containing materials at Brook Run, include the following:

- OSHA Asbestos Standards
- EPA National Emission Standards for Hazardous Air Pollutants (NESHAPS)
- Asbestos Hazard Emergency Response Act (AHERA) and ASHARA amendment to AHERA

OSHA published revised asbestos standards in the August 12, 1994 Federal Register, and three standards were issued:

1) 29 CFR 1926.1101 for the construction industry, replacing 1926.58,
2) 29 CFR 1910.1001 covering general industry,
3) 29 CFR 1915.1001 covering shipyard workers.

The Brook Run Facilities are covered under both 1910.1001 and 1926.1101. The construction standard changed substantially in the 1995 revised standard, and establishes four classes of asbestos work, ranging from remediation to general maintenance and housekeeping activities. Specific engineering controls and work practices have been established for each category of asbestos work.

Of particular interest to Brook Run, the new OSHA standard requires that certain materials be presumed to be asbestos-containing unless sampling, by an accredited inspector following AHERA protocol, proves otherwise. In summary, all thermal system insulation and surfacing materials in buildings constructed no later than 1980 must be presumed to be asbestos-containing. All floor coverings installed no later than 1980, as well as several miscellaneous suspect materials, must also be presumed to be asbestos-containing until proven otherwise. The inspection and sampling conducted as part of the Brook Run Assessment does not satisfy the requirements for sampling as required by this standard.

EPA NESHAPS, as revised on November 20, 1990, requires that buildings be inspected for asbestos prior to renovations or demolitions. Notifications of activity must be made 10 days in advance of any work that may disturb asbestos-containing materials, or prior to any demolition. The requirement for maintaining abated material wet, container labeling and waste shipment records during abatement activities are covered under this regulation. The ASHARA amendment to AHERA requires that any inspection for asbestos be performed by an AHERA accredited inspector.

The AHERA regulation (40 CFR 763) was originally promulgated to regulate asbestos activities in school buildings. The inspection and sampling protocols detailed in this regulation have been referenced in the OSHA Standard as the only acceptable method for determining whether a material is non-asbestos containing. Though the AHERA regulation applies to schools, the inspection and sampling protocols must be utilized at Brook Run in order to comply with OSHA.

The State of Georgia, Department of Natural Resources, Environmental Protection Division is responsible for enforcing EPA NESHAPS regulations, and also has specific licensing requirements for those conducting asbestos abatement of regulated asbestos-containing materials (RACM), as defined by NESHAPS. Georgia does not regulate non-friable materials. They do not regulate the conduct of asbestos inspections, have specific requirements for asbestos inspections, or require specific certifications or licensing for asbestos inspectors.

4.0 ANALYTCAL TEST RESULTS

The analytical test results showed that the Asbestos presence for all the samples were below the detection levels, except for the following samples:

Sample Number	Location	Material Description Type and Percent Asbestos	
34A-B15-FT	Building 15/left entrance	Floor Tile	< 1% Chrysotile
34A-B15-FT	Building 15/left entrance	Glue	1%-2% Chrysotile
35A-B15-CT	Building 15/right wing	Ceiling Tile	1%-2% Amosite
37A-B16-CT	Building 16/hallway	Ceiling Tile	3% Amosite

5.0 CONCLUSIONS AND RECOMMENDATIONS

The limited inspection and sampling has revealed the presence of asbestos-containing materials, which include floor tiles, mastic and ceiling tiles. Other materials may be present. In addition, design drawings prepared by Jones and Associates, dated 1966, were reviewed and indicate that asbestos-containing materials were specified in several buildings, including the Power Plant, Administration Building, Cottages, Theater, and therapy unit (Cherry Tree Building). Asbestos board for facias and soffits were specified. Confirmatory sampling was not conducted due to lack of accessibility.

Though renovations have occurred within recent years, there was no documentation available regarding asbestos abatement. Without specific documentation, materials are considered to be suspect-asbestos containing until sampling proves otherwise. Compliance with OSHA and NESHAPS requires that materials be assumed to contain asbestos until AHERA level inspections and sampling prove otherwise. Any repair, renovation or demolition work must comply with these regulations. The initial step toward compliance would include an AHERA level survey of each building to specifically identify what is and is not asbestos-containing.

The attached documents complete this report.

APPENDIX A

SITE LOCATION & BUILDING LAYOUT
LABORATORY TEST RESULTS
CHAIN OF CUSTODY RECORDS

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

BULK SAMPLE SUMMARY

Company Name: Matrix Engineering Group
Project Name : Brook Run / 97141.6
Microanalyst : Arkadiy Gendlin

AES Job # B6755
Date Received 01/22/98
Date Analyzed 01/26/98

CLIENT I.D.	AES LAB NUMBER	SAMPLE LOCATION	% OF ASBESTOS	TYPE OF ASBESTOS	CHRY IN BITUMEN
3A-B1-TI	103215	Bldg. 1 / Laundry Rm. / Tank Insulation	ND		
4A-B1-TI	103216	Bldg. 1 / Tank Insulation	ND		
5A-B1-FT	103217	Bldg. 1 / 2nd Flr / Laundry Rm. / H 204B	ND		
6A-B1-FC	103218	Bldg. 1 / 2nd Flr / Storage Next to Elevator C	ND		
7A-B1-CT	103219	Bldg. 1 / 2nd Flr / Ceiling Tile Front of F201	ND		
8A-B1-FC	103220	Bldg. 1 / 2nd Flr / Floor Tile Rm. A 212	ND		
9A-B18-PI	103221	Bldg. 18 / Mech. Rm. / Pipe Insulation	ND		
10A-B3-PI	103222	Bldg. 3 / Mech. Rm. / Pipe Insulation	ND		
11A-B3-CK	103223	Bldg. 3 / Hallway / Caulking Material	ND		
12A-B4-TI	103224	Bldg. 4 / Mech. Rm. / Pipe Insulation	ND		
13A-B4-FT	103225	Bldg. 4 / Floor Tile / Near Rm. 103	ND		
14A-B4-GP	103226	Bldg. 4 / Gypsum Rm. 231	ND		
15A-B8-FC	103227	Bldg. 8 / Flr. Carpet Rm. 105	ND		
16A-B8-DI	103228	Bldg. 8 / Duct Ins. / Mech. Rm. Near 211	ND		

ND - None Detected

See actual test reports for samples 1A-B9-FT and 2A-B9-CT

Approved By: Mehmet Yalcinoz Date: 1/27/98

According to EPA Method 600/R-93/116. "Method for Determination of Asbestos in Bulk Building Material."

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 35A-B15-CT AES LAB NO : 103291 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION GRAY SOFT FIBROUS TO SILTY.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE	1 - 2	BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	75	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	23 - 24
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 36A-B16-FT AES LAB NO : 103296 AES JOB NO : B6761

SAMPLE LOCATION :

SAMPLE - DESCRIPTION BEIGE SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	90
CELLULOSE	1	GLUE	3
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 37A-B16-CT AES LAB NO : 103297 AES JOB NO : B6761

SAMPLE LOCATION :

SAMPLE - DESCRIPTION GRAY SOFT FIBROUS TO SILTY WITH PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE	3	BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	85	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	12
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gendlin

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 38A-B16-CW AES LAB NO : 103298 AES JOB NO : B6761

SAMPLE LOCATION :

SAMPLE - DESCRIPTION LAYERED: 1) LIGHT GRAY SEMI-HARD SILTY WITH FIBERS, MICA & PAINT
2) LIGHT BROWN SEMI-HARD PARTLY GRANULAR WITH FIBERS & MICA.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	3
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	20
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	1	GLUE	
ANIMAL HAIR		BINDERS	75
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

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2.0 SAMPLING AND ANALYTICAL TESTING PROGRAM

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- 5.1 Buildings to remain
- 5.2 Buildings to be demolished

Appendix A:

- Figure 1
- Laboratory Reports
- Chain of Custody Records

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

BULK SAMPLE SUMMARY

Company Name: Matrix Engineering Group — AES Job # B6759

Project Name : Brook Run / 97141.6 — Date Received 01/26/98

Microanalyst : Arkadiy Gendlin — Date Analyzed 01/26/98

CLIENT I.D.	AES LAB NUMBER	SAMPLE LOCATION	% OF ASBESTOS	TYPE OF ASBESTOS	CHRY IN BITUMEN
17A-B5-HI	103273	Bldg. 5 / Mech. Rm / Heating Ins.	ND		
18A-B5-FT	103274	Bldg. 5 / Hallway Floor Tile / Front 105	ND		
19A-B5-PM	103275	Bldg. 5 / Rm.170 / Plastic Molding	ND		
20A-B6-PI	103276	Bldg. 6 / Mech. Rm / Pipe Ins.	ND		
21A-B6-CK	103277	Bldg. 6 / Across Rm 253 / Caulking Above Slidering Dr.	ND		
22A-B7-WG	103278	Bldg. 7 / Mech. Rm / Wall Gypsum	ND		
23A-B14-WG	103279	Bldg. 14 / Basketball Rm. / Wall Gypsum	ND		
24A-B14-FC	103280	Bldg. 14 / Theater Rm. / Carpet	ND		
25A-B14-FC2	103281	Bldg. 14 / 2nd Floor / Carpet	ND		
26A-B14-FT	103282	Bldg. 14 / Behind Stage / Floor Tile	ND		
27A-B19-AR	103283	Bldg. 19 / Asphalt Roof Shingle	ND		
28A-B12-WG	103284	Bldg. 12 / Interior Wall Gypsum	ND		
29A-B12-GH	103285	Bldg. 12 / Moist Unit / Green House	ND		
30A-B13-CI	103286	Bldg. 13 / Ceiling Insulation	ND		
31A-B13-CT	103287	Bldg. 13 / Ceiling Tile	ND		
32A-B13-RF	103288	Bldg. 13 / Roof Felt	ND		
33A-B13-RS	103289	Bldg. 13 / Roof Shingles	ND		
34A-B15-FT	103290	Bldg. 15 / Left Entrance / Flr. Tile	<1%*	Chrysotile	
35A-B15-CT	103291	Bldg. 15 / Right Wing / Ceiling Tile	1-2%	Amosite	

ND - None Detected

* - Glue Contains 1-2% Chrysotile. Resilient Does Not Contain Asbestos.

Approved By: Mehmet Yildirim Date: JAN 27 1998

According to EPA Method 600/R-93/116. "Method for Determination of Asbestos in Bulk Building Material."

ANALYTICAL ENVIRONMENTAL SERVICES, INC.

BULK SAMPLE SUMMARY

Company Name: Matrix Engineering Group
Project Name : Brook Run / 97141.6
Microanalyst : Arkadiy Gendlin

AES Job # B6761
Date Received 01/24/98
Date Analyzed 01/27/98

CLIENT I.D.	AES LAB NUMBER	SAMPLE LOCATION	% OF ASBESTOS	TYPE OF ASBESTOS	CHRY IN BITUMEN
36A-B16-FT	103296	Bldg. 16 / Floor Tile / Rm. 4	ND		
37A-B16-CT	103297	Bldg. 16 / Hallway / Ceiling Tile	3%	Amosite	
38A-B16-CW	103298	Bldg. 16 / Rm. 4 / Wall	ND		

ND - None Detected

Approved By: Mehmet Yurteri Date: JAN 2 7 1998

According to EPA Method 600/R-93/116, "Method for Determination of Asbestos in Bulk Building Material."

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Pkwy, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

BULK ASBESTOS ANALYSIS

Client Name: Matrix Engineering Group
Address: 3300 Buckeye Road, Ste 525
City, State, Zip: Atlanta, GA 30341
Contact: Sam Al Yateem
Sampler's Name: O.S.A.

Phone: (770) 455-1780
Fax: (770) 455-1769
Project Name: BROOK RUN
Project Number: 97141.6
Sampling Date: 1-21-98

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	1-B9-FT	Building 9/Floor Tile	ACM	Normal		
2	2-B9-CT	Building 9/Ceiling Tile	ACM			
3						
4						
5						
6						
7						
8						
9						
10						
11						
12						
13						
14						
15						
16						
17						
18						
19						
20						

Relinquished by: Sam Al Yateem — Date/Time: 1-21-98 4:00 P.M
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time:

FOR LAB USE ONLY
Lab Recipient: L Wadd — Date/Time: 1/21/98 — Method of Shipment:

4:10 PM

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Pkwy, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

BULK ASBESTOS ANALYSIS

Client Name: Matrix Engineering Group
Address: 3300 Buckeye Rd Ste 525
City, State, Zip: Atlanta, GA 30341
Contact: Sam Al Yateem
Sampler's Name: E.T/S.A.
Phone: (770) 455-1780
Fax: (770) 455-1769
Project Name: Brook Run
Project Number: 97141.6
Sampling Date: 1/22/98

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
X	3A-B1-TI	Building 1/ Laundry Room Tank Insulation	ACM			
2	4A-B1-TI	Building 1/ Tank Insulation	ACM			
3	5A-B1-FT	Bdg 1/2nd Flr/Laundry Rm/H2O4B	ACM			
4	6A-B1-FC	Bdg 1/2nd Flr/Storage next to Elev C	ACM			
5	7A-B1-CT	Bdg 1/2nd Flr/Ceiling Tile front of Elev				
6	8A-B1-FC	Bdg 1/2nd Flr/Flr Tile Rm A212				
7	9A-B18-PI	Bdg 18/Mech. Rm/Pipe insulation				
8	10A-B3-PI	Bdg 3/Mech. Rm/Pipe insulation				
9	11A-B3-CK	Bdg 3/Hallway/Caulking Material				
10	12A-B4-TI	Bdg 4/Mech. Rm/Tank Insulation				
11	13A-B4-FT	Bdg 4/Flr Tile/Near Rm 103				
12	14A-B4-GP	Bdg 4/Gypsum Rm 231				
13	15A-B8-FC	Bdg 8/Flr Carpet Rm 105				
14	16A-B8-DT	Bdg 8/Duct Ins./Mech Rm near 211				
15						
16						
17						
18						
19						
20						

Relinquished by: Sam Al Yateem — Date/Time: 1-22-98 / 5:25 P.M.
Received by: _____ — Date/Time: _____
Relinquished by: _____ — Date/Time: _____
Received by: _____ — Date/Time: _____

FOR LAB USE ONLY
Lab Recipient: [signature] — Date/Time: 1/22/98 17:25p — Method of Shipment: Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Pkwy, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY
BULK ASBESTOS ANALYSIS

Client Name: Matrix Engineering Group
Address: 3300 Buckeye Rd, Ste. 525
City, State, Zip: Atlanta, GA 30341
Contact: Sam Al Yateem
Sampler's Name: S.T. / SA

Phone: (770) 455 1280
Fax: (770) 455 1769
Project Name: Brook Run
Project Number: 97141.6
Sampling Date: 1-23-98

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	17A B5-HI	Bldg 5/Mech. Rm/Heating Ins.	ACM			
2	18A B5-FT	Bldg 5/Hallway Floor Tile/Front 105	ACM			
3	19A B5-PM	Bldg 5/Rm 170/Plastic molding				
4	20A B6-PI	Bldg 6/Mech Rm/Pipe Ins.				
5	21A B6-CK	Bldg 6/Rm across 253/Caul/King sliding dr.				
6	22A B7-WG	Bldg 7/Mech. Rm/Wall Gypsum				
7	23A B14-WG	Bldg 14/Basketball Rm/Wall Gypsum				
8	24A B14-FC	Bldg 14/Theatre Rm/Carpet				
9	25A B14-FC2	Bldg 14/2nd Flr/Carpet				
10	26A B14-FT	Bldg 14/Behind Stage/Floor Tile				
11	27A B-19-AR	Bldg 19/Asphalt roof shingle				
12	28A B-12-WG	Bldg 12/Interior Wall Gypsum				
13	29A-B12-GH	Bldg 12/Moist. Unit/Green House				
14	30A-B13-CI	Bldg 13/Ceiling Insulation				
15	31A-B13-CT	Bldg 13/Ceiling Tile				
16	32A-B13-RF	Bldg 13/Roof felt				
17	33A-B13-RS	Bldg 13/Roof Shingles				
18	34A-B15-FT	Bldg 15/Left Entrance/Flr Tile	N			
19	35A-B15-CT	Bldg 15/Right Wing/Ceiling Tile	ACM			
20						

Relinquished by: Sam Al Yateem — Date/Time: 1-23-98 4:00 P.M.
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time:

FOR LAB USE ONLY
Lab Recipient: West — Date/Time: 1/23/98 16:30 — Method of Shipment: Client

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Pkwy, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / Fax (770) 457-8188

CHAIN OF CUSTODY

BULK ASBESTOS ANALYSIS

Client Name: Matrix Engineering Group
Address: 3300 Buckeye Rd, Ste. 525
City, State, Zip: Atlanta, GA 30341
Contact: Sam Al Jaleem
Sampler's Name: S.T / S.A.

Phone: (770) 455 1780
Fax: (770) 455 1769
Project Name: Brook Run
Project Number: 97141.6
Sampling Date: 1-24-98

	Sample ID	Sample Location/Description	Analysis Requested	Turnaround Time	Comments	For AES Use Only
1	36A B16 FT	Bldg 16/Flr Tile/ Rm 4	ACM	NORMAL		
2	37A B16 CT	Bldg 16/Hallway/Ceiling Tile	"	↓		
3	38A B16 CW	Bldg 16/Rm 4/Wall	"	↓		
4						
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18						
19						
20						

Relinquished by: Sam Al Jaleem — Date/Time: 1-24-98 4:30 P.M.
Received by: — Date/Time:
Relinquished by: — Date/Time:
Received by: — Date/Time:

FOR LAB USE ONLY
Lab Recipient: Mehmet Yildirim — Date/Time: 1/24/98 16:30 — Method of Shipment: Del. to the lab

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/22/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 1A-B9-FT AES LAB NO : 103097 AES JOB NO : B675

SAMPLE LOCATION : BUILDING 9 / FLOOR TILE

SAMPLE DESCRIPTION - BEIGE SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	90
CELLULOSE	1	GLUE	5
ANIMAL HAIR		BINDERS	3
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST: A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY: S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/22/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 2A-B9-CT AES LAB NO : 103098 AES JOB NO : B6751

SAMPLE LOCATION : BUILDING 9 / CEILING TILE

SAMPLE DESCRIPTION - GRAY SOFT FIBROUS TO PERLITIC WITH PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	30
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	35	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	20	GLUE	
ANIMAL HAIR		BINDERS	15
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

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MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 3A-B1-TI AES LAB NO : 103215 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	90	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	10
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 4A-B1-TI AES LAB NO : 103216 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION LIGHT BROWN SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	90	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	10
ANTIGORITE			

COMMENTS :

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MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 5A-B1-FT AES LAB NO : 103217 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE DESCRIPTION - GRAY SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	2	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	90
CELLULOSE	1	GLUE	5
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 6A-B1-FC AES LAB NO : 103218 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION BROWN TO YELLOW SEMI-HARD FIBROUS TO RESILIENT WITH GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		**NONFIBROUS COMPONENTS**	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		**OTHER COMPONENTS**	
SYNTHETICS	75	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	15
CELLULOSE	5	GLUE	3
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 7A-B1-CT AES LAB NO : 103219 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION LIGHT BROWN SOFT FIBROUS TO PERLITIC WITH PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	15
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	60	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	25
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

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MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 8A-B1-FC AES LAB NO : 103220 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE DESCRIPTION - BROWN TO LIGHT BROWN SEMI-HARD FIBROUS TO RESILIENT WITH GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	75	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	15
CELLULOSE	5	GLUE	3
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 9A-B18-PI AES LAB NO : 103221 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE DESCRIPTION - LAYERED: 1) LIGHT BROWN SOFT FIBROUS WITH ALUMINUM, GLUE & PAINT
2) YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	3
MINERAL WOOL		BITUMEN	
FIBERGLASS	80	RESILIENT MATERIAL	
CELLULOSE	10	GLUE	2
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

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MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY : S Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 10A-B3-PI AES LAB NO : 103222 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	95	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 11A-B3-CK AES LAB NO : 103223 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) LIGHT GRAY SEMI-HARD RESILIENT;
2) LIGHT BROWN SEMI-HARD SILTY WITH FIBERS AND PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	40
CELLULOSE	3	GLUE	
ANIMAL HAIR		BINDERS	56
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 12A-B4-TI AES LAB NO : 103224 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE DESCRIPTION - YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	95	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 13A-B4-FT AES LAB NO : 103225 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE DESCRIPTION - TAN SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	90
CELLULOSE	1	GLUE	2
ANIMAL HAIR		BINDERS	6
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen.

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 14A-B4-GP AES LAB NO : 103226 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) LIGHT GRAY HARD SILTY WITH PAINT;
2) LIGHT BROWN SEMI-HARD PARTLY GRANULAR WITH FIBERS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	35
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	1	GLUE	
ANIMAL HAIR		BINDERS	63
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY:

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 15A-B8-FC AES LAB NO : 103227 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) LIGHT BROWN TO YELLOW SEMI-HARD FIBROUS TO RESILIENT
2) BLACK SOFT VACUOUS WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	15
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	65	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	10
CELLULOSE	5	GLUE	3
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 16A-B8-DI AES LAB NO : 103228 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	90	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	10
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
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TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 17A-B5-HI AES LAB NO : 103273 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - YELLOW SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	95	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST A. Gendlin

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

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3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

IENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

OJECT NAME: BROOK RUN / 97141.6

MPLE ID : 18A-B5-FT AES LAB NO : 103274 AES JOB NO : B6759

MPLE LOCATION :

MPLE - SCRIPTION BEIGE SEMI-HARD RESILIENT WITH FIBERS & GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)

ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		**OTHER COMPONENTS**	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	85
CELLULOSE	1	GLUE	5
ANIMAL HAIR		BINDERS	8
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
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TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 19A-B5-PM AES LAB NO : 103275 AES JOB NO : B675

SAMPLE LOCATION :

SAMPLE DESCRIPTION - GRAY SEMI-HARD RESILIENT WITH FIBERS & GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)

ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		**OTHER COMPONENTS**	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	95
CELLULOSE	1	GLUE	1
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 20A-B6-PI AES LAB NO : 103276 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - DARK GRAY SOFT FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	90	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	10
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 21A-B6-CK AES LAB NO : 103277 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - LIGHT GRAY SEMI-HARD SILTY WITH FIBERS & PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	1	GLUE	
ANIMAL HAIR		BINDERS	98
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gendlin

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
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TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 22A-B7-WG AES LAB NO : 103278 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) LIGHT GRAY SEMI-HARD SILTY WITH FIBERS AND PAINT; 2) LIGHT BROWN SEMI-HARD PARTLY GRANULAR TO PERLITIC WITH FIBERS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	5
TREMOLITE		AGGREGATE/SAND	5
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	1	GLUE	
ANIMAL HAIR		BINDERS	88
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 23A-B14-WG AES LAB NO : 103279 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - LIGHT BROWN SEMI-HARD SILTY TO PERLITIC WITH FIBERS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	20
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	1	GLUE	
ANIMAL HAIR		BINDERS	78
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 24A-B14-FC AES LAB NO : 103280 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION BROWN TO YELLOW SEMI-HARD FIBROUS TO RESILIENT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	75	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	20
CELLULOSE	2	GLUE	
ANIMAL HAIR		BINDERS	3
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 25A-B14-FC2 AES LAB NO : 103281 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - BROWN TO LIGHT BROWN SEMI-HARD FIBROUS TO RESILIENT WITH GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	75	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	15
CELLULOSE	5	GLUE	3
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 26A-B14-FT AES LAB NO : 103282 AES JOB NO : B6755

SAMPLE LOCATION :

SAMPLE - DESCRIPTION BEIGE SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	95
CELLULOSE	1	GLUE	1
ANIMAL HAIR		BINDERS	2
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 27A-B19-AR AES LAB NO : 103283 AES JOB NO : B675

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) BLACK SEMI-HARD PARTLY GRANULAR TO BITUMENOUS; 2) BLACK SEMI-HARD BITUMENOUS TO FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	15
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	55
FIBERGLASS	25	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY :

S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
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TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 28A-B12-WG AES LAB NO : 103284 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION LAYERED: 1) LIGHT BROWN SOFT FIBROUS WITH PAINT;
2) LIGHT GRAY SEMI-HARD SILTY WITH FIBERS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS	3	RESILIENT MATERIAL	
CELLULOSE	25	GLUE	
ANIMAL HAIR		BINDERS	72
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

ENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

JECT NAME: BROOK RUN / 97141.6

PLE ID : 29A-B12-GH AES LAB NO : 103285 AES JOB NO : B6759

PLE LOCATION :

PLE - CRIPTION LIGHT BROWN TO GRAY SOFT FIBROUS TO SILTY.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)

ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
HRYSOTILE		VERMICULITE	
MOSITE		BIOTITE	
ROCIDOLITE		MICA	
NTHOPHYLLITE		PERLITE	
REMOLITE		AGGREGATE/SAND	
CTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		**OTHER COMPONENTS**	
YNTHETICS		ALUMINUM	
INERAL WOOL		BITUMEN	
IBERGLASS		RESILIENT MATERIAL	
ELLULOSE	80	GLUE	
NIMAL HAIR		BINDERS	20
NTIGORITE			

MENTS :

is certified by the signatures below that this laboratory is accredited the National Institute of Standards and Technology under NVLAP for the alysis of asbestos in building materials by polarized light microscopy. LAP Laboratory Code: 2033. Test report relates only to the items tested.

ROANALYST : A. Gen

ADIY GENDLIN

QUALITY CONTROL BY : S Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 31A-B13-CT AES LAB NO : 103287 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION GRAY SOFT FIBROUS TO PERLITIC WITH PAINT.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	25
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS		ALUMINUM	
MINERAL WOOL	45	BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	15	GLUE	
ANIMAL HAIR		BINDERS	15
ANTIGORITE			

COMMENTS : PAINT INCLUDED AS BINDER.

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 32A-B13-RF AES LAB NO : 103288 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE DESCRIPTION - BLACK SEMI-HARD FIBROUS TO BITUMENOUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	5	ALUMINUM	
MINERAL WOOL		BITUMEN	45
FIBERGLASS		RESILIENT MATERIAL	
CELLULOSE	45	GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gend

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 33A-B13-RS AES LAB NO : 103289 AES JOB NO : B6759

SAMPLE LOCATION :

SAMPLE - DESCRIPTION: LAYERED: 1) BLACK SEMI-HARD PARTLY GRANULAR TO BITUMENOUS; 2) BLACK SEMI-HARD BITUMENOUS TO FIBROUS.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)

ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE		VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	15
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		**OTHER COMPONENTS**	
SYNTHETICS		ALUMINUM	
MINERAL WOOL		BITUMEN	55
FIBERGLASS	25	RESILIENT MATERIAL	
CELLULOSE		GLUE	
ANIMAL HAIR		BINDERS	5
ANTIGORITE			

COMMENTS :

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST : A. Gen

ARKADIY GENDLIN

QUALITY CONTROL BY : S. Arkhipov

SVETLANA ARKHIPOV

Analytical Environmental Services, Inc.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
TEL: (770)457-8177 FAX: (770)457-8188

CLIENT NAME : MATRIX ENGINEERING GROUP DATE : 1/27/98

PROJECT NAME: BROOK RUN / 97141.6

SAMPLE ID : 34A-B15-FT AES LAB NO : 103290 AES JOB NO : B675

SAMPLE LOCATION :

SAMPLE DESCRIPTION - BEIGE SEMI-HARD RESILIENT WITH FIBERS AND GLUE.

RESULT OF BULK SAMPLE ANALYSIS (BY VISUAL VOLUMETRIC PERCENTAGE)			
ASBESTOS FIBERS		NONFIBROUS COMPONENTS	
CHRYSOTILE	< 1	VERMICULITE	
AMOSITE		BIOTITE	
CROCIDOLITE		MICA	
ANTHOPHYLLITE		PERLITE	
TREMOLITE		AGGREGATE/SAND	
ACTINOLITE		STYROFOAM	
NONASBESTOS FIBERS		OTHER COMPONENTS	
SYNTHETICS	1	ALUMINUM	
MINERAL WOOL		BITUMEN	
FIBERGLASS		RESILIENT MATERIAL	90
CELLULOSE	1	GLUE	5
ANIMAL HAIR		BINDERS	3
ANTIGORITE			

COMMENTS : GLUE CONTAINS 1-2% CHRYSOTILE. RESILIENT DOES NOT CONTAIN ASBESTOS

It is certified by the signatures below that this laboratory is accredited by the National Institute of Standards and Technology under NVLAP for the analysis of asbestos in building materials by polarized light microscopy. NVLAP Laboratory Code: 2033. Test report relates only to the items tested.

MICROANALYST :

ARKADIY GENDLIN

QUALITY CONTROL BY :

SVETLANA ARKHIPOV

1.0 INTRODUCTION

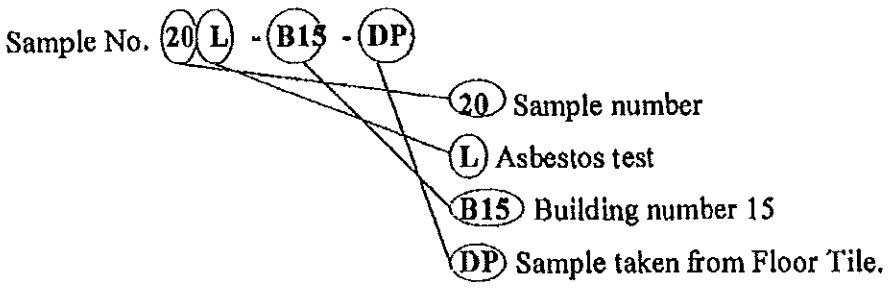
Matrix Engineering Group has performed a limited lead-based paint sampling and testing at the subject site. The purpose of the sampling was to collect representative samples from predominant surfaces throughout the building. Results can be utilized for planning renovations, and incorporating any lead-based paint requirements, which may be necessary to control occupant and construction worker exposures. The samples were collected from the existing structures during the site visits that were conducted as part of the Environmental Study - Phase I. Drinking water was also sampled and tested for presence of lead.

The suspect lead-based paint identified within the existing structures included, but was not limited to, surface paints from walls, doors, windows, ceilings, and mechanical equipment.

2.0 SAMPLING AND ANALYTICAL TESTING PROGRAM

Water and bulk samples were collected for lead-based paint testing. The lead-based paint samples were taken from accessible areas, such as hallways, ceilings, doors, and mechanical equipment at each structure. No attempts were made to disassemble equipment, demolish structural and finish materials. Sampling of lead-based paint from inaccessible areas was not in the scope of this phase. The areas that were not sampled included, but were not limited to, steel beams, columns, surface paints on equipment and pipes that are above ceilings, roofs, or underground.

A total of twenty-three (23) suspect lead-based paint samples were collected from readily accessible areas from the existing structures. Additionally, two (2) drinking water samples were collected; one at the water fountain in the Administration Building (#8), and the other from the bathroom faucet at the Maintenance Building (Building # 9). The water samples were placed in containers prepared by Analytical Environmental Services, Inc. and the bulk samples were placed in plastic containers and transported to the laboratory for testing. The sample type, date, and location were recorded on the Chain of Custody, which are provided in Appendix A of this report. The test samples were labeled in a manner that includes the building number, the type of test performed, and the type of material sampled. The following sample number designation was used to provide the reader with a quick reference:



The building numbers are provided in Figure 1, Appendix A of this report. Additional sample descriptions are provided in the Chain of Custody records. The following sample designations were used:

P: Paint	DP: Door Paint
SDP: Sliding Door Paint	EP: Equipment Paint
WP: Wall Paint	FDP: Front Door Paint
WP: Wall Paint	WG: Wall Gypsum

The laboratory testing was performed utilizing EPA Method 200.7 for the water samples and Hotplate or Microwave Based Acid Digestions and AA or ICP for the lead-based paint bulk samples. A description of the materials sampled, analytical results, and Chain of Custody records are provided in Appendix A.

3.0 ANALYTCAL TEST RESULTS

The analytical test results showed that the water was free of lead. However, lead was detected in several of the paints and surface coatings samples that were collected from the structures. The samples that contained lead, their locations, and the lead levels are provided in the following table. A detailed information of all the samples that were tested is provided in Appendix A of this report.

Sample No.	Description and Location	Level (% by weight)
5L-B1-WP	Wall paint, Building 1, Laundry Rm,	0.03
6L-B1-WP	Wall paint, Building 1, Second Floor Mechanical Rm D201A	4.51
9L-B3-EP	Equipment paint, Building 3, Mechanical Room	0.72
11L-B8-WP	Wall paint, Building 8, Room 102	0.89
12L-B5-DP	Door paint, Building 5, Restroom	0.25
12L-B6-EP	Equipment paint, Building 6, Mechanical Room	0.30
15L-B9-BP	Surface paint, Building 9, Second Floor, Locker Rm	0.25
17L-B14-DP	Door-frame paint, building 14, first floor	2.15
18L-B14-SDP	Sliding door paint, Building 14, Behind stage	0.14
20L-B13-FP	Furnace paint, Building 13	0.10
22L-B16-DP	Door paint, Building 16, Room 109	0.75
23L-B16-FDP	Front door paint, Building 16, Room 4	0.49
24L-NPL-P	Surface paints, 18,000-gallon Natural liquid phase tanks	0.49

4.0 REGULATORY REVIEW

In June, 1977, lead-based paint was defined as paint containing more than 0.06% lead, and the Consumer Product Safety Commission banned the sale of lead-based paint to consumers and the use of lead-based paint in residences and other areas where consumers have direct access to painted surfaces. Throughout the 1980's and 1990's, the Department of Housing and Urban Development has been involved in lead-based paint regulation and development of technical guidelines for testing, abatement, clean-up and disposal of lead-

based paint. HUD defines lead-based paint as any applied coating which contains 0.5% lead, by weight. The definition is provided in their 1995 publication, *Guidelines for the Evaluation and Control of Lead-Based Paint Hazards in Housing*. The presence of lead-containing paint does not in itself necessarily constitute a hazard. A lead-based paint hazard is defined as "any condition that causes exposure to lead that would result in adverse human health effects". Such exposures would come from lead-contaminated dust; lead contaminated soil; lead-based paint that is deteriorated or present, accessible, friction or impact surfaces.

The purpose of the HUD Guidelines is to reduce childhood exposure to lead in housing and child-occupied facilities. There does not exist a set of guidelines for the commercial or office environment. OSHA, which governs workplace hazards, is concerned with exposures generated in more traditional industrial related settings, and also during construction-related activities. The OSHA Lead in Construction Standard (29 CFR 1926.62) would apply during any renovation or repair activities. OSHA's definition of lead-based paint includes any amount of lead in paint. Other regulations which would apply to the Brook Run facility would be disposal of construction debris which includes any painted components. This disposal is governed under EPA's RCRA regulations, and tests of the construction waste stream are required to determine disposal requirements.

5.0 FINDINGS AND RECOMMENDATIONS

The analytical test results revealed that lead-based paints are present in several areas with lead concentration above the action level of 0.5% by weight. The state and federal regulations instituted strict guidelines for lead activities, such as, a survey prior to abatement, notification protocol, abatement procedures, monitoring requirements, and disposal of lead-based paints

We observed during our visits that new paints were applied on top of the lead-based paints inside the buildings. Mr. Garry Jackson, facility engineer of the State of Georgia, stated that the new paint that was used did not contain any lead. Based on these preliminary test results, it appears that abatement of lead-based paints was not performed prior to applying the new paints. Furthermore, upon a review of some of the design drawings prepared by Jones and Associates Architects and Engineers dated February 1966, lead-based paints were specified in the design drawings for the structural steel at the Cherry Tree Buildings (Building #1). Accordingly, based on the findings of the limited testing program performed, we provide the following recommendations.

5.1 Buildings to remain

Based on the site reconnaissance performed, it was observed that new non lead-based paints, which generally appeared to be in fair to good condition, covered most interior walls and surfaces. Therefore, we believe that minimum abatement and/or renovation will be required to prepare these buildings for occupancy. Mr. Garry Jackson of the State of Georgia indicated that a lead-based paint survey was never performed at the subject site. Therefore, it is recommend that a risk assessment including lead-based paint survey be

performed in accordance with the federal and local agencies guidelines in order to document the existing conditions and determine the areas that require repairs and/or abatement.

5.2 Buildings to be demolished

We recommend that the following be taken into consideration for demolishing of the buildings:

1. A survey to determine the presence and the extent of lead-based paints,
2. abatement and/or demolishing procedures to comply with local and federal requirements,
3. appropriate quality control measure such as testing and monitoring of the removal and/or demolishing to ensure safety of the workers, and,
4. appropriate disposal and/or recycling of these materials.

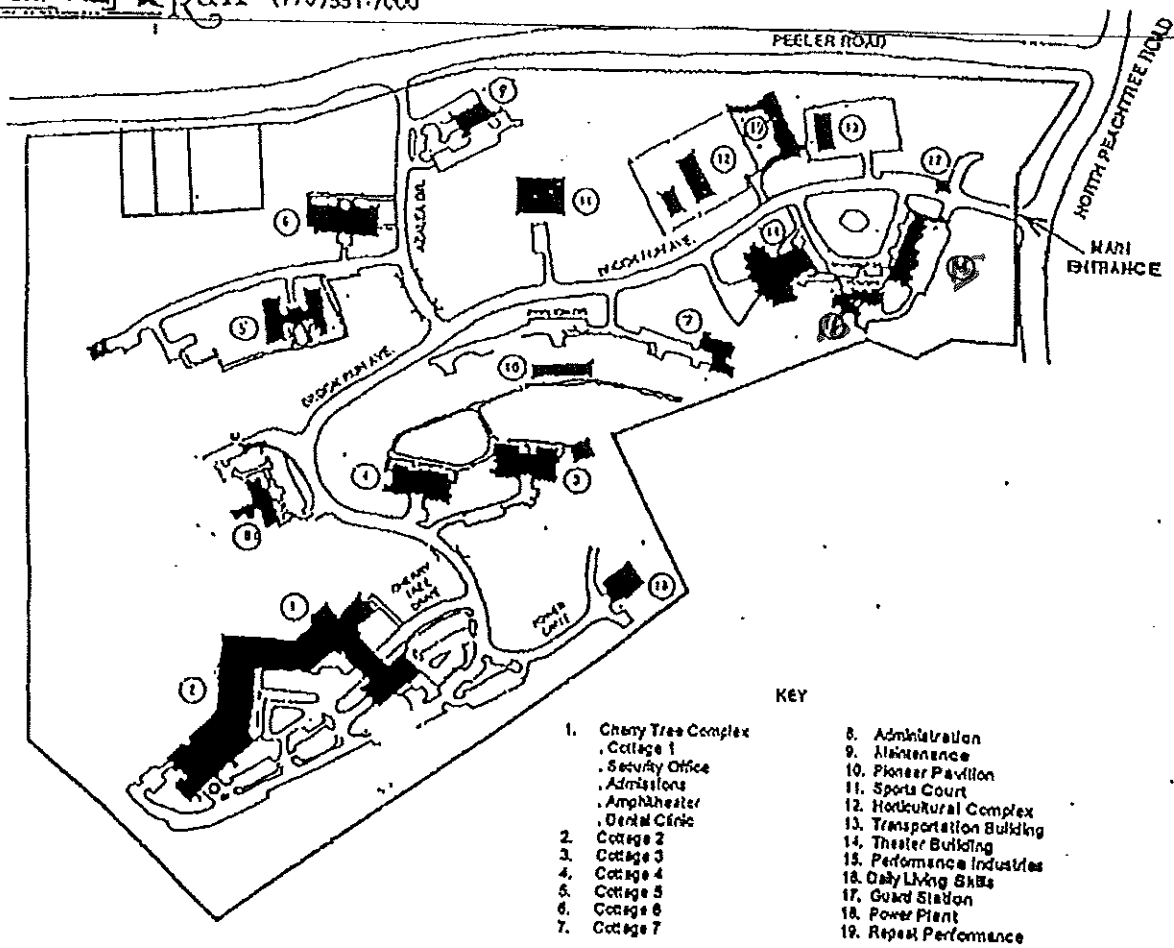
The attached documents complete this report

APPENDIX A

SITE LOCATION & BUILDING LAYOUT
LABORATORY TEST RESULTS
CHAIN OF CUSTODY RECORDS

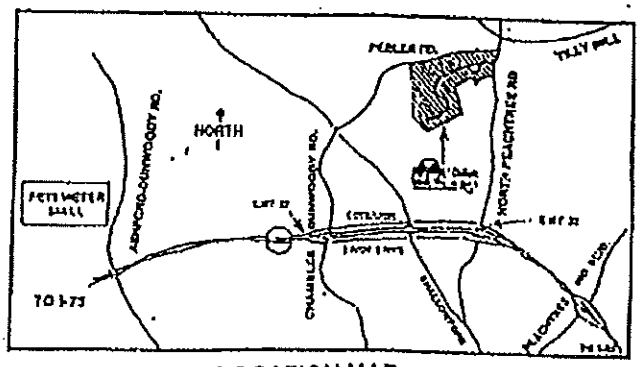
Brook Run

4770 North Peachtree Road
Dunwoody, Georgia 30338-5813
(770)551-7000



KEY

1. Cherry Tree Complex
   - Cottage 1
   - Security Office
   - Admissions
   - Amphitheater
   - Dental Clinic
2. Cottage 2
3. Cottage 3
4. Cottage 4
5. Cottage 5
6. Cottage 6
7. Cottage 7
8. Administration
9. Maintenance
10. Pioneer Pavilion
11. Sports Court
12. Horticultural Complex
13. Transportation Building
14. Theater Building
15. Performance Industries
16. Daily Living Skills
17. Guard Station
18. Power Plant
19. Repeat Performance



LOCATION MAP

MATRIX ENGINEERING GROUP

ATLANTA, GEORGIA

CLIENT

Dekalb County Roads & Drainage, Decatur, GA

TITLE

Site Location & Building Layout
Brook Run Facility
4770 North Peachtree Road
Dunwoody, Georgia

DRAWN	REVIEWED	DATE	SCALE	PROJECT NUMBER	FIGURE
-	SA	1/25/98	-	97141.6	1

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN PAINT

PB92-114172 : "EPA SOPs for Lead in Paint by Hotplate or Microwave Based Acid Digestions and AA or ICP", September, 1991.

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: N/A
P.O. Number : N/A

Matrix : Paint
Analyst: MJ
Date Received: 1/21/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7752-1	1L-B9-W	<0.01	Weight %	0.01	1	1/21/98	1/26/98
C7752-2	2L-B9-W	<0.01	Weight %	0.01	1	1/21/98	1/26/98

Batch QC: **Batch #:**

Precision	N/A	% RPD	Sample I.D.
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

Approved By: Mehmet Yildiz Date: JAN 2 6 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN DRINKING WATER

EPA Method 200.7

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: N/A
P.O. Number : N/A

Matrix : Water
Analyst: MJ
Date Received: 1/21/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7752-3	3L-B9-BF	<0.010	mg/L	0.010	1	1/21/98	1/23/98
C7752-4	4L-B9-WF	<0.010	mg/L	0.010	1	1/21/98	1/23/98

Batch QC: **Batch #:**

			Sample I.D.
Precision	N/A	% RPD	
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

Approved By: Michael R. Feldmann Date: JAN 2 6 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN PAINT

PB92-114172 : "EPA SOPs for Lead in Paint by Hotplate or Microwave Based Acid Digestions and AA or ICP", September, 1991.

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: 97142
P.O. Number : N/A

Matrix : Paint
Analyst: MJ
Date Received: 1/22/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7764-1	5L-B1-WP	0.03	Weight %	0.01	1	1/22/98	1/27/98
C7764-2	6L-B1-WP	4.51	Weight %	0.01	9	1/22/98	1/27/98
C7764-3	7L-B1-WP	<0.01	Weight %	0.01	1	1/22/98	1/27/98
C7764-4	8L-B18-WP	<0.01	Weight %	0.01	1	1/22/98	1/27/98
C7764-5	9L-B3-EP	0.72	Weight %	0.01	1	1/22/98	1/27/98
C7764-6	10L-B4-WP	<0.01	Weight %	0.01	1	1/22/98	1/27/98
C7764-7	11L-B8-WP	0.89	Weight %	0.01	2	1/22/98	1/27/98

Batch QC: **Batch #:**

			Sample I.D.
Precision	N/A	% RPD	
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

Approved By: Mehmet Yildirim Date: JAN 27 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN PAINT

PB92-114172 : "EPA SOPs for Lead in Paint by Hotplate or Microwave Based Acid Digestions and AA or ICP", September, 1991.

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: 97141.6
P.O. Number : N/A
Matrix : Paint
Analyst: MJ
Date Received: 1/23/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7779-1	12LB5DP	0.25	Weight %	0.01	1	1/23/98	1/27/98
C7779-2	13LB6EP	0.30	Weight %	0.01	1	1/23/98	1/27/98
C7779-3	14LB6DP	<0.01	Weight %	0.01	1	1/23/98	1/27/98
C7779-4	15LB9BP	0.25	Weight %	0.01	1	1/23/98	1/27/98
C7779-5	16LB7WP	<0.01	Weight %	0.01	1	1/23/98	1/27/98
C7779-6	17LB14DP	2.15	Weight %	0.01	3	1/23/98	1/27/98
C7779-7	18LB14SDP	0.14	Weight %	0.01	1	1/23/98	1/27/98
C7779-8	19LB19EWP	<0.01	Weight %	0.01	1	1/23/98	1/27/98
C7779-9	20LB13FP	0.10	Weight %	0.01	1	1/23/98	1/27/98
C7779-10	21LB15SP	<0.01	Weight %	0.01	1	1/23/98	1/27/98

Batch QC: **Batch #:**

			Sample I.D.
Precision	N/A	% RPD	
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

Approved By: [signature] Date: JAN 28 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN PAINT

PB92-114172 : "EPA SOPs for Lead in Paint by Hotplate or Microwave Based Acid Digestions and AA or ICP", September, 1991.

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: 97141.6
P.O. Number : N/A

Matrix : Paint
Analyst: MJ
Date Received: 1/24/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7781-1	22LB16DP	0.75	Weight %	0.01	1	1/24/98	1/27/98
C7781-2	23LB16FDP	0.49**	Weight %	0.01	1	1/24/98	1/27/98

Batch QC: **Batch #:**

Precision	N/A	% RPD	Sample I.D.
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

**Sample size less than required by the method.

Approved By: Helmut Schlichting Date: JAN 2 8 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Ste. 111
Atlanta, Georgia 30340
Ph. (770) 457-8177

TOTAL LEAD IN PAINT

PB92-114172 : "EPA SOPs for Lead in Paint by Hotplate or Microwave Based Acid Digestions and AA or ICP", September, 1991.

Client Name : Matrix Engineering Group
Project Name : Brook Run
Project Number: 97141.6
P.O. Number : N/A
Matrix : Paint
Analyst: MJ
Date Received: 1/27/98

Laboratory I.D.	Client Sample I.D.	Results	Units	MDL[1]	DF[2]	Date Collected	Date Analyzed
C7796-1	24L NPL-P	0.49	Weight %	0.01	1	1/26/98	1/28/98
C7796-2	25L NPL-P	<0.01	Weight %	0.01	1	1/26/98	1/28/98

Batch QC: **Batch #:**

Precision	N/A	% RPD	Sample I.D.
Spike Recovery	N/A	% Recovery	
Blank	N/A		

[1] MDL - Method Detection Limit [2] DF - Dilution Factor

Approved By: [signature]

Date: JAN 30 1998

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Pkwy., Suite 111, Atlanta, GA 30340
PH. (770) 457-8177 (800) 972-4889

TRANSMITTAL SHEET CHEMICAL ANALYSIS

CLIENT NAME: Matrix Engineering Group
ADDRESS: 3300 Buckeye Ld Ste 525
CONTACT: Sam Al Yateem
PHONE NO.: 770 455 1780

PROJECT NAME: Brook Run
SITE LOCATION: DeKalb County, GA
SAMPLERS NAME: Sam Al Yateem
COMPANY: Matrix Engineering Group.

Chain of Custody Record

SAMPLE ID.	SAMPLE DESCRIPTION (ie. Location, Name, etc.)	COLLECTED		SAMPLE TYPE			SAMPLE INFORMATION		ANALYSIS REQUIRED					
		Date	Time	Comp.	Grab	Other	Preservative	No. of Containers		LEAD				Remarks
1L-B9-W	B9-Paint-Interior	1/21/98	PM 2:00				NONE	1		X				CN952-1
2L-B9-W	B9 Paint-Exterior	1/21/98	3:15				NONE	1		X				-2
3L-B9-BF	B9-Water	1/21/98	3:20		X		HNO3	1		X				-3
4L-B9-WF	B9 Water	1/21/98	3:30		X		HNO3	1		X				-4

Turnaround Time: Normal [X] Rush [ ]

Comments:

Relinquished By:	Sam Al Yateem	Date/Time	1/21/98 4:00P
Received By:		Date/Time	
Relinquished By:		Date/Time	
Received By:		Date/Time	

Delivered Directly to Lab: [X] Shipped: [ ]

Method of Shipment:

Lab Recipient: Date: 1/21/98 16:00

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / fax: (770) 457-8188

CHAIN OF CUSTODY RECORD

CHEMICAL ANALYSIS

Company Name: Matrix Engineering Group
Address: 3500 Buckeye Rd Ste 525
City, State, Zip: Atlanta, GA 30341
Contact Person: Sam Al Yateem
Sampler's Name: S.T / S.A.

Phone Number: 770 455 1780
Fax Number: 770 455 1769
Project Name: Brook Run
Project Number: 97141.6
Purchase Order #:

Turnaround Time Requested
- ☒ Standard-3-5 Business Days (for most analyses)
- ○ Same Day Rush
- ○ Next Business Day Rush
- ○ 2 Business Day Rush
- ○ Other

Sample ID #	Sample Description/Location	Collected: Date	Collected: Time	Composite	Grab	Preservative	No. of Containers	Analysis/Method Required: LEAD	Comments/Special Instructions
12BS DP	Bdg 5/Restroom/Door Paint	1-23-98	12:05					X	507281
13B6 EP	Bdg 6/Mech. Rm/Equip Paint	1-23-98	12:30					X	-2
14L B6 DP	Bdg 6/Rm 102/Door Paint	1-23-98	1:00					X	-3
15L B9 BP	Bdg 9/2nd Flr./Locker Rm/Paint	1-23-98	1:20					X	-4
16L B7 WP	Bdg 7/Mech. Rm/Wall Paint	1-23-98	1:40					X	-5
17L B14 DP	Bdg 14/1st Flr/Door Frame Paint	1-23-98	1:50					X	-6
18L B14 SDP	Bdg 14/Behind stage/Sliding Dr.	1-23-98	2:00					X	-7
19L B19 EWP	Bdg 19/Ext. Wall Paint	1-23-98	2:20					X	-8
20L B13 FP	Bdg 13/ Furnace paint	1/23/98	3:00					X	-9
21L B15 BP	Bdg 15/Right Wing/Shelf Paint	1/23-98	3:15						-10

Relinquished By: Sam Al Yateem
Received By: K Weston
Relinquished By:
Received By:

Date/Time: 1/23/98 4:00pm
Date/Time: 1/23/98 1600
Date/Time:
Date/Time:

Received for Lab By:
Date/Time:

Method of Shipment:
(Circle One) Hand-delivered FEDEX UPS U.S.Mail
Courier Service:
Other:

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / fax: (770) 457-8188

CHAIN OF CUSTODY RECORD

CHEMICAL ANALYSIS

Company Name: Matrix Engineering Group
Address: 3300 Buckeye Rd, Ste 525
City, State, Zip: Atlanta, GA 30341
Contact Person: Sam Al Yatteen
Sampler's Name: E.T. / SA

Phone Number: 770 455 1780
Fax Number: 770 455 1769
Project Name: Brook Run
Project Number: 97141.6
Purchase Order #:

Turnaround Time Requested:
- ☒ Standard-3-5 Business Days *(for most analyses)*
- ○ Same Day Rush
- ○ Next Business Day Rush
- ○ 2 Business Day Rush
- ○ Other

Sample ID #	Sample Description/Location	Collected: Date	Collected: Time	Composite	Grab	Preservative	No. of Containers	Analysis/Method Required: LEAD								Comments/Special Instructions
5L-B1-WP	Bdg 1/Laundry Rm/Wall Paint	1-22-98	2:40					X								C9764-1
6L-B1-WP	Bdg 1/2nd Flr./Mech Rm/D201A	1-22-98	3:00					X								-2
7L-B1-WP	Bdg 1/2nd Flr./Rm A212	1-22-98	3:15					X								-3
8L-B18-WP	Bdg 18/Near Restroom/Powder Plant	1-22-98	3:30					X								-4
9L-B3-EP	Bdg 3/Mech. Rm/Equip paint	1-22-98	3:45					X								-5
10L-B4-WP	Bdg 4/Wall Paint ~~room~~ 231	1-22-98	4:05					X								-6
11L-B8-WP	Bdg 8/Wall Paint Rm. 102	1-22-98	4:30					X								-7

Relinquished By: Sam Al Yatteen — Date/Time: 1-22-98 5:30
Received By: [signature] — Date/Time: 1/22/98 17:30
Relinquished By: — Date/Time:
Received By: — Date/Time:

Received for Lab By: — Date/Time:

Method of Shipment: (Circle One) Hand-delivered FEDEX UPS U.S.Mail
Courier Service: Other:

ANALYTICAL ENVIRONMENTAL SERVICES, INC.
3781 Presidential Parkway, Suite 111, Atlanta, GA 30340
(770) 457-8177 / Toll-Free (800) 972-4889 / fax: (770) 457-8188

CHAIN OF CUSTODY RECORD

CHEMICAL ANALYSIS

Company Name: Matrix Engineering Group
Address: 3300 Buckeye Rd, Ste 525
City, State, Zip: Atlanta, GA, 30341
Contact Person: Sam AC Yateem
Sampler's Name: S.T./S.A.

Phone Number: 770 455 1780
Fax Number: 770 455 1769
Project Name: Brook Run
Project Number: 97141.6
Purchase Order #:

Turnaround Time Requested:
- ☒ Standard-3-5 Business Days (for most analyses)
- ○ Same Day Rush
- ○ Next Business Day Rush
- ○ 2 Business Day Rush
- ○ Other

Sample ID #	Sample Description/Location	Collected: Date	Collected: Time	Composite	Grab	Preservative	No. of Containers	Analysis/Method Required: LEAD								Comments/Special Instructions
22L B16 DP	Bldg 16/Rm 109/Door Paint	1-24-98	10:30					X								C7281-1
23L B16 FDP	Bldg 16/Rm 4/Front Dr. Paint	1-24-98	11:00					X								-2

Relinquished By: Sam AC Yateem Date/Time: 1-24-98 4:30 pm
Received for Lab By: [signature] Date/Time: 1/24/98 16:30
Received By: Date/Time:
Relinquished By: Date/Time:
Received By: Date/Time:

Method of Shipment: (Circle One) **Hand-delivered** (circled) FEDEX UPS U.S.Mail
Courier Service: Other:

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- ○ 2 Business Day Rush
- ○ Other ______

Sample ID #	Sample Description/Location	Collected: Date	Collected: Time	Composite	Grab	Preservative	No. of Containers	Analysis/Method Required: LEAD							Comments/Special Instructions
24L NPL-P	Paint of Large Nat. Gas Tank	1-26-98	4:00 PM					X							C7796-1
25L NPL-P	Paint of Blue Tank @ NPL Area	1-26-98	4:16 PM					X							-2

Relinquished By: Sals Tolashe Date/Time: 1/27/98 1307 PM
Received By: ______ Date/Time: ______
Relinquished By: ______ Date/Time: ______
Received By: ______ Date/Time: ______

Received for Lab By: [signature] Date/Time: 1/27/98 13:07

Method of Shipment: (Circle One) Hand-delivered FEDEX UPS U.S.Mail
Courier Service: ______ Other: ______

Dunwoody
*Smart people – Smart city

~Parks~
Brent Walker
Phone: 678-382-6850

Brook Run Theater Demo

Date: 7/22/2016

- Construction Entrance
- Chain Link Fence
- Silt Fence SD-1C Double Row
- Tree Save
- Building/Other Demo
- Concrete/Sidewalk Demo
- 2' Topo
- Storm Structure
- Storm Conveyance

Sewer Manholes

- DeKalb
- Atlanta
- Not in County
- Private

Sewer Gravity Mains

- DeKalb
- Private
- Atlanta

Water Mains

- <12"
- >12"

N

0 25 50 Feet